

Columbia River



As neighbors, we all need to do what we can to protect one of our region's most treasured natural resources — the Columbia River.

- Fluor Daniel Hanford, Inc.
- B&W Hanford Company
- DE&S Hanford, Inc.

Bechtel's 'plan on how to plan' for water problems sent to DOE

By John Stang
Herald staff writer

A "plan on how to plan" the coordination of Hanford's subterranean water programs went to the Department of Energy on Friday.

This was the first step in Hanford's efforts to map out an overall plan to tackle its contaminated subterranean water problems.

Bechtel Hanford Inc. is in charge of the effort, and submitted its recommendations Friday, which was the deadline.

DOE expects to decide in March whether to approve Bechtel's recommendation. Then Bechtel is scheduled to submit the actual plan to DOE by Sept. 30.

"It's not going to be simple, but it'll be doable," said Mike Hughes, Bechtel's vice president for operations.

Hanford already has several programs mapping subterranean water contamination and treating it, including work by Hanford's tank-farm program and the Pacific Northwest National Laboratory.

But these efforts have not been coordinated into one master program to coordinate sampling, analysis, treatment and tank-waste issues.

PNNL and DOE. Fluor, which is Hanford's site manager, will be in charge of actually putting the plan into action.

The planning will look at coordination issues and find possible gaps in the overall subterranean water fix-it picture, said Hughes and Rich Holten, DOE's division director for remedial projects in environmental restoration.

The upcoming plan is supposed to begin translating into action in the field beginning in fiscal 1999, they said.

Subterranean Hanford is a massive patchwork of plumes of radioactive and nonradioactive contaminants from its Cold War plutonium production days.

More than 300 billion gallons of water with diluted radioactive and hazardous wastes have ended up in the ground during 50 years from numerous trenches, small tanks, pipes and other dump sites.

Meanwhile, 54 million gallons of

highly radioactive wastes are stored in 177 underground tanks in central Hanford. Sixty-seven — and possibly 68 — of those tanks have leaked about 1 million gallons.

The bottom line is that 200 square miles of Hanford's aquifer are contaminated, with about 100 square miles of the contamination exceeding federal drinking water standards.

Meanwhile, scientists have a hazy, partly confirmed, partly theoretical picture of how the wastes travel underground toward the Columbia River.

Another complicating factor is the "vadose zone" — the subterranean area between the surface and the ground water. Hanford's scientists have an even more limited picture of how contaminants seep through it.

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

Hanford cuts affecting WSU Tri-Cities associate dean.

By Chris Mulick
Herald staff writer

Hanford cutbacks are taking their toll on enrollment at Washington State University at Tri-Cities in Richland.

There are 10 percent fewer students enrolled at WSU Tri-Cities now than there were a year ago, according to figures released Friday. Administrators say an unexpected number of students decided to take the semester off, allowing the enrollment to slip by 139 to 1,185.

Tri-Cities was the only WSU campus to sustain a significant enrollment decrease from last spring. WSU-Spokane and the Pullman campus held about even, while WSU-Vancouver saw an enrollment increase of almost 15 percent.

The enrollment decline in the Tri-Cities is attributed in part to a drop in interest from Hanford because of cutbacks. Workers who remain at Hanford are handling additional responsibilities, and schoolwork isn't fitting into their schedule, said Duaine Lindstrom,

WSU Tri-Cities associate dean.

"We've got a lot of students working on projects (at Hanford), and they don't have time for class," Lindstrom said. "Some people are just working harder and some have left town. Both of those are effects of Hanford cutbacks."

Under its educational assistance program, Fluor Daniel pays tuition and fees for employees who wish to further their education in their field. No policy changes have been made recently that would adversely affect enrollment at WSU Tri-Cities, said Gordon Beecher, director of human resources at Fluor Daniel.

The enrollment decreases in Richland resulted from fewer students in the environmental sciences, such as environmental engineering and chemistry. Last

All the demographics suggested we should be at least even. You need to convert positive demographics into students in the classroom.

Jim Cochran
WSU Tri-Cities dean

spring because of all the new students on campus.

"I had anticipated we would be at least even and maybe up, and we had geared ourselves to be up," he said. "All the demographics suggested we should be at least even. You need to convert positive demographics into students in the classroom."

Hanford may get chance to power probes

FMEF considered for production of nuclear batteries

By John Stang
Herald staff writer

Hanford has a 1-in-8 chance of playing a role in the nation's effort to reach deep outer space.

The possible role: assembling plutonium-powered batteries to power space probes.

The possible player: Hanford's never-used Fuel Materials Examination Facility, or FMEF.

In late January, eight Department of Energy sites — including Hanford — submitted proposals to assemble the plutonium-powered batteries.

DOE officials are tentatively set to decide on one of the sites before the end of March.

The assembly plant is expected to take two years to build, beginning in 2000, and cost \$44 million. Once completed in 2002, it would employ about 40 people. The predicted annual operating budget is \$9 million.

When the United States sends probes to the outer reaches of the solar system, a basic problem is providing electrical power, said Al Farabee, the DOE project manager for the Hanford proposal.

The probes would be too far from the sun to use solar panels effectively.



Herald/Bob Brawdy

Jim Steffen, B&W Hanford's manager for fuel fabricating operations, explains how existing components could be used to assemble nuclear-powered batteries for NASA.

And any practical-sized chemical battery would not last long enough.

What the National Aeronautics and Space Administration has used are called "Radioisotope Thermoelectric Generators" — essentially nuclear batteries.

Plutonium 238 is put inside an iridium capsule about twice the thickness and half the length of a human thumb. Seventy-two of those tiny capsules are collected inside a 125-pound, 4½-foot-tall battery.

valley Community College and nitting up students who said they were only taking some time off, Cochran hopes to more aggressively recruit Columbia Basin College students.

"We've been priming the pump there," Cochran said.

Cochran doesn't expect the enrollment decrease to hurt chances to get a new \$22 million science and education building at the campus because other programs with stable enrollment also would be housed there.

Still, the numbers indicate the growth of the campus is slowing.

"Over the long haul, the campus has been in a growth mode," Cochran said. "We're paused this year."

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orbiting the Sun.

The plutonium in the Cassini probe sparked protests when it was launched several months ago.

Farabee said the 72 iridium capsules are divided four each into 18 containers which are designed to withstand a rocket explosion or falling through the Earth's atmosphere.

The plutonium is put into the capsules at DOE's Los Alamos lab. And DOE plans for Los Alamos to keep that role, Farabee said. The batteries were assembled at DOE's site at Mound, Ohio.

Now, DOE is looking into whether better facilities could be used to assemble the Radioisotope Thermoelectric Generators for the space program and for some classified defense programs.

The plant isn't expected to turn out a lot of batteries, although the exact amount is difficult to pin down, Farabee said.

However, workers will need six to eight months to assemble and test a Radioisotope Thermoelectric Generator, he said.

That time is needed to complete a lot of delicate work in ultra-clean chambers and to conduct numerous, complicated tests to ensure the batteries will work reliably in space, Farabee said.

Meanwhile, Hanford's massive FMEF building sits next to the Fast Flux test Facility — never used since it was built the 1980s for a breeder reactor program that

See Probes, Page A2

Hanford tank farms mark safety milestone

Hanford's tank farm operation led by Lockheed Martin Hanford Corp. recently posted its 1 millionth hour worked without an accident that caused an employee to miss a work day.

That 1 million-hour mark was reached Jan. 27.

The streak stretches back to mid-August 1997 when an employee lost two work days because of a back strain. The accident occurred when the tank farms team reached the 988,000-hour mark.

The roughly 1,100 employees involved come from Lockheed Martin, Fluor Daniel Hanford and DE&S Hanford.

Hanford advisers urge swift tank effort

By Melissa O'Neil
Herald staff writer

The Hanford Advisory Board took a rare step Friday when it demanded the government take swift action for cleaning up tank waste.

The group sent a one-page letter — followed by four pages with 42 signatures — to the U.S. secretary of Energy, Northwest governors and Congress members. The letter expresses the board's frustrations with the 54 million gallons of nuclear waste stored in Hanford's underground tanks, with no money available to build a treatment system.

Seventy of the 177 tanks have leaked, putting about 1 million gallons of waste into the soil and ground water. It describes the \$200 million spent each year as maintaining "a semblance of safe storage."

"We'd like them to understand the Hanford Advisory Board is made up of all the different individuals and interest groups, and this is where they agree," advisory board Chairwoman Marilyn Reeves said. "It's like 42 of us appeared in person."

The Hanford Advisory Board was created four years ago to advise Hanford's cleanup program. Its members represent city, county and tribal governments, workers, environmental groups, public health agencies, businesses and other public interest groups. Reeves, who lives near Salem, Ore., represents the public at large.

The board has 30 members with several alternates. It usually operates by consensus — almost everyone generally agrees — with lengthy technical advice put together and signed only by Reeves. This time she suggested a short statement signed by the members. Twenty-two members signed it,

Battelle lends Children's Center big hand



Herald/Paul T. Erickson

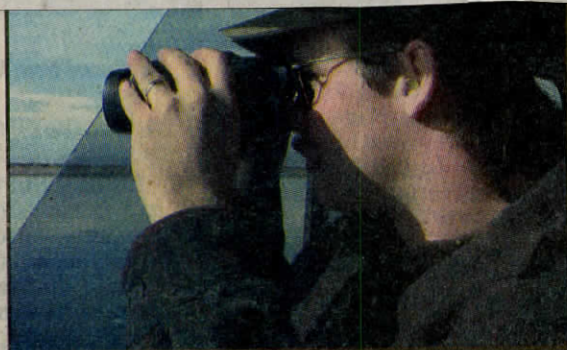
Jamaica, left, and her cousin, Naquel, both 4, show Bill Madia, director of Battelle-Northwest, how to make paper garbage cans Friday at the Benton-Franklin Head Start Center in Richland. Madia was on hand to present a donation check of \$100,000 toward the construction of the new Children's Center. Head Start requested the children's last names not be published. **Story, Page A3.**

ke eagles



Herald photos/Cary Best

Above: Three bald eagles perch in a tree near the bank of the Columbia River in the Hanford Reach. These three raptors were among the 20 Brett Tiller, a Battelle ecologist, counted on his last survey of the Reach. **Top right:** Tiller uses a pair of binoculars to study nesting eagles from his boat on the Columbia River in the Hanford Reach.



Experts hope mating pair will stay for summer

By Mike Lee
Herald staff writer

As the 24-foot aluminum boat churns through the placid waters of the Hanford Reach, Brett Tiller scans isolated nests in bare trees at the Columbia River's edge.

After six years of plowing up and down the Columbia, Tiller can spot and name most any bird from miles away. By wing rhythm. By shape. By memory.

Without looking down, he fingers a pair of black binoculars that rest like small cannons at his feet. They are almost too heavy to hold steady with one hand.

Geese and coots scatter before the boat. Pelicans — their black underwings beating the air — also heed the rumble of the lone boat.

Tiller pays attention to little except a bald eagle perched on a cottonwood and a nest not far from the river. He pulls back the cabin window and exchanges the high-powered glasses for a laser range-finder.

"One at 142 meters," Tiller tells Larry Cadwell in the copilot seat. Cadwell, senior research scientist and Tiller's supervisor at Battelle, marks another eagle on his hand-drawn map of the river.

Wary but dignified, the bald eagle scans the river without ruffling the feathers on its 3-foot-long wings.

Tiller's job is to count eagles — and every other bird — so he can track the migrating population from one year to the next. Every two weeks, he floats the Reach in search of birds.

As winter turns to spring, most of the 37 bald eagles that took refuge in the area have left. This year, however, there are high hopes that at least one mating pair will stay through the summer to nurture eaglets until they can fly on their own.

Though the Hanford Reach is the premier bald eagle wintering site in Eastern Washington, no one has ever documented eaglets being hatched along the 51-mile stretch of river.

One eagle couple on the Hanford side of the river has been perfecting a nest for three years, but they have yet to produce offspring. Tiller estimates the

“
It looks good. The most promising thing of all is that we have so many nesting attempts.”

Brett Tiller, scientist

”

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Hanford

BUDGET

Budget Workshop February 26, 1998

The U.S. Department of Energy invites you to participate in the development of Hanford's fiscal year 2000 budget for cleanup. A half-day workshop will be held February 26, 1998 from 12:30 p.m. to 5:00 p.m. at the Double Tree/Hanford House, 802 George Washington Way, Richland, WA.

An informal brown-bag session on Hanford's indirect budget will be from 11:30 am to 12:15 pm.

Participants will include the public, state and federal regulators. The workshop will include presentations from DOE managers on the processes and priorities in developing the budget. Break-out sessions for small group dialogue will be provided for each major Hanford project.

There also will be additional opportunities for public participation in a series of shorter public meetings on Hanford's cleanup projects.

**All Comments Will Be Considered.
Public Meetings Are Scheduled For:**

Portland: March 9 \$\$ Seattle: March 10 \$\$ Richland: March 12

For more information contact: **Gail McClure**
DOE-Richland Operations Office
(509) 376-7501

Energy department plans budget hearing

The Department of Energy is asking for public input on the fiscal year 2000 budget it's currently developing.

The first meeting is from 11:30 a.m. to 4:30 p.m. Thursday at the Richland Doubletree hotel. It starts with presentation at a brown-bag lunch followed by a budget overview at 12:30.

Hanford officials help launch science lab near Chernobyl

By Wanda Briggs
Special to the Herald

SLAVUTYCH, Russia — World leaders gathered here Wednesday in the shadow of Chernobyl to open a science and research center patterned after the Pacific Northwest National Laboratory in Richland.

Visitors to this city, which rose from the ashes of the world's worst nuclear accident, included ambassadors to Ukraine from France, Germany, Great Britain and the United States, representatives of countries in the G-7 Economic Group, which has pledged support to Ukraine, and a host of U.S. business executives.

Hanford officials played a prominent role in the event. Representatives included Terry Lash, director of the Department of Energy's office of nuclear energy science and technology — which oversees work at Hanford.

Included in the Tri-City delegation were PNNL director Bill Madia, Hanford manager John Wagoner, and Bill Lampson, president of the Neil F. Lampson Co., the world's largest crane manufacturer.

The United States has spent from \$60 million to \$100 million a year since 1995 to reduce risks at Chernobyl and to increase economic stability in this part of the former Soviet Union.

A key goal of the plan is to shut down Chernobyl's nuclear plant by 2000. The reactor includes a design flaw that world leaders fear could result in a repeat of the April 1986 meltdown of Chernobyl Plant No. 4.

The region's economy got a shot in the arm Wednesday with dedication of the Chernobyl Center for Nuclear Safety, Radioactive Waste and Radioecology and the Slavutych Laboratory, in which the United States already has invested \$1 million.

The center was billed by Madia as the foundation for the future of this town and its 27,000 residents. Lash described it as a tool to bring Ukraine's nuclear power programs up to international standards.

"Creating a major new institution is never an easy task," Lash said. "But in less than three years, in a location that faces many serious challenges, the Ukrainian government and nuclear industry, with international cooperation, has achieved a major success."

Madia echoed Lash, saying the Chernobyl Center "holds great promise for enhancing local economic development, building Ukrainian scientific capability, and reaching out to the international community in collaborative projects."

Madia announced the creation of the National Laboratory Network, which will help the Chernobyl Center share information, ideas and activities with U.S. labs.

"We envision this new National Lab Network will provide many more avenues for the center to explore as it seeks new international projects," he said.

The involvement of the United States, under the umbrella of DOE and PNNL, was praised by Yuri Kostenko, Ukraine's minister for environmental protection, and Steve Pifer, U.S. ambassador to Ukraine.

"The United States was the first government to sign the agreement and the first to implement ideas which were discussed," Kostenko said.

"And thanks to the United States, we are now being supported by other countries ... to prevent another tragedy like the one we have experienced."

This nation's nuclear nightmare occurred nearly a dozen years ago when Plant 4 at the V.I. Lenin Atomic Power Station blew up, killing 31 people and spreading radioactive dust, gases and debris across the globe. Some 185 million curies of radioactive materials were released into the atmosphere, water and land — nearly 200 times

the release from the atomic bombs at Hiroshima and Nagasaki combined.

The Chernobyl explosion contaminated 60,000 square miles of Ukraine, Belarus and Russia, and forced the permanent evacuation of about 130,000 people from their homes and farmlands.

After the dedication ceremony, Lash and Madia were part of a roundtable discussion focusing on the need for international collaboration.

Today, Wagoner, Lampson and Laurin Dodd, who directs the International Nuclear Safety Program for the United States, will join others on tour of Chernobyl.

Battelle's involvement in cleaning up Chernobyl doesn't end with the center's opening.

The Richland research firm has joined Bechtel Hanford and Electricite de France to bid on a project to prevent the collapse of a 20-story steel and concrete shelter — called the sarcophagus — covering the reactor's remains. Total project costs are estimated at \$760 million, with half of that amount pledged by G-7 countries.

Intense radiation and heat made it impossible to build a stable, leak-tight structure over the nearly 120 tons of radioactive fuel that remain in the reactor. As a result, the sarcophagus is filled with cracks and holes that allow birds and rain to enter. The birds spread contamination and water increases the risk of an uncontrolled nuclear chain reaction.

DOE budget for Hanford cleanup falls short in 2000, officials say

By Wendy Culverwell
Herald staff writer

The Department of Energy's proposed budget for Hanford cleanup in fiscal 2000 falls \$80 million short of the amount Richland DOE officials say they need to meet deadlines spelled out in the 1989 Tri-Party Agreement.

The department reviewed its draft \$1.588 billion budget in a public session Thursday at Richland's Doubletree Hotel. The budget is 10 percent larger than the fiscal 1999 spending plan, but the "compliance gap" continues to grow. DOE officials say the current budget comes up \$42 million short and 1999 will be \$76 million short. In all, the gap will approach \$200 million in three years.

Washington Gov. Gary Locke warned Energy Secretary Federico Peña on Monday that the state is prepared to sue if the department misses any more deadlines spelled out in the Tri-Party Agreement, the cleanup pact signed by the state, DOE and the Environmental Protection Agency. The agreement requires DOE to meet specific deadlines for cleanup activities.

"We are in trouble. We've missed milestones," said Lloyd Piper, deputy manager of DOE's Richland office. He presided over Thursday's session in place of director John Wagoner, who is in the Ukraine visiting Chernobyl.

Federal budget officials in Washington, D.C., set the 2000 budget target at \$1.588 billion. Piper said the Richland office will ask for more so they can comply with the Tri-Party Agreement.

"The Richland office will request whatever it takes to be in compliance," he said.

Michael Grainey, assistant director of the Oregon Office of Energy, said he's reassured that DOE in Richland will seek full funding but cautioned it not to set its expectations too low.

"If we plan for less, I think we're going to get less," he said. Most of the participants who crowded the Doubletree ballroom for the session work at or are connected to Hanford.

Pam Brown, the city of Richland's Hanford analyst, praised the public process but said the funding shortfall is cause for concern, especially if it means key cleanup work will be delayed.

"Who we need to focus on is the (Office of Management and Budget) and the (Clinton) administration," she said.

Mike Wilson, manager for the Washington Department of

Ecology's nuclear waste program, echoed Locke's resolve regarding deadlines. The state of Washington doesn't consider budget constraints sufficient reason to miss deadlines, he said.

He also said the budget overlooks the escalating cost of dealing with single-shell tanks storing radioactive wastes and the spent fuel in the K Basins.

"In the area of spent fuel, this could be a potential budget buster in 2000," he predicted.

DOE plans to conduct a second budget meeting in the Tri-Cities at 7 p.m. March 12 at the Richland Doubletree. Public comment will be accepted through March 30. The budget goes to Washington in April and to Congress next February.

Send written comments to: Alice Q. Murphy, Chief Financial Officer, U.S. Department of Energy, 825 Jadwin Ave., M.S.: A7-29, Richland, WA 99352.

An overview is available on the Net at <http://www.hanford.gov/doe/022598/022598.htm>

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Government may take over health services at Hanford

By Annette Cary
Herald staff writer

The Department of Energy is considering whether a government agency, the U.S. Public Health Service, should take over occupational health and medical services at Hanford.

Those services have been provided since 1965 by the Hanford Environmental Health Foundation, a private, nonprofit organization. Its current contract expires Sept. 30.

DOE's Richland Operations Office has delayed issuing a request for proposals for occupational medicine services while it considers the possibility of using the Public Health Service's Federal Occupational Health Division. The request for proposals originally was scheduled to be issued Feb. 10.

Now, DOE is looking at releasing the request for proposals in March — unless it decides to rely on the Public Health Service. It is evaluating the government agency's recent proposal to see how it would affect cost, continuity and quality of service.

The Federal Occupational Health Division provides occupational health services for several federal agencies, including the Nuclear Regulatory Commission, the Environmental Protection Agency, the Occupational Safety and Health Administration and the Bonneville Power Administration. It operates 200 clinics nationwide and provides assistance programs for 1.3 million federal employees.

If DOE does decide to put out a request for proposals, HEHF may not respond.

"We have to see what is in" the request, said Sandra Matheson, HEHF president. "I don't think it's a given HEHF is interested."

METRO

Bechtel gets notice on 3 violations

By John Stang
Herald staff writer

Bechtel Hanford Inc. received a violation notice last week for some glitches at a central Hanford landfill and on labeling some barrels.

The state ecology and health departments joined the U.S. Environmental Protection Agency to issue the notice of violation to Bechtel last week.

The ecology department does not intend to fine Bechtel, said department spokesman Michael Turner. The appropriate EPA and state health department officials could not be reached Monday.

Bechtel has 30 days to tell the agencies how it will fix the problems.

Fix-it measures are under way, said Mike Hughes, Bechtel's

vice president for operations.

The three agencies' notice of violation focused on three items:

■ A leak in a liner in an above-ground temporary storage tank at the Environmental Restoration Disposal Facility — or ERDF — which is a huge landfill in central Hanford for radioactive rubble and soil.

Bechtel collects water that seeps through the ERDF's soil and pumps it out into two of these tanks. That water eventually goes to a purification facility.

The tanks have double liners in them, and a leak appeared in the inner liner of one tank. About three gallons leaked daily through that inner liner for about 1½ months but was stopped by the outer liner, Hughes said.

None of the water leaked out of the tank, Hughes said.

Bechtel knew of the leak and lowered the tank's water level to stop the it. But the EPA wanted the tank drained dry and taken out of use until the leak was fixed.

Bechtel has since fixed the inner liner.

Because the water had seeped through contaminated soil, the EPA lists the fluid as hazardous. However, Hughes said the water is close to drinking standards, and Bechtel wants to talk to the EPA about classifying the liquid as non-hazardous.

■ Bechtel using 50,000 square feet of open dumping space in the ERDF instead of the state health department's limit of 6,600 square feet. The issue addresses the possibility of contaminated dust particles being stirred up and drifting through the air.

Bechtel believes 6,600 square feet

is too small to handle the amounts of soil and rubble being brought daily to the ERDF. Air monitors show the ERDF's current dust control measures are meeting air quality requirements, Hughes said.

■ Five to seven 55-gallon barrels of miscellaneous debris were not properly labeled.

The drums contained resins, filters and other solid debris from a 200 Area ground water pump-and-treat operation where the main contaminants are carbon tetrachloride, uranium and technetium.

The number of drums in that area was about 200. Hughes said Bechtel agrees the violations occurred and have since been fixed.

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

Battelle, partners eye 3 new ag-based firms

By Annette Cary
Herald staff writer

Three new processing plants could open in Pasco within a year or two, initially providing as many as 140 jobs and more opportunities for farmers.

The Agri-Business Commercialization and Development Center is working to start the plants, two of which could be open in a year.

They include a canola oil processor, a food irradiation plant and a strawboard manufacturer, said David Eakin, director of the ABCD center, speaking at a Greater Pasco Area Chamber of Commerce lunch Monday.

The center is a Battelle project, in conjunction with four partners, to help start new agriculturally based businesses in the Mid-Columbia.

Here's what is in store:

■ Eakin said he expects Northwest Strawboard to be operating a \$10.5 million plant in a Big Pasco warehouse a year from now. It would employ 35 people initially and later would be expanded to employ 40.

The company would turn straw into industrial-grade particle board. Finely chopped straw would be mixed with a small amount of binding material and then pressed into 4-foot by 8-foot sheets. The sheets would range from an 1/8- to 3/4-inch thick.

The sheets would be sanded and shipped to manufacturers to be fashioned into kitchen and bathroom cabinets, countertops and furniture such as desks and bookcases. The particle board would be covered with an oak or plastic laminate in the finished product.

The plant is not associated with one planned in Moses Lake to make strawboard for prefabricated walls and studs.

■ The second project, New Horizon Technology's irradiation plant, has started irradiating small quantities of food at Hanford but is looking at building a full-size commercial facility in the Pasco area. It could be operating by the end of the year.

The design is not final, but the capital investment is estimated at \$2 million to \$5 million. It would initially employ 15 to 20 people — not taking into account warehouses

and other businesses it could attract to the area. For instance, it could be used for sterilizing medical supplies, attracting a medical company.

It could also expand demand for crops grown in the Mid-Columbia, he said.

Now fresh asparagus lasts only a week to 10 days, but irradiation could increase its shelf life to up to three weeks and make distribution farther away practical, Eakin said. Irradiation can also extend the life of Walla Walla sweet onions from a month to four months.

An irradiation plant in the Tri-Cities also would make exporting apples and cherries easier. Now they must be treated for insects before they are sent to some countries. Cherries, for example, are treated with the chemical fumigant methyl bromide before they are sent to Japan.

With talk of banning the fumigant, irradiation gives exporters another way to guarantee fruit is free of insects, Eakin said.

■ More information about the third project, a canola processor, should be made public in a

month or two, Eakin said. Canola can be grown by farmers without irrigation as a rotation crop with wheat and barley.

The demand for canola oil is growing faster than demand for other oils, because of its lower level of saturated fat. However, the proposed plant could also be used for processing other seed plants, including safflowers, sunflowers and soy beans.

Now, canola grown in the Mid-Columbia is exported or shipped out of the area to be processed. The closest plant making canola oil is in eastern Montana, Eakin said.

A \$20 million plant is proposed that would employ 90 people. The ABCD center is working with a private company that is putting together financing for the project, Eakin said. Battelle's partners in the ABCD center are Washington State University at Tri-Cities, the Port of Benton, the Department of Energy and Tri-City Industrial Development Council.

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Peña close to naming privatization, cleanup czars

By John Stang
Herald staff writer

Energy Secretary Federico Peña is close to appointing a cleanup czar and a privatization czar, according to U.S. Rep. Doc Hastings.

Hastings, R-Wash., met with Peña on Thursday to discuss Hanford issues.

Peña told Hastings he has someone in mind to replace Al Alm, the former assistant secretary for environmental management who resigned a few weeks ago. The position oversees all the Department of Energy's cleanup programs, including Hanford's. James Owendoff has been filling the slot on a temporary basis.

Peña did not tell Hastings who he had in mind for the permanent cleanup czar.

Meanwhile, Peña also told Hastings he plans to soon name a person to take charge of all of DOE's programs to have private business take over functions formerly done by DOE contractors. He did not specify who, however.

Hastings has pushed for the creation of a post to supervise DOE's growing ventures into privatization — including the proposed venture to have private industry convert Hanford's radioactive tank wastes into glass.

Hastings believes DOE officials in charge of the Hanford tank waste privatization should report directly to the future privatization czar, while still consulting with DOE's Hanford management.

Peña has taken no position on that suggestion.

Proposal brightens future for Hanford cleanup funding

By John Stang
Herald staff writer

Hanford will compete with fewer Department of Energy sites for cleanup dollars after 2006.

In a long-expected draft proposal unveiled Monday, Hanford's long-range cleanup plans are being meshed with long-term plans at other DOE sites.

This is the latest step in former DOE cleanup czar Al Alm's proposal to obtain steady funding from Congress to speed cleanup at numerous DOE sites by 2006 — freeing money then for the few remaining sites, including Hanford.

The other benefit would be drastically cut long-term maintenance costs over several decades.

However, questions remain on whether the money will be available to put this proposed coordinated master "strategy" into effect.

James Owendoff, DOE's acting cleanup czar replacing the recently resigned Alm, characterized the draft plan as a "strategy."

That is because the plan does not formally make any budget decisions, and it does not formally order any environmental studies or decision, Owendoff said.

Those decisions will be tackled

by DOE field offices, such as Hanford's, he said.

A 60-day comment period has begun on the draft proposal. A final plan is expected to be ready sometime this summer, Owendoff said.

What the proposal means is that DOE's numerous cleanup sites will know each other's long-term plans, improving every site's ability to make intelligent long-range cleanup decisions, said Gene Higgins, DOE's director for planning integration at Hanford.

The idea behind the proposal is that cleanup will be complete at 103 of DOE's 113 sites by 2006. Most of the finished sites will be small ones, with the biggest sites, such as Hanford, left after 2006.

A major unresolved issue is defining what is "clean," DOE officials said.

Each site could have a different standard of what is "cleaned up," which could complicate the nationwide planning, they said.

Also, maintenance costs likely will remain at most, if not all, of the "cleaned up" sites after 2006.

The proposed master plan calls for DOE to convince Congress to appropriate \$5.75 billion a year for nationwide cleanup, which translates to close to \$1 billion annually for Han-

ford's cleanup. That roughly \$1 billion does not count money being set aside for a privatized long-range tank-waste glassification program.

DOE officials in Washington, D.C., and Hanford said the agency's top priorities are safety and meeting the legal cleanup obligations.

Speeding up cleanup comes after those two priorities.

The problem is that the \$5.75 billion annual cleanup budget scenario falls short of meeting DOE's nationwide cleanup obligations, said DOE's Hanford officials.

An extra \$3.5 billion must be found between 1999 and 2006 and spread among those years to meet all of DOE's legal cleanup obligations nationwide, said Jim Daily, DOE's Hanford team leader for the accelerated cleanup strategy.

Meanwhile, Hanford already lack funds needed to meet its legal cleanup obligations.

DOE figures show Hanford is \$42 million short of what is needed to meet its cleanup obligations in fiscal 1998. Most of the shortfall is expected to remain through the year and to carry over into fiscal 1999, said Alice Murphy, DOE's chief financial officer for Hanford.

If so, DOE expects a \$76 million shortfall on meeting its legal cleanup

obligations at Hanford in fiscal 1999.

The 2006 plan emphasizes improving efficiency and saving money in order to transfer those savings to where more money is needed in cleanup.

Although the budget projections currently fall short, the overall DOE master plan calls for all legal cleanup obligations to be met.

At Hanford, that would mean the spent nuclear fuel would be moved from the leak-prone K Basins near the Columbia River to a safer site in central Hanford.

At the tank farms, that would mean all 177 tanks would be analyzed, all the liquid wastes would be pumped from the 149 single-shell tanks into the 28 safer double-shell tanks, and all the major safety problems addressed. Also, glassification of the wastes would have begun.

Copies of the Hanford segment of the proposal are available at the DOE Reading Room at Washington State University at Tri-Cities.

Hanford-related comments can be sent to Jim Daily, Department of Energy, A5-58, P.O. Box 550, Richland, Wash., 99352-0550.

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

Hanford budget focus of TV show, meetings

An hourlong television program on Hanford's preparations for its fiscal 2000 budget will be aired at 9 a.m. and 8 p.m. Thursday and Saturday on TCI Cable Channel 3.

This is part of a public outreach effort by the Department of Energy, a coalition of Mid-Columbia local governments, the Washington Department of Ecology, and the U.S. Environmental Protection Agency.

Public comments on the budget will be sought at meetings March 9 in Portland, March 10 in Seattle and March 12 at the Doubletree Inn in Richland. All meetings begin at 7 p.m.

Richland meeting about Hanford's future

A public meeting on historical, cultural and future use issues on Hanford's B Reactor and 300 Area and 1100 Area buildings is scheduled for 6 p.m. today in Richland.

The Department of Energy is inviting the public to the meeting in the Columbia Room of the Environmental Technology Building at 3200 Q Ave. in the Pacific Northwest National Laboratory complex.

The discussion topics will range from historical matters to possible economic development uses for some buildings.

(See over)

Hanford board predicts cleanup money shortage

By John Stang
Herald staff writer

The Department of Energy's long-term plan of providing steady funding for Hanford's cleanup will fall short, an advisory committee contends.

DOE has begun planning what it can tackle financially at Hanford in the fiscal year 2000 — and is viewing those plans in context with its long-range financial planning.

The Hanford Advisory Board's financial affairs committee plus federal and Yakama Indian Nation representatives Friday looked at how those figures will likely unfold.

They said the present financial predictions won't provide enough money for DOE to meet several legal deadlines on cleaning up Hanford under the Tri-Party Agreement between DOE and its regulators.

"Level funding is not going to cut it. Work scope has been added," said Dennis Faulk, a local EPA official.

DOE scheduled meetings Monday in Portland, Tuesday in Seattle and at 7 p.m. Thursday at the Richland Doubletree Hotel to find out the public's funding priorities for Hanford in 2000.

So far, DOE's headquarters in Washington, D.C., has not given its Richland office a target to work with.

For now, DOE's Richland office is assuming the fiscal 2000 cleanup budget will be the same as the proposed fiscal 1999 cleanup budget of \$1.114 billion.

Hanford officials and other Hanford interests are looking at that figure, trying to determine which legal obligations can't be met without more money.

The level funding scenario is complicated by new cleanup expenses popping up at Hanford that aren't covered in the cleanup pact.

Faulk cited massive budget increases in removing spent nuclear fuel from the K Basins.

And he pointed to safety questions being studied on a possibly

leaking underground tank at the Plutonium Finishing Plant that contains sludge laced with plutonium. Dealing with that previously unplanned matter will likely be expensive, Faulk said.

And the planned demolition and sealing-off projects at F Reactor and DR Reactor will be underfunded in 1999 and 2000 under the present budget scenarios, Faulk said. That means those projects would need extra cash in 2001 to meet their Tri-Party Agreement deadlines.

Such a budget fluctuation could translate to a roller coaster of layoffs and rehiring at those projects, Faulk speculated.

Advisory board members said funding for several Hanford non-cleanup projects — not covered by Tri-Party Agreement deadlines — should be kept out of the cleanup budget.

Committee members said this would help Hanford meet its legal obligations for cleanup. Budget shortfalls for cleanup currently are predicted at \$42 million in 1998, \$76 million in 1999, and possibly slightly higher in 2000.

Work to keep the Fast Flux Test Facility on standby, safeguarding stored plutonium, and the cost of fighting downwinder lawsuits are among Hanford expenses that shouldn't come out cleanup money, committee members said.

Committee members — representing a spectrum from Tri-City interests to environmentalists — said DOE's Richland office always asks its Washington, D.C., headquarters for all the money needed to meet its legal obligations. But DOE's headquarters and Congress always trims those requests.

Meanwhile, DOE is mapping out a coordinated long-range plan on cleanup for all its sites through 2006. But that master plan falls \$3.5 billion short of DOE's nationwide legal cleanup obligations from 1999 through 2006.

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

Transfer of Hanford's 1100 Area to Port of Benton could happen soon

By John Stang
Herald staff writer

The proposed transfer of Hanford's 1100 Area to the Port of Benton could take place by this summer.

"The sooner we can get it to the Port of Benton, the sooner the Port of Benton can begin developing it. ... It gives (the port) a lot more leverage when people know who the future owner is," said Bill Rutherford, the Department of Energy's infrastructure division director at Hanford.

Hanford no longer needs the area, which has already been cleaned up, he said.

DOE spokesman Keith Taylor said: "This will reduce our costs and improve efficiency. ... We're trying to see if we can use our excess resources for economic (development)."

Hanford plans to shift most of the 1100 Area's equipment and people mostly to central Hanford as part of an effort to consolidate functions and get rid of excess equipment.

"It's a major commitment for the port. It will literally remake the Port of Benton" said Ben Bennett, the port's director.

The port had been studying a proposed commercial project for the 1100 Area before deciding assuming ownership of the entire area would be a good idea to attract additional companies and to spread out any investment risks, Bennett said.

"We've been marketing (the 1100 Area) pretty heavily," he said.

The port has some nibbles for the 1100 Area, with at least one company expected to soon publicly announced its interest, he said.

The 1100 Area is a 720-acre finger of Hanford extending south into Richland.

It extends from Horn Rapids Road south to

near Spengler Road. Stevens Drive is the area's eastern boundary.

The 1100 Area contains two major buildings and some auxiliary buildings.

One major building contains heavy equipment, a vehicle shop and a railroad maintenance shop.

Part of that building is being vacated for one or more prospective tenants being eyed by the port. Rutherford expects most of the Hanford equipment to be gone in a few months.

The second major structure is a combination of a warehouse and office building.

Part of DynCorp Tri-Cities Services — a major Hanford subcontractor

that handles most of the site support functions such as fire protection, transportation and building maintenance — occupies the offices.

“
This (transfer) will reduce our costs and improve efficiency. ... We're trying to see if we can use our excess resources for economic (development).
”

Keith Taylor,
DOE spokesman

Rutherford speculated the warehouse should be emptied in the near future.

But he expected DynCorp to stay in the offices.

Overall, 200 to 300 people work in the 1100 Area.

The port and DOE are discussing how to accomplish the transfer, which could take place in three to four months, Bennett and Rutherford said.

Most of the details still have to be hashed out, such as possible rental charges after the port takes over.

"Our intent is to make the transfer seamless," Rutherford said.

The proposal resembles DOE's transfer of the 3000 Area to the port in 1996.

The 3000 Area is a 71-acre site south of the Battelle-Northwest complex.

Since 1996, the 3000 Area has attracted about a dozen tiny light manufacturing firms.

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

Fluor awaiting word on 1997 performance fee

By John Stang
Herald staff writer

It will be several weeks before Fluor Daniel Hanford's performance fee for fiscal year 1997 will be determined.

At stake is up to \$54 million.

Fiscal 1997, which ended Sept. 30, was the first time 100 percent of the award fee from the Department of Energy for Hanford's lead contractor was based on objective graded criteria.

But the criteria and grading system are complicated, leading to months of delays in calculating Fluor's performance fee for its first year of running Hanford.

In fiscal 1997, Fluor had to successfully finish 246 graded tasks to

earn a perfect grade and a \$54 million fee.

So far, DOE has given Fluor credit for 169 tasks, failed it on 20 tasks, and still is reviewing 57 tasks, said Sally Sieracki, the DOE official in charge of the grading.

She briefed the Hanford Advisory Board's financial affairs committee Friday in Richland.

Fluor already has been paid 60 percent — \$32.4 million — of the total possible \$54 million in fiscal 1997, as called for in its contract.

The grading process will see if Fluor is eligible to receive any money beyond that 60 percent. If it is eligible for less than 60 percent, Fluor must repay the extra money with interest.

Sieracki said the grading has gone slowly because:

■ The system is new.

■ Most of the graded tasks were to be completed on Sept. 30, 1997, which meant a huge amount of paperwork for Fluor to process in the subsequent months and a subsequent huge wave of paperwork later descending on DOE.

Lessons learned in fiscal 1997 have led to some changes on how

fiscal 1998's performance fee of up to \$50 million will be handled, Sieracki said.

One change is the deadlines for the tasks will be spread throughout fiscal 1998 instead of lumped together in September 1998. Also, the number of graded tasks was reduced to 102 in fiscal 1998.

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

INSIDE

Chemical disposal: Work under way to build Umatilla depot incinerator. **Page D2.**

Global warming: PNNL studies climate. **Page D6.**

Adjustments: New contract brings change to Hanford. **Page D11.**

Tri-City Herald

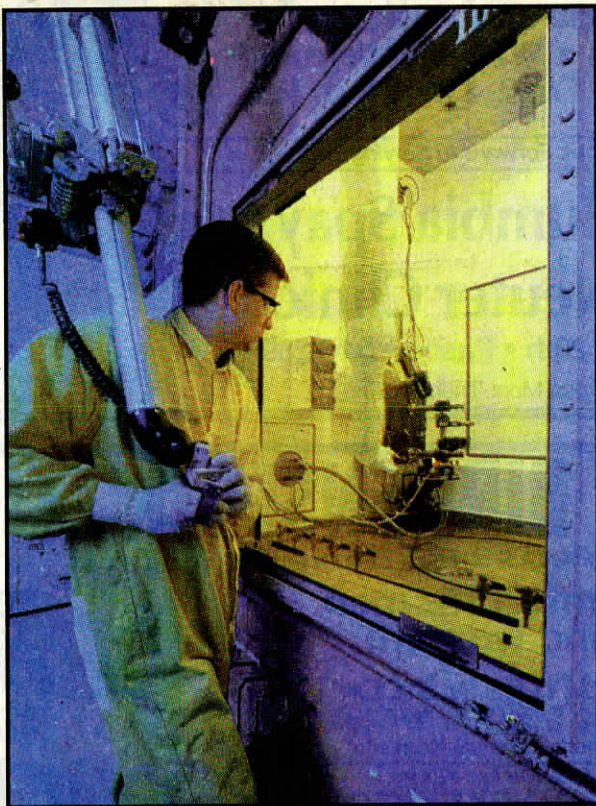


Photo courtesy Department of Energy

A worker uses a laser spectrometer at Hanford's 222-S laboratory as part of the Department of Energy's work at Hanford. **Page D14.**

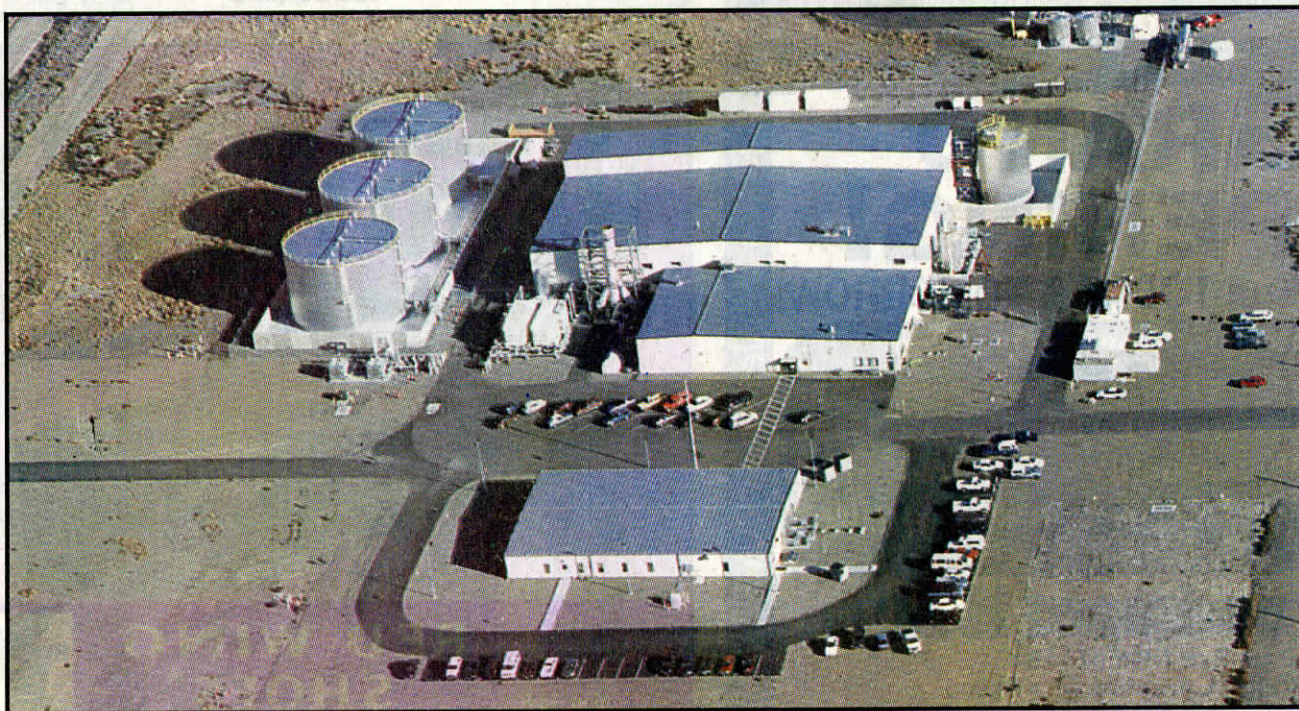


Photo courtesy Waste Management Federal Services Hanford

Hanford's state-of-the-art Liquid Waste Treatment Facility provides effluent treatment for the 200 Area. **Page D12.**



Photo courtesy Pacific Northwest National Laboratory

The topographical mapping system developed at Pacific Northwest National Laboratory maps the surface features of stored wastes and the interior structures of waste tanks to help develop strategies for continued safe storage of the materials. **Page D3.**



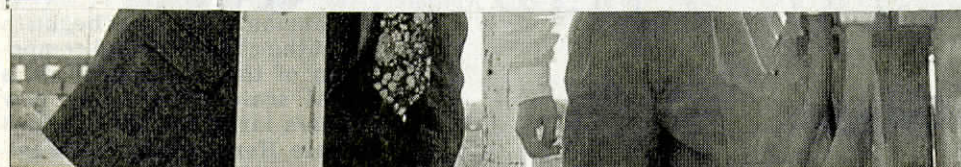
Mike Caldwell, Bechtel's craft supervisor, left, and Delmar Gregory, a decontamination and decommissioning employee, discuss the demolition activities at Hanford's C Reactor. Major portions of the reactor and its support buildings have disappeared because of the work Caldwell, Gregory and the rest of their team have performed. C Reactor will be the first in the DOE complex to undergo a safe storage process that will create a significantly smaller, safer facility, protecting the environment from the reactor's core for up to

75 years. Work at C Reactor will be completed by September, reducing the original size of the reactor by more than 80 percent. C Reactor also is providing a stage for showcasing innovative technologies. At least 20 technologies and approaches will be field-tested to demonstrate safer, less expensive and more efficient ways of decommissioning aging nuclear facilities. So far, eight of these technologies were found to be more efficient than those previously used and are now in use on site.



Kevin Bergstrom, an environmental restoration team scientist and Kennewick resident, guides a ground-penetrating radar instrument across the surface of a burial ground in Hanford's 300 Area. The instrument sends radar pulses into the ground to determine what objects might be buried below the surface. Understanding the location and types of contaminants is critical to the success of the project's remedial action and waste disposal team. In fiscal year 1997, the remedial action team safely removed and transported nearly 500,000 tons of contaminated waste materials from three sites bordering the Columbia River.

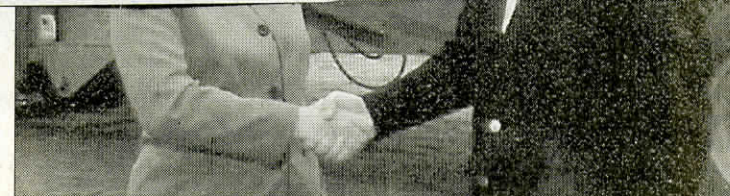
During the removal and disposal of this waste, the team has achieved impressive operational efficiencies. The costs for excavation, transport and disposal of waste are among the lowest in the DOE complex. The team also works safely — in January, the team passed the 1-million-hour mark without a lost time injury.



Mike Thompson of the Department of Energy, left, and George Henckel of Bechtel inspect an extraction wellhead configuration at a ground-water cleanup site near the Columbia River. Thompson and Henckel manage the Environmental Restoration Project's efforts that are responsible for controlling and treating contaminated ground-water plumes. In fiscal year 1997, five pump and treat stations processed more than 120 million gallons of contaminated ground water. By consolidating engineering, construction and technical documents, the team brought the last two of these stations on line ahead of schedule and saved \$1.6 million.

As a result of this work, Hanford's landscape is changing. Gone are buildings and structures that were once prominent features of the site. Also gone are more than 700,000 tons of contaminated materials from three sites bordering the Columbia River, waste that has been transported and safely disposed of in a specially designed facility far away from the river on Hanford's central plateau, high above the ground water.

Contaminants such as chromium and carbon tetrachloride are being removed



because of five ground-water pump and treat sites that Hanford's regulators and stakeholders helped identify as necessary to contain contaminated ground-water plumes.

Drivers or boaters near the Vernita Bridge on Highway 240 will notice a big change to the

eastern skyline, once dominated by the C Reactor complex, which is being reduced to a small, isolated building.

Performing this work safely takes planning and preparation. It also requires a dedicated team of people — your friends and neighbors.

mental restoration for the Department of Energy, Richland. Liedle is president of Bechtel Hanford Inc.

Photos courtesy Bechtel Hanford Inc.

Words can describe their work, but actions speak louder than words. These pictures represent the actions of the Environmental Restoration Project employees and provide a better understanding of the progress made by the project — progress as promised.

Difficulties of past year hold lessons for cleanup

The Hanford community faces one of the most challenging environmental cleanup tasks in the nation. It is difficult, complex work that never has been attempted anywhere else in the world.

The Hanford complex has learned lessons from a number of experiences over the last year, including the Plutonium Finishing Plant explosion, increased knowledge about contamination in the soil under and around the high-level waste tanks, and changes in the schedule for removing spent fuel from the K Basins.

We will continue to be aggressive in safety and environmental challenges. The fact remains, however, that Hanford's aging infrastructure of facilities and waste storage systems will continue to present hazards — some of which are difficult or impossible to anticipate.

These decades-old buildings and waste sites, with their inventory of decaying material, are potent reminders of why the Department of Energy must move quickly to complete the job of deactivation and cleanup.

I've had the opportunity to see many of these sites and buildings, and I am personally committed to meeting these challenges.

Our priority now and in the future is to pursue our cleanup safely and protect the water resources of the Northwest. The first part of that job is preventing any further ground-water contamination, and that's why we are focusing on pumping the tanks and removing the spent fuel from the K Basins.

For the longer term, we need to develop a better understanding of



Federico Peña

Federico Peña was appointed secretary of the Department of Energy by President Clinton in December 1996. He is a former secretary of the Department of Transportation and former mayor of Denver.

Key achievements include an improved safety record, significant progress in building a new facility for safe interim storage of spent nuclear fuel, cleanup and deactivation of the Plutonium Uranium Extraction Facility, and the start of operations at the Department of Energy's \$230 million Environmental Molecular Sciences Laboratory.

But more needs to be done. This year, we will work to reach final closure of the B Plant, to decontaminate and deactivate the N

the vadose zone and ground-water monitoring and contamination issues.

I've asked Undersecretary Ernest Moniz to develop a new integrated plan to address these issues with the help of independent experts, community representatives, tribal nations and the Hanford Advisory Board.

I am pleased with some of the steps we have taken during the past year of cleanup at Hanford to begin to address the concerns in the community and our responsibility to clean up the site.

Reactor, to complete the C Reactor Interim Safe Storage project and to move ahead on our plan to begin the treatment of Hanford's tank waste.

The Tri-Cities deserve much more than just Hanford cleanup. During my visit in August, I had the opportunity to talk with some of the deeply committed and caring citizens who want to rebuild and revitalize the community for the future. We want to be part of that effort. The new contract with Fluor Daniel committed Fluor Daniel to help create a total of 3,000 new jobs over five years. A \$10 million venture capital fund also was established for investment in local firms.

The Department of Energy also played an instrumental role in opening the Consolidated Information Center at Washington State University at Tri-Cities and the Workforce Training Center at Columbia Basin College.

Most importantly, I want the Department of Energy to be a good neighbor and corporate citizen by maintaining a frank and open dialogue with the community and by managing our contracts to ensure successful and efficient cleanup results — and our No. 1 priority will always be worker and public safety.

Hanford's important work is being carried out by many talented and dedicated people who are moving us steadily down the path to completion. They have my confidence and respect. With a job as large and diverse as Hanford cleanup, the successes aren't always headline news. But they are happening every day at Hanford. And that's something in which we all can be proud.

PNNL's research efforts growing far beyond Hanford boundaries

When the Pacific Northwest Laboratory added the word national to its name two years ago, we wanted to



Bill Madia

Bill Madia is director of the Pacific Northwest National Laboratory and senior vice president of Battelle Memorial Institute.



Bob Rosselli

Bob Rosselli is assistant manager for science and technology management for the Department of Energy in Richland.

Laboratory, launching a new era of collaborative scientific research.

We've expanded our R&D busi-

ness by tackling problems that range from building a more energy-efficient car to helping solve the air pollution problems in Mexico City.

We've continued to strengthen our position in the community through our efforts to revitalize the local and regional economy. Last, but not least, we looked within our own laboratory walls for ways to streamline the costs and improve our operational performance, especially in the areas of environment, safety and health.

Launching PNNL's newest facility

The doors finally are open at the long-awaited William R. Wiley Environmental Molecular Sciences Laboratory, the newest and most dynamic user facility in the DOE system.

As a national scientific user facility, EMSL will play host to researchers from all over the world who seek solutions to the nation's toughest environmental problems. Those researchers who cannot travel to EMSL still can access its capabilities and equipment through EMSL's collaboratory, a suite of technologies that allow real-time remote collaborations via the World Wide Web.

DOE's significant investments in EMSL make it the keystone of the Pacific Northwest National Laboratory. EMSL houses more than 100 equipment systems, including one of the world's top 10 supercomputers and the most powerful, state-of-the-art nuclear magnetic resonance spectrometer ever built.

DOE also is investing in EMSL's research programs. Just last year, laboratory scientists were awarded \$9.6 million in new research that will lead to the breakthrough technologies needed for today's complex environmental problems.

The importance of EMSL goes well beyond cleanup. EMSL will help the Pacific Northwest National Laboratory expand to develop the next generation of scientific understanding and technologies needed for DOE's energy, national security and health missions

Expanding our boundaries

While our environmentally related research programs are ramping up, we also are pursuing non-Hanford work that will grow and diversify the laboratory's business base. Battelle's partnership with DOE in operating the laboratory allows us to diversify our portfolio of work so we can provide increased stability and new opportunities for our staff.

For example, the DOE-sponsored Northwest Alliance for Transportation Technologies will provide us the opportunity to participate in some of the most exciting automotive and materials research of the next century.

The alliance — a partnership among Northwest industries, national laboratories and universities — is aimed at developing advanced lightweight materials for the vehicle of the future.

Researchers from Pacific Northwest will join alliance project teams to build technologies for a vehicle that will operate with triple today's fuel efficiency and greatly reduced emissions.

We're expanding our business by teaming with other local organizations. Siemens Power Corp., Battelle, WPPSS and several other companies have formed a consortium to compete for the Department of Energy's initiative to dispose of excess weapons-grade plutonium.

The consortium's plan calls for fabricating a mixed-oxide fuel from the excess plutonium. This fuel then would be used in commercial nuclear plants to render the plutonium unsuitable for future weapons use and, at the same time, generate electricity.

We also have become partners with the Hanford management contractor to support DOE's efforts to evaluate and maintain the Fast Flux Test Facility as an option for supplying the nation's tritium needs as well as producing medical isotopes to meet an expanding demand.

Building our business takes us all

Hanford advisers play key role in overseeing cleanup

During the past four years, the Hanford Advisory Board has monitored cleanup and waste management at Hanford and provided advice to the U.S. Department of Energy, U.S. Environmental Protection Agency and Washington state Department of Ecology.



Marilyn B. Reeves

Marilyn B. Reeves has served as chairwoman of the Hanford Advisory Board since 1995 and has served on the Environmental Protection Agency's National Drinking Water Advisory Council.

information and open discussion of differing viewpoints.

The board has agreed upon, and delivered, a consistent message based on a set of adopted values that include: protect the Columbia River, accelerate cleanup using the Tri-Party Agreement milestones as the blueprint for action, and protect public and worker health and safety.

The board also expects all programs will be managed in a cost-effective, efficient and accountable way.

Cleanup progress at Hanford was overshadowed in 1997 by several events. The Plutonium Finishing Plant explosion in May put a national spotlight on the dangers posed by nonradioactive materials and inadequacies in the emergency response and protection of workers. And the announcement that radioactive waste from aged leaking tanks has moved through

the soil about 250 feet into ground water focused attention on the urgent need to retrieve and stabilize those dangerous tank wastes.

The disappointing performance of Fluor Daniel Hanford during the first year of its management and integration contract added to the bad news.

Congressional appropriations for funding guarantees for the privatized vitrification of tank wastes were woefully inadequate. The cost overruns and management of a privatization effort in Idaho also may have cast a negative perception that adversely affected Hanford privatization.

Finally, the disappointing announcement of technical problems, huge cost overruns and schedule delays for removal of the K Basins' spent fuel were reminders there are high risks and technical barriers to cleanup.

While the board spent a considerable amount of time on these problems, we recognize that productive work was done in 1997. The Plutonium Uranium Extraction facility, known as PUREX, is the largest of the nation's Cold War plutonium processing plants and the most visible symbol of Hanford's 45-year defense mission. The deactivation of the PUREX facility was completed in 1997, \$78 million under budget and 16 months ahead of schedule. Also in 1997, the spent nuclear fuel program at the K Basins began construction of fuel-drying facilities and the canister storage building.

In the 100 Area, full-scale soil remediation work has continued along the Columbia River. More than 300,000 tons of contaminated soil have been deposited at the Environmental Restoration Disposal Facility. The majority of the deactivation of the N Reactor was completed, including removing more than 400,000 gallons of radioactive contaminated water and 90 percent of the reactor's high-dose materials.

The C Reactor is being put into an interim safe storage status, which will result in the 54,000-square-foot facility being reduced to a leak-proof 16,000-square-foot structure. This boxlike building will be safe, require low maintenance costs and provide on-site storage of the reactor's block for up to 75 years.

The project is currently ahead of schedule, and more than 800 cubic yards of hazardous asbestos, siding materials, mercury, lead and PCBs



Photo courtesy of Bechtel Hanford Inc.

The Environmental Restoration Disposal Facility at Hanford marks the disposal of 500,000 tons of contaminated soil, a project that has been closely monitored by the Hanford Advisory Board.

have been encountered and removed from the building. When the project is complete, surveillance and maintenance costs for C Reactor will be reduced from \$200,000 to \$50,000 a year.

The cleanup program at Hanford faces significant challenges in 1998. At its December meeting, the board identified urgent cleanup issues that deserve special consideration.

Moving forward on the tank waste retrieval and vitrification and removal of the K Basin spent fuel is essential. The board also recognizes the importance of decontamination and stabilization of the wastes in the many high-risk production facilities.

But whatever the challenge, cleanup work requires more emphasis on results-oriented management, streamlined decision-making, improved safety performance and greater accountability for DOE and its contractors.

More than 54 million gallons of dangerous radioactive waste containing 200 million curies of radionuclides are in the 177 underground storage tanks. Hanford currently has no capability to put these wastes into a safer form.

Many of these huge tanks (30-48 feet tall and 75 feet in diameter) have leaked, and most are beyond their life span. The radiological and other hazardous wastes in these tanks are a threat to workers, the river and the regional economy.

Removal of these tank wastes is urgent. The board has discussed the obstacles to tank waste retrieval and vitrification that must be overcome.

Specifically, tank wastes cannot be treated or put into a more safe and stable form until vitrification facilities are constructed. Private companies must be selected to construct and operate these facilities. DOE must provide a waste stream that meets vitrification specifications, and Congress must provide funding for all this.

During 1998, the board intends to focus on tank waste issues, working toward achieving production of vitrified waste by 2002.

Protection of the Columbia River continues to be a board priority. A pump and treat program is necessary to help contain and remove hazardous and radiological contaminants that are now in ground water.

Much more needs to be done to understand the extent of contamination in the unsaturated zone that may be moving to the ground water. Also, work must continue to put the reactors along the river into a low-maintenance, cost-saving interim safe storage status.

The major threat to the river is the K Basins' spent fuel, now stored about 400 yards from the shoreline. Nearly 80 percent of DOE's nationwide inventory of spent nuclear fuel is in the K Basins at Hanford. The fuel storage basins were built in the

early 1950s and designed to operate 20 years. The fuel rods contained in the basins are highly radioactive, and many have corroded, creating a dangerous uranium-contaminated sludge in the basins and making removal very difficult.

There are numerous safety and technical concerns relating to the K Basins' spent nuclear fuel, including uranium leaking from the rods into the water, leakage of contaminated water from the basins into the soil and lack of modern earthquake-resistant engineered features. The aging spent fuel rods and sludges are an unacceptably high risk to the workers and the environment.

The board is concerned that removal of the spent fuel will be delayed because of technical problems. It's anticipated these problems will cause the project to fall a year or more behind schedule. Cost overruns also will adversely affect other cleanup work.

The May explosion at the Plutonium Finishing Plant highlighted the importance of decontaminating and decommissioning such high-risk facilities. These old buildings threaten worker safety and are an environmental and economic hazard for the region. Stabilizing and securing plutonium and other hazardous wastes permit the elimination of expensive security and reduces the maintenance cost. The board believes it makes sense to get on with the job of decontamination

and stabilization of the wastes in all remaining high-risk facilities.

The board repeatedly has advised federal and state agencies to get on with cleanup. It also has affirmed support for the Tri-Party Agreement, the legally binding compact that is the blueprint for cleanup.

One of the most critical components of success is the congressional appropriation of enough funds to enable cleanup to proceed in a cost-efficient manner, avoiding false starts or stops, untimely layoffs of workers and costly retraining. In the face of a declining federal budget, ensuring this happens is becoming increasingly difficult.

The board will continue to stress that enough dollars should be given to Hanford to move cleanup forward. But the board expects tax dollars to be spent in an efficient and cost-effective way, taking into account cleanup goals and the increased costs caused by unnecessary delay. The board reminds decision-makers that the nation pays now or pays more later.

Efficiencies must be implemented and programs held accountable so as much of the funding as possible is spent on measurable cleanup. The board has urged DOE to find ways to achieve more actual cleanup for the dollars spent and to hold contractors accountable for meeting Tri-Party Agreement milestones. Effective and efficient management requires a focused, streamlined decision-making process that is linked to a defined schedule, adequate funding and a clear path forward toward achieving cleanup goals.

Worker health and safety is a high priority for the board. Unless workers are protected, cleanup cannot move forward. The board will continue to focus on ensuring health and safety requirements are met. A safety-conscious work environment will get the job done faster, safer and cheaper.

The board welcomes public participation and comment. The board encourages the public to attend its meetings and share information and concerns about cleanup progress. If you are unable to attend the meeting, send written comments to the Hanford Advisory Board, 723 The Parkway Suite 200, Richland, 99352.

For additional information about the board or to receive a copy of the annual progress report, call 509-943-1804.

Management contract bringing change to Hanford

When the Department of Energy and Fluor Daniel Hanford Inc. signed Hanford's first management and integration contract in the fall of 1996, it symbolized a giant step forward in DOE's contract reform.

DOE sought a new approach and organizational concept for Hanford



Hank Hatch

Hank Hatch is president and chief executive officer of Fluor Daniel Hanford Inc. A retired lieutenant general in the U.S. Army, he is the former commander of the Army Corps of Engineers.

success requires a change in partnerships and alignment at every organizational level within DOE, the Project Hanford Management Contractors and even change in the local community.

To be successful, Fluor Daniel must integrate and direct its project team members, bring commercial business practices into Hanford's operations while technically dealing with 54 million gallons of high-level radioactive waste stored in 177 underground storage tanks, 2,100 metric tons of spent nuclear fuel, 11 metric tons of plutonium in various forms and aging reprocessing plants full of radioactive material.

The expectations are high and the challenges are tough, especially with a declining federal budget and a shrinking work force.

— in essence, a project management organization that not only would manage Hanford's cleanup needs but also would bring economic competition and commercial practices to Hanford.

Ever since, the ground has been shifting constantly. Implementing a new way of doing business requires a lot of change — change in site culture and change in the way our stakeholders, DOE and many of our employees have been operating for decades. Its

spent nuclear fuel from the K Basins by as much as two years.

■ Reduced waste minimization costs by \$300,000; sold 24 excess rail cars for \$80,000 and generated \$1.6 million in surplus sales.

■ Completed a 10-year project to stop untreated liquid discharges to Hanford soil.

■ Opened the Waste Receiving and Processing Facility (WRAP) ahead of schedule.

This is just a short list, but nevertheless, it's a list that shouts teamwork. Each success in itself is a "celebration," and each success was made possible through teamwork. The fact is no single member of the management contract team can solve Hanford's problems alone. But together we can achieve great things. We must work as partners focused on common goals and objectives, and constantly seek win-win solutions.

Unfortunately, our successes are easily overshadowed by events such as the Plutonium Reclamation Facility chemical tank explosion. We've made good faith efforts to improve our performance and are willing to make more changes to stay on track as the leader of the Hanford cleanup.

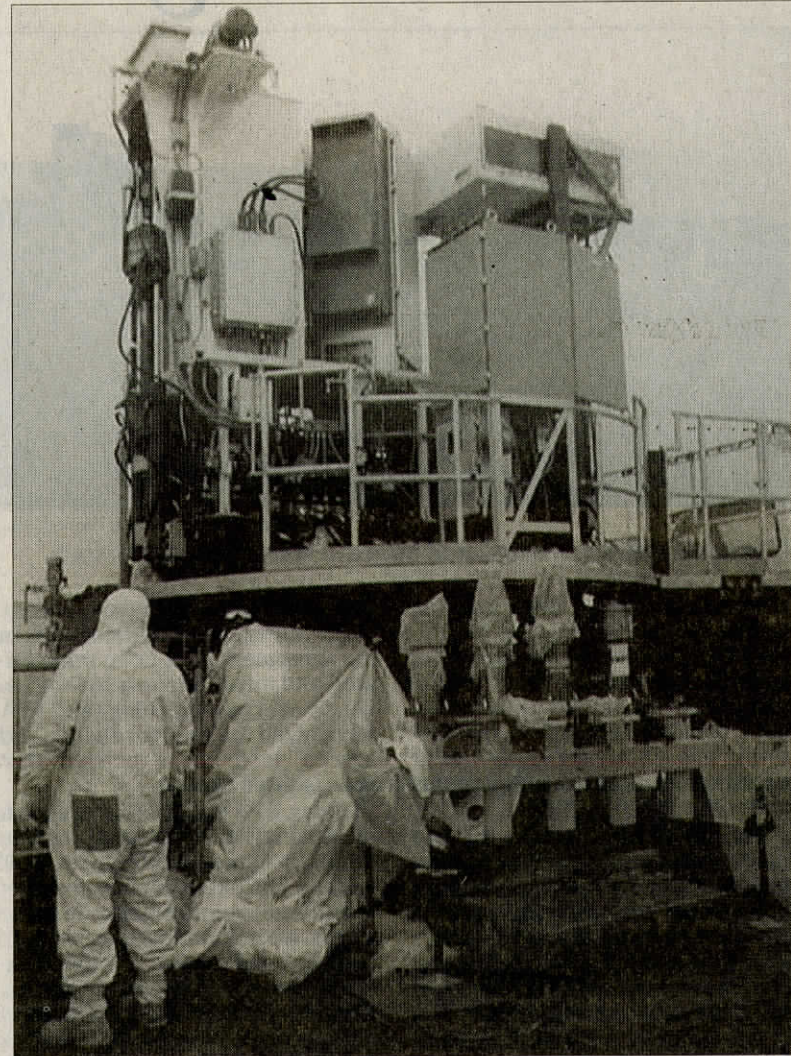
Major changes for DOE and the management contract

We've defined key objectives for 1998 that reflect and build upon what we learned this past year. The first is to facilitate better understanding of the roles and responsibilities of the Project Hanford Management Contract.

DOE's role is different from the old management and operations concept. Today, DOE's role is to lay out the strategy and goals for the site, set priorities, establish objective performance measures, define success criteria and link contractor fees to achieving these goals. A key role is for DOE to hold Fluor Daniel Hanford accountable and let us do our job. For DOE, this is not an easy change.

The Fluor Daniel Hanford role is also different and reflects a change from past contractor roles.

Fluor's job is to set goals for our subcontractors that mirror DOE's



Photos courtesy Fluor Daniel Hanford

A crew from the tank waste remediation system characterization project collects core samples from one of Hanford's storage tanks. The project office set a record during 1997 by collecting 21 tank core samples during a quarter. This achievement was made possible by streamlining procedures and improving equipment availability.

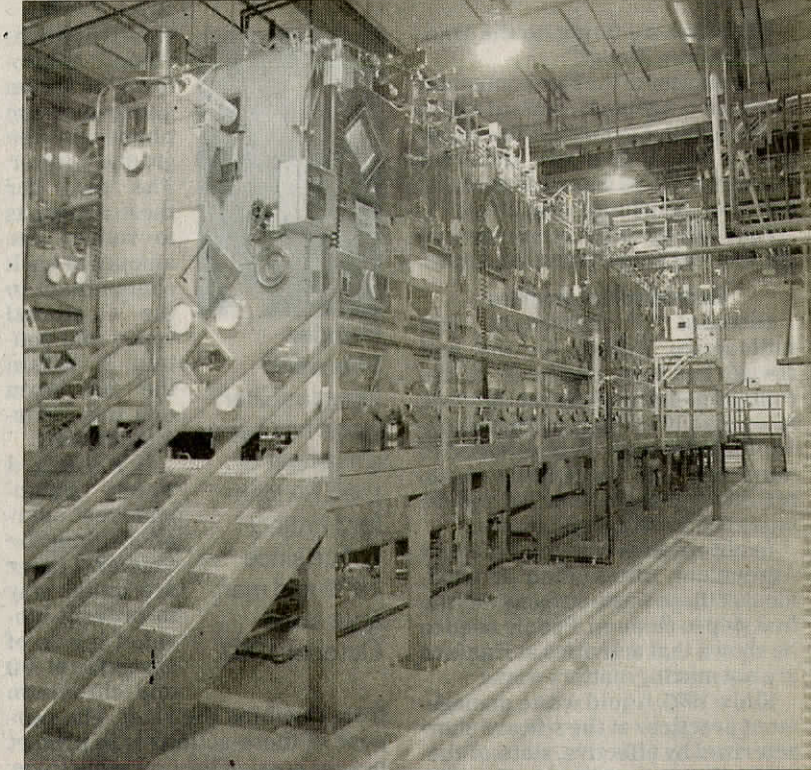
aging. Some of the tanks are known to have leaked, and recent scientific studies point to radioactive contamination of the ground water. The risks to the river are real.

Our 1998 path forward

To deal with these safety risks, our project goals and expectations for 1998 are clear. These include:

■ Working closely with Hanford employees to continue the focus on accident prevention and safety; implement the new, sitewide Safety Management System, which will result in uniform and consistent safety procedures and a safer workplace.

■ Pumping and retrieving the high-



A glove box at Hanford's new Waste Retrieval and Processing facility allows workers to safely handle hazardous waste.

level waste from the underground storage tanks.

■ Putting plutonium into a safe, stable form and into storage.

■ Moving the spent fuel away from the Columbia River and into safe, interim storage.

■ Getting out of the old, dangerous and contaminated facilities and reducing mortgage costs.

■ Getting out of the waste disposal business and accelerating treatment and disposal.

Meeting our own expectations

We also have set our own company expectations that reflect and build upon what we've learned during the past year.

At Hanford, there are urgent and inherent risks to the public and the environment. One of our objectives is to reduce or eliminate them. This means doing a better job of meeting our own expectations.

Like all Hanford stakeholders, we are concerned about the way we are managing the use of taxpayers' dollars. We at Fluor Daniel Hanford must further strengthen our stewardship and focus heavily on accountability — from ourselves and our subcontractors.

Good stewardship means being responsible, emphasizing accountability and being committed. It means getting cleanup results and doing so cost-effectively.

To a large extent, we know what must get done. The real issue is the most effective way to get it done and in the spirit of contract reform. If our 1998 actions meet our own expectations, Fluor Daniel Hanford and its subcontractor team will be closer to meeting today's definition of safe cleanup progress. That will be good not only for Hanford but also for the Mid-Columbia, the Pacific Northwest and the nation.

Hanford Works! revived as credo for waste cleanup

Longtime Tri-City residents and site history buffs know all about the Hanford Works — shorthand for our Manhattan Project-era name, the Hanford Engineering Works. In fact, many of you probably still think of us that way.

Over the past few months, we've begun thinking of ourselves that way again. But with a more modern twist.



John D. Wagoner

John D. Wagoner has been manager of the Department of Energy's Richland office since July 1990. In this position, he is responsible for DOE's missions at the 560-square-mile Hanford site.

phases on many of our projects. We're more committed than ever to openness and public participation. And we're strong partners in the Tri-City community's diversification efforts. But most importantly, Hanford Works! is an expression of our pride in the creative, multitasked men and women we have on our team.

Hanford Works! has been adopted as the unofficial site credo — a common philosophy to unite our projects, focus our goals and express our pride in the good work we're doing on site and in the community.

Hanford does work, as evidenced by the real progress and key accomplishments we made in 1997 and are on schedule to make this coming year. The pace of cleanup is accelerating as we complete characterization and design



A Hanford employee works to clean out contaminated ductwork at the Plutonium Finishing Plant.

Photo courtesy Department of Energy

handling those problems responsibly.

New information that is increasing our knowledge about Hanford tank waste in the ground water illustrates how imperative it is that we get on with tank waste treatment.

The Department of Energy has a long history of concern about this issue. In 1993, DOE decided to propose adding treatment of single-shell tank waste to the Tri-Party Agreement. Originally, agreement milestones dealt only with the waste stored in double-shell tanks. But we believed contamination from tank leaks was likely to reach the ground water, or had already, and took responsible action — long before our November 1997 press announcement.

To address this issue from here forward, I've asked Hanford's environmental restoration contractor, Bechtel Hanford, to manage all issues surrounding protection of the ground water and the soil under and around the high-level waste tanks and to keep the public informed of our progress.

The Spent Fuel Project also has generated some concern after our announcement of a 19-month delay in removing fuel canisters from the K Basins. But it's important to note the delay sets the overall project back by just seven months — we are on track to complete fuel stabilization by July 2001, more than three years ahead of the schedule proposed in 1994. And while the project's estimated cost has risen by \$274 million, the total is still half the cost our contractor was predicting back in 1994.

The project currently is being restructured by DOE and its spent fuel project contractors — Fluor Daniel and Duke — to strengthen it and move it forward. And I'm confident our new schedule will allow the project team to proceed safely and effectively.

These are significant issues — and to dwell on them alone might give the impression Hanford is

sliding backward. It's not. As anxious as we all are to see these projects complete their important work, we've got to remember Hanford cleanup is a decades-long task.

We can't get tired of it. We can't let frustration make us question our commitment. While it's true not all our projects are moving as quickly as we'd like them to, we are moving ahead. We're making tangible progress, we're more open than ever, and we're taking advantage of the time we've got left on cleanup to support economic diversification in the Tri-Cities.

Community partners

I'm proud of Hanford's record of participation and contribution to the Tri-Cities. Our employees don't just live here; our companies don't just do business here.

A key component of Fluor Daniel's winning contract proposal was the creation of six enterprise companies to leverage Hanford expertise and resources, and bring new, non-Hanford work to the Tri-Cities. The concept is showing great promise, with successes such as the following:

■ Fluor Daniel Northwest and SGN Eurisys Services Corp. have been awarded a contract with Atomic Energy of Canada Limited to design and build a new medical isotopes processing facility near Toronto, Ontario. It's the first big piece of non-Hanford business won by an enterprise company — worth about \$14 million.

■ DOE is preparing to lease to SESC Hanford's 306-East building and related equipment, which have been identified as being under-used. The lease will enable the company to use the lab for both Hanford and commercial work — leveraging a site resource for the cultivation of new customers.

■ DOE and its contractors continue to work closely with TRIDEC and other organizations to identify opportunities for Hanford to participate in diversification. We also

Nuclear medicine shows promise for economic health

A friend of the family recently died from cancer. My father-in-law endured his second heart bypass surgery in the spring.

The odds my husband or I will contract one of these diseases are high. Not a pleasant thought.

Here in the Tri-Cities, though, these issues are close to home for more than emotional reasons. Nuclear medicine is offering new and promising technologies to patients suffering from these and other major diseases. And, just as exciting, the Tri-Cities has the opportunity to become the center for an emerging health industry that will benefit thousands, perhaps millions, of lives.

Imagine a cancer diagnosis and treatment system that detects malignancy in its earliest stages and treats it by zapping the cancer, leaving healthy tissues minimally affected.

This same technology offers a treatment for heart disease that appears to decrease clogging of arteries. And researchers are hot on the trail of many other applications that could add a whole new dimension to the health care industry. Nuclear medicine is a reality whose time has come.

Nuclear medicine

Clinical trials conducted by research doctors around the world show promising results for the use of radioisotopes to diagnose and treat cancer, heart disease, arthritis and numerous other conditions. In a world where two in five will contract cancer and even more will suffer from heart disease, new and more effective treatments are an oasis of hope.



Amy Evans

Amy Evans is a member of the Nuclear Medicine Research Council and a longtime Tri-City resident. She has 11 years of experience in education with a master's degree in education administration.

add a whole new dimension to the health care industry. Nuclear medicine is a reality whose time has come.

Examples of radioisotope treatments

Disease	Isotope	Research institution
Heart disease (Restenosis stents)	Re-188	Columbia University
	Y-90	Emory University
	Ir-192	Scripps Clinic
Cancer		
Brain	Y-90	Institut für Nuklearmedizin (Switzerland)
		Fisica Sanitaria (Italy)
Prostate	Pd-103, I-125	Northwest Hospital
Neuroendocrine	In-111	LSU Medical Center
Hodgkins Lymphoma	Y-90	Arlington Cancer Center
non-Hodgkins Lymphoma	I-131	University of Washington
	Bi-213, Y-90, I-131	Memorial Sloan Kettering
Colon, ovarian, breast, lung	Y-90, Re-186	Virginia Mason Medical Center
Arthritis	Dy-165	Brigham and Women's
	P-32	USC Medical Center
	Y-90	Radboud Hospital (Netherlands)
		Leeds Hospital (England)
		Broussais Hospital (France)

For more comprehensive list see <http://www.cbvcp.com/nmrc> on the Internet.

with advanced leukemia doubled when isotope therapy was applied, while in another, two-thirds of Hodgkins disease patients who were not helped by conventional treatments saw their tumors shrink.

Nuclear waste from Hanford provided the parent isotope for the yttrium used in these treatments.

While nuclear medicine techniques for treating disease are little known by the general population and used routinely for only a handful of treatments, they are on the verge of a major breakthrough.

Five FDA-approved therapy drugs have reached the market, treating bone cancer pain, thyroid cancer, hyperthyroidism, polycythemia vera and intracavitary malignancies. More than 100 clinical trials using radioisotopes to treat cancer are under way in the United States, with the expectation more trials will be approved for an increasing variety of therapies.

On the other hand, radioisotopes commonly are used to image the body and diagnose disease. More than 35,000 nuclear medicine procedures are carried out daily in the United States alone.

Nuclear imaging procedures are unique in that they can reveal organ function as well as structure, providing greater diagnostic data and leading to earlier disease detection.

opportunity to enhance our economy while promoting the health benefits offered by nuclear medicine. A nuclear medicine center established here could do for our community what The Mayo Clinic has done for Rochester, Minn. It could mean hundreds, perhaps a thousand or more, family-wage jobs — jobs requiring skills already present in our work force.

Like the three rivers that converge to form our landscape, three characteristics have converged to shape an opportunity of immense significance to our economy as well as the field of medicine.

First, Hanford's legacy has provided us with a nuclear-educated work force, technological infrastructure such as the state-of-the-art Environmental Molecular Sciences Laboratory and the capability to produce a supply of radioisotopes at the Fast Flux Test Facility. Very few communities come equipped with such wonders.

Second, this is a unique time in our history. Recent efforts to privatize yttrium-90 production may displace some highly educated and technically trained workers who easily could transfer their skills to nuclear medicine. And technology developed for the cleanup mission also can be applied to create new kinds of smart bullets, while US Ecology's low-level radioactive waste disposal site offers a rare and

the foundation here is already laid. The question remains as to whether we will invest the time, money and energy to create a building as remarkable as its blueprint.

Nuclear Medicine Research Council

The Nuclear Medicine Research Council is a nonprofit organization formed by concerned citizens from a variety of fields (scientists, engineers, government officials, educators, physicians, cancer survivors).

Its mission is to promote the beneficial uses of nuclear medicine worldwide and help the Tri-Cities establish itself as a leader in the field of nuclear medicine.

The council is working with a number of local physicians who have an interest in cancer care to assess opportunities in radioisotope therapy.

The council envisions this area supporting a center for human clinical trials; a graduate-level radiopharmacy program; technical training programs; radioisotope research and development activities; manufacturing, packaging and shipping of medical isotopes; and patient treatment. Some of these programs are in place now, while others are yet to become reality.

The group meets weekly to coordinate activities aimed at accomplishing this mission.

United States, is expected during the current biennium.

WSU College of Pharmacy professor Ron Kathren looks forward to admitting the first students and working with Pacific Northwest National Laboratory and private interests to develop and carry out nuclear pharmacy-related research.

The council is creating a resource database of information on nuclear medicine and radioisotopes. In addition, council-sponsored conferences over the past two years have brought together professionals and researchers from around the nation to discuss issues related to nuclear medicine.

At the September conference, nationally recognized researchers and practitioners voiced enthusiastic support for an advanced-phase human clinical trial and treatment center here. Doctors at the Tri-Cities Cancer Center echoed their optimism.

Several Department of Energy reports completed in 1997 assessed the feasibility of a medical isotopes mission for FTF, including a Frost & Sullivan market survey and a technical and economic assessment prepared by PNNL and Fluor Daniel Hanford.

In addition, Tri-City Industrial Development Council 3161 money allowed the council to consult with an independent firm (Ray Robinson of RKRI Inc.) to produce a strategic plan for developing a nuclear medicine industry.

All reports indicate a green light for the future of nuclear medicine in the Tri-Cities. According to Frost & Sullivan, the market for medical isotopes is expected to explode in coming years. Isotopes used in diagnosis, valued at about \$531 million in 1996, are expected to grow to more than \$16 billion by 2020. Therapeutic isotopes, valued at a mere \$48 million in 1996, could see growth to upward of \$6 billion by 2020.

Ninety-five percent of today's U.S. supply of isotopes for medical applications currently comes from foreign countries. Even without the expected growth, a reliable supplier and distribution center within the United States is essential.

According to the Nuclear Medicine Research Council's Strategic Plan, now is the time to use and leverage the many physical and human assets available at Hanford

The strategy

The starter's gun has fired. The horses are breaking away from the chutes, and the race of time and technology has begun.

In January, private companies bid for the opportunity to take over the current work of supplying yttrium-90 for clinical trials around the world.

Companies involved in nuclear medicine have expressed interest in doing business in the Tri-Cities. Some research doctors already travel here to conduct studies on nuclear medicine devices with Hanford personnel.

The message of the Nuclear Medicine Research Council's strategic plan to itself and the Tri-Cities is: Act Now!

Here are the key steps in the plan's 1998 recommended course of action for the Tri-Cities and the council:

- Strengthen and expand nuclear medicine outreach, support networks, collaborations and partnerships.

- Formalize local and national advisory group to provide advice and oversight.

- Investigate locations and scope of a multipurpose clinical-trial and patient-treatment facility.

- Actively support existing local nuclear medicine entities, infrastructure and FTF.

- Aggressively recruit new nuclear medicine industry to the Mid-Columbia.

- Help expand knowledge and use of nuclear medicine therapeutics locally and nationally.

- In collaboration with local, regional and national experts, start work on amending the best investigative new drug applications and establishing a premier, world-class nuclear medicine center in the Tri-Cities encompassing research and development, education and training, isotope brokering and production, radiopharmaceutical manufacture, human clinical trials and patient treatments.

Some day, nuclear medicine may save the life of a friend with cancer or prevent the re-clogging of arteries in a relative with heart disease. It may allow a tumor to be detected earlier and therefore treated more quickly. Promoting the cause of nuclear medicine is not done for just economic rea-

State on DOE clean

By John Stang
Herald staff writer

The state has stepped sure on the Department to meet deadlines for cleanup.

Pressure was increased this week when state denied a DOE request pumping of eight radioisotopes tanks. The action mirrored denial for six other tanks.

The denials continue state actions to pressure meet the legal deadlines governing Hanford's cleanup under its agreement with the state and federal Environmental Protection Agency.

"I think the state has made it very clear it intends to put maximum pressure on us under the Tri-Party Agreement," said Hanford Manager John Wagoner. "Where we're concerned we don't need this kind of passing pressure to do things. We're already doing it."

On Tuesday, Tom Fitts, director of the state Department of Ecology, wrote Wagoner that the state fears DOE is moving to delay the removal of wastes from Hanford's shell tanks shows by the years.

House panel probes cost in cleaning up K Basins

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

WASHINGTON — A House subcommittee is investigating a massive cost overrun and schedule delay in cleaning up one of Hanford's most unsafe sites — the K Basins.

The House Commerce Committee's oversight and investigations subcommittee launched the investigation into the K Basins cleanup in January after the project's costs jumped by \$274 million to a total of more than \$1 billion and its completion date slipped 19 months to 2003.

"Delays and cost overruns on this project could increase health and safety risks

It's your call:

Should Congress investigate K Basins cost overruns. **This page.**

to workers, the public and the environment and will impact the amount of funding available to support other cleanup needs at the Hanford site," the subcommittee's chairman, Rep. Joe Barton, R-Texas, said in a letter to Energy Secretary Federico Peña obtained by the Herald's Washington, D.C., bureau.

Barton, in the Jan. 21 letter, requested the Energy Department to supply a number of documents, including documents from the department, Fluor Daniel Hanford and Duke Engineering and Services Hanford. Fluor Daniel is the main site contractor at Hanford, and Duke has responsibility for the K Basins cleanup.

Subcommittee staff also have visited Hanford and conducted interviews of DOE and contractor officials involved in the project.

Hanford budget, cleanup concerns discussed in Richland

By John Stang
Herald staff writer

Congress passes environmental cleanup laws.

And Congress provides the money for the Department of Energy to comply with those laws.

"This is the place where there's tension between the funding we get and the laws we enforce," said Doug Sherwood, the U.S. Environmental Protection Agency's Hanford project manager.

Sherwood was at a public feedback meeting Thursday in Richland where the funding priorities for Hanford's fiscal 2000 budget were discussed.

The theme throughout the evening's discussions was that if Hanford's budget stays level, the site will fall more and more behind

on its legal cleanup obligations.

DOE's Richland office is putting together its preliminary budget request for fiscal 2000 — a request that won't go to Congress until early 1999.

If fact, DOE's Washington, D.C., headquarters has not yet set a fiscal 2000 target budget figure for the Richland office to work with. That target is expected to be set this month.

Meanwhile, the Richland office is supposed to send its preliminary budget recommendations to DOE's Washington, D.C., headquarters by April 15.

So until it gets a target figure from Washington, D.C., the Richland office is assuming the fiscal 2000 cleanup budget will be the same as the proposed fiscal 1999 cleanup budget.

That's \$1.114 billion.

But DOE and regulatory agency officials, plus Hanford Advisory Board members, pointed out problems Thursday with a flat budget of \$1.114 billion.

These include:

■ A \$42 million shortfall in meeting legal obligations in 1998 will likely grow to \$76 million in 1999, and then to \$80 million in 2000.

■ More cleanup problems are surfacing at Hanford without expectations of any corresponding growth in federal money to tackle them.

■ Similar extra problems are surfacing at DOE's Rocky Flats and Fernald sites, resulting in those sites wanting more money. And Hanford's increased needs will have to compete with those increased demands on a limited nationwide cleanup budget.

■ Level budgets are tentatively predicted through at least 2006, but inflation is not factored into those projected budgets. A Hanford Advisory Board financial affairs committee calculates that inflation alone could eat up about \$1 billion in Hanford cleanup funds through 2006.

■ Several projects earmarked for 2000 would likely be delayed.

These include speeding up the removal of plutonium from the Plutonium Finishing Plant to close it by 2006, and speeding the disposal of Hanford's transuranic and mixed low-level wastes.

And delayed projects could include planning efforts on what to do with several huge 200 Area "canyon" buildings after they are cleaned, and cleaning some 300 Area buildings that could be used

for economic purposes.

Also, a study on what needs to be done to convert the B Reactor into a museum would likely be delayed with a flat budget.

About 30 people showed up Thursday at the Richland Doubletree Hotel. The majority were Hanford officials. Less than a dozen were members of the public, and most of those were Hanford Advisory Board members.

Questions and comments were scattered among several topics.

The biggest concerns revolved around the future fiscal 2000 budget request meeting all of Hanford's legal cleanup obligations.

Hanford board member Gerald Pollet, of Heart of America Northwest, argued that too much money is earmarked for overhead, siphoning money from Hanford's legal

cleanup obligations.

Another Hanford board member, Gordon Rogers, who represents the general public, wondered if Hanford's Tri-Party Agreement obligations could be modified to meet whatever Congress appropriates for a specific year. Lloyd Piper, DOE's deputy Hanford manager, said versions of that arrangement exist at DOE's sites at Rocky Flats and Oak Ridge.

However, the state and EPA are dead set against delaying deadlines because of less-than-full funding.

"Lack of funding is not an excuse to miss major cleanup deadlines," said Ron Skinnarland, the state ecology department's Hanford 200 Area section manager.

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

Tuesday, March 10, 1998

Hanford's 'burping' tank gets top priority

By John Stang
Herald staff writer

Hanford officials still haven't figured out why radioactive wastes are rising in Tank SY-101, so they've decided to kick in extra safety measures.

The Department of Energy declared an Unreviewed Safety Question for Hanford's most famous burping tank, as requested by Lockheed Martin Hanford Corp.

The Feb. 26 declaration makes the mystery tank a higher priority and elevates safety measures.

Tank SY-101, which contains 1.12 million gallons of wastes, is one of central Hanford's 177 waste tanks that hold a total of 54 million gallons. This is the famous "burping" tank

that was fixed by a giant mixer pump being inserted into it in 1993.

For the past year, the waste has been unexpectedly rising.

In February 1997, the tank's wastes were 397 inches deep. On Monday, those wastes were 401.72 inches deep.

Fluor Daniel Hanford and Lockheed, which manages Hanford's tank farms for Fluor, have until March 20 to produce a plan for dealing with the slowly rising waste.

No reason has been pinpointed for the rising surface level.

Possibilities include the crusty top layer getting thicker, gas building up under the crusts or among the thick liquids, gas being trapped further down in the tanks or foam building up.

Measures have been taken to keep gas from building up.

In the past, hydrogen gas would build up at the tank's bottom and then abruptly burp into the air in the upper tank to be released through its vents. These belches increased the potential for flames or dangerous gases to violently erupt in the tank.

The mixer pump installed in 1993 circulates liquid wastes from the tank's upper layer down to the bottom where jet nozzles discharge the liquid about two feet from the bottom. This prevents gas bubbles from building up at the bottom.

The result is that hydrogen is vented in small steady streams, rather than in burps of concentrated gas.

Hydrogen still is venting out of the tank in

safe and steady amounts, said Carolyn Haas, DOE's planning director for the tank farms.

A major change since 1993 is that a solid crust has replaced the wastes' original liquid and sludge surface, DOE officials said. And that crust apparently is growing thicker.

Lockheed's and Fluor's planning will include how to go through the crust to collect crust, liquid, gas, sludge and foam samples of the waste, DOE officials said.

Those tests and any fix-it work will likely be expensive, they said, adding that more planning needs to be done before a dollar amount can be calculated.

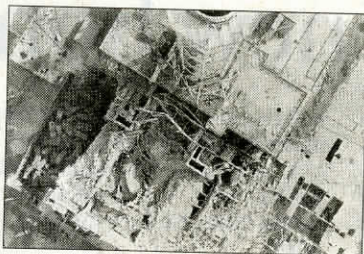
■ Reporter John Stang can be reached at 582-1517 or via e-mail at jstang@tri-cityherald.com

Hanford company reaches worker safety mark

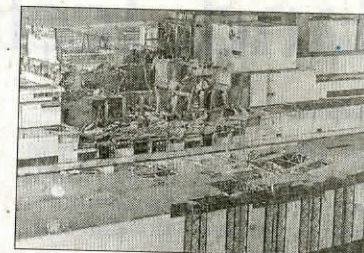
B&W Protec Inc. recently reached a mark of 1 million hours worked without an accident resulting in an employee losing time from work.

The subcontractor responsible for Hanford's security reached that mark in late January, and the streak still stands, according to a Fluor Daniel Hanford news release. The company employs 320 people.

"Working a million hours without a lost-time injury is a significant accomplishment since much of what we do involves a high degree of physical training and activity," said Dan Baker, B&W Protec's director.



“The heart of a monster”



PNNL officials hope to help head off another disaster

CHORNOBYL, Ukraine — Two Hanford companies want to ensure there is no Chornobyl II.

The threat of the 20-story concrete building erected around the crippled Ukrainian reactor collapsing and sending a cloud of radioactive debris around the globe haunts nightmares of the world's scientists.

It's a real threat, however, and that's why scientists at the Department of Energy's Pacific Northwest National Laboratory operated by Battelle are working on a bid to replace the cement shelter that covers the melted core of Chornobyl plant No. 4. PNNL already is a key player in DOE's efforts to improve nuclear safety in the former Soviet republics.

Battelle has joined with Bechtel Hanford Co. and a French company to bid on the \$760 million shelter project. The winning bidder for the project is expected to be announced by Friday.

“I've never been so frightened. This is incredible.”

John Wagoner, Hanford DOE manager, while touring the inside of Chornobyl No. 4 reactor

Whoever wins the contract would be working in a place of science fiction without the fiction: an other-worldly place which is, unfortunately, of this world.

A dozen years ago, the most serious accident in the history of nuclear power occurred at the Chornobyl nuclear power plant. Operators doing a test of



Photos courtesy Pacific Northwest National Laboratory

A group including officials from the U.S. Department of Energy and the Pacific Northwest National Laboratory visits the deteriorated control room of Chornobyl Nuclear Plant No. 4 in February. Reactor operators in this control room failed to prevent the 1986 explosion that spread radioactivity across the world. Former Herald reporter Wanda Brinson is in the foreground.

radioactive dust to escape. Birds fly in and out, spreading more contamination. Water from rain, snow and cleanup work not only causes structural corrosion, but it also is turning some of the melted uranium fuel into radioactive dust, creating yet one more hazard for workers.

The water also raises the risk of a so-called “criticality” accident inside the shelter. Monitoring has shown occasional increases in the neutron count rate, suggesting uncontrolled nuclear chain reactions might be taking place.

Scientists also say the cement tomb probably is too heavy for the foundation supporting it and would collapse in an earthquake. If that happened, it would raise a radioactive dust cloud that again would contaminate the environment for miles around.

Of even more immediate risk is that the sarcophagus is leaching radiation into the ground water that slowly is making its way to the nearby Dneiper River — Ukraine's Columbia. Tri-City visitors were told repeatedly to drink only bottled water in Ukraine.

Even so, says DOE's Hunter, the sarcophagus is in better shape today than when he was inside a year ago. “On the surface, at least, there have been some housekeeping improvements.”

Of greater importance, Hunter said, “is that the U.S. is starting to have some influence in the manner in which work will get done at the shelter regarding radiation exposure.”

Ukrainian nuclear crews don't work under the same regulatory conditions required in the U.S., Hunter noted. “They just send someone in to work, and when they think he has had enough, they

New danger lurks at Chornobyl

Tri-Citians part of efforts to head off another disaster

By the Herald staff

It's been almost a dozen years since an accident at an obscure nuclear power plant now called Chornobyl No. 4 threw the Tri-Cities' economy into a nose dive.

The April 26, 1986, fire and explosion in the reactor in Ukraine spewed radiation across the world, killed 31 firemen and contaminated thousands of people.

It also immediately brought the glare of international attention to Hanford's last operating defense production reactor, the N Reactor, which had similarities to the ill-fated Ukrainian power plant.

In the week after the accident, the Department of Energy and its contractors at Hanford answered about 2,000 calls from reporters worldwide. The stories suggested N Reactor was Chornobyl's twin and a disaster waiting to happen.

Special report

PNNL:

Bid made to replace cement shelter. **Page A8.**

Going home:

Richland scientist returns to Chornobyl. **Page A8.**

Helping out:

U.S. steps forward to help. **Page A9.**

The people:

Nuclear disaster shattered many lives. **Page A9.**

But Chornobyl's scars still disfigure Ukraine, and the country verges on bankruptcy as it struggles for independence from Russia. And the shattered reactor, hurriedly enclosed in a shelter after the accident, threatens to cause yet another terrible accident.

But Tri-Citians from DOE's Pacific Northwest National Laboratory operated by Battelle are working to prevent another disaster.

Through an international agreement signed in 1995 by the United States and industrialized

European countries, DOE is providing financial and technological help to Russia and Ukraine to deal with Chornobyl.

So far, the U.S. has invested \$300 million in the international nuclear safety program — providing engineering and technical work, simulators and training, emergency operation instructions and in-depth safety assessments.

Former Herald reporter Wanda Briggs, who retired last year, saw some of the results of this program in February when she visited Ukraine as a guest of PNNL. It was her second visit to



Courtesy Pacific Northwest National Laboratory

American officials leave the Chornobyl No. 4 reactor site in February. The large structure in the background is the shelter — called a sarcophagus — that was built over the gutted reactor after the 1986 accident. Today, the United States is helping Ukraine clean up the site and shore up the rickety shelter because of fears it could collapse and spread more radioactivity.

Ukraine and the disaster site: She also was there for the Herald in 1994.

Briggs' recent visit showed a country struggling to gain its own identity — even dropping the old Russian spellings of its capital city and the reactor name. The capital is now spelled Kyiv (not Kiev) and the reactor is Chornobyl (not Chernobyl).

The trip also produced snapshots of Chornobyl's lasting effect on the struggling country and the gritty international effort to help it recover.

European countries, DOE is providing financial and technological help to Russia and Ukraine to deal with Chornobyl.

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Ukraine and the disaster site: She also was there for the Herald in 1994.

Panel to play larger role in Hanford waste matters

By John Stang
Herald staff writer

An expert advisory panel dealing with Hanford's SX Tank Farm faces an expanded role in subterranean Hanford matters.

For a couple of years, an independent panel of four soil and hydrogeology experts has been critiquing Hanford's efforts to track the seeping of radioactive wastes that leaked from the underground tanks at SX Tank Farm in the 200 West Area.

Now Energy Undersecretary Ernest Moniz wants that panel to expand its size and roles.

Numerous details still have to be worked out on that proposed expansion, panelists said Thursday after winding up a four-day meeting in Richland.

Moniz wants the panel to begin reviewing Hanford's efforts to track seeping wastes under other tank farms, with BX and BY Tank Farms possibly leading that list.

And Moniz wants the panel to review efforts led by Bechtel Hanford Inc. to chart out a master plan by late 1998 to coordinate all of Hanford's sampling, analysis and fix-it plans for wastes seeping through the ground.

Hanford has 54 million gallons of radioactive wastes in 177 underground tanks divided into 18 clusters — or "tank farms."

At least 67 tanks are suspected leakers, with a 68th being studied for that possibility.

The leaking tanks have sent about 1 million gallons of waste

into the "vadose zone" — the subterranean area between the surface and the aquifer, which is 210 to 310 feet beneath the surface.

Some wastes have reached the ground water.

A basic problem at Hanford is that it has several vadose zone and aquifer sampling, analysis and treatment programs that are not coordinated well.

Bechtel's mission — with the expert panel to review it — would plan how to mesh those programs together.

Meanwhile, Moniz is considering expanding the size of the panel.

For a long time, it had four members. It recently added a fifth — Pete Wierenga, a soil scientist who works as a private consultant and at the University of Arizona at Tucson.

How many new panelists will be added is still up in the air.

The four original panelists are:

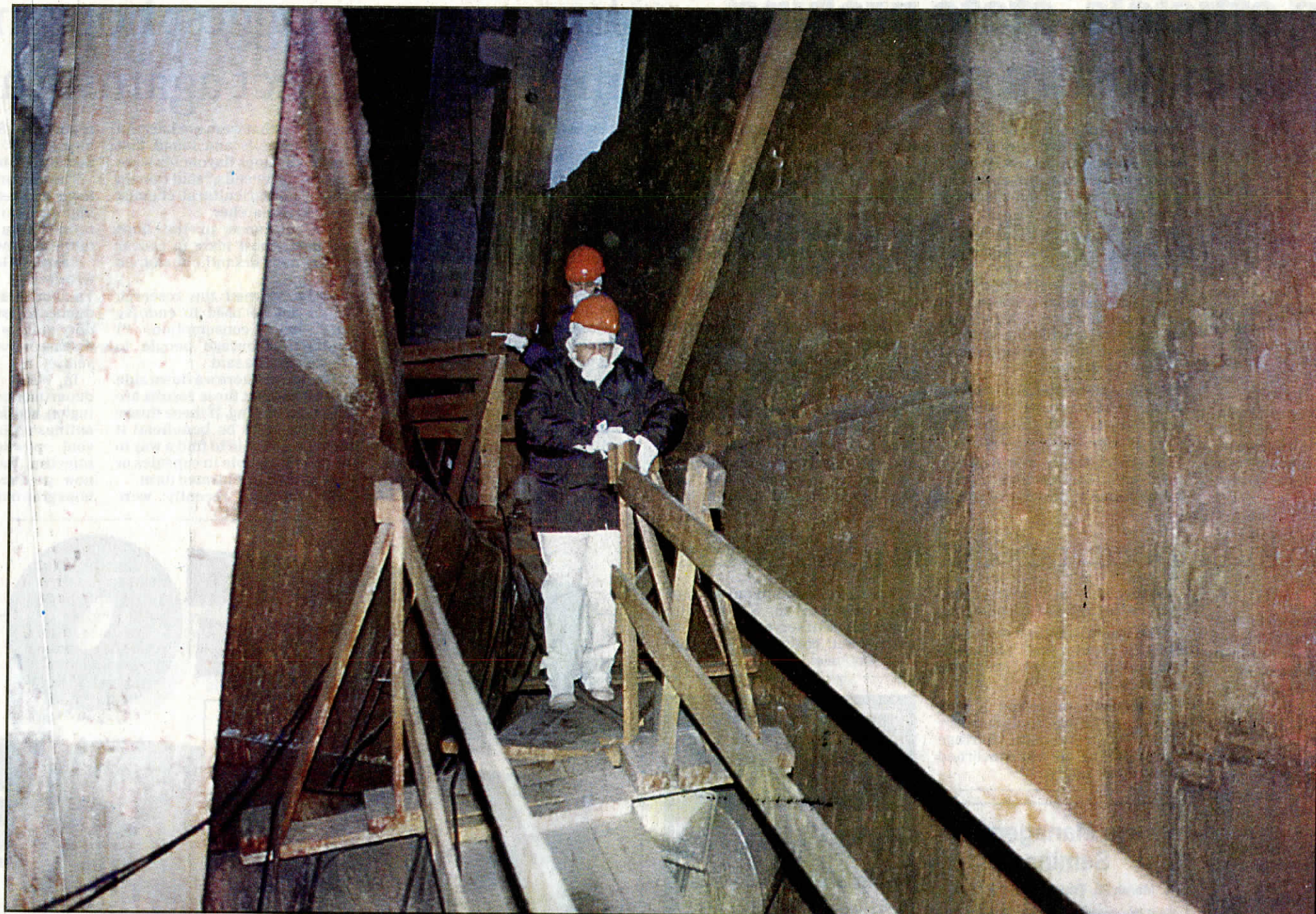
■ John Conaway, a geophysicist from the Los Alamos National Laboratory.

■ Bob Luxmoore, a soil scientist and private consultant who works at Oak Ridge.

■ Ralph Patt, a recently retired hydrogeologist for the Oregon Department of Energy.

■ John Matuszek, an independent hydrogeological consultant from New York.

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Laurin Dodd of the Pacific Northwest National Laboratory, followed by a Chornobyl plant operator, walks on a catwalk through the rubble-strewn shelter facility at the shattered Ukrainian nuclear plant.

U.S. steps forward to help Ukrainians back on their feet

UKRAINE — If this country fails to become a strong, independent democracy, it won't be because the United States hasn't been a good neighbor.

Through a program managed by the Pacific Northwest National Laboratory in Richland, the United States, under the direction of the Department of Energy, has invested \$300 million in this struggling nation since 1995,

will attract medical, scientific and alternative energy research.

"This U.S.-led effort is the right thing to do," Lash said.

Ronald Cochran, executive officer of the Lawrence Livermore National Laboratory in California, added: "Think what it would have been like if the U.S. hadn't helped its former enemies, Germany and Japan. We have a chance now to help this country — our



Kyiv shows progress but many still suffer

KYIV, Ukraine — America's influence is evident throughout Kyiv, the capital of this 7-year-old country and home to 2.4 million people.

Billboards touting Marlboro and Camel cigarettes clutter the city, which is filled with smokers.

New hotels have been built to accommodate the rush of foreign visitors here since the Chornobyl accident in 1986. But at prices ranging from \$135 to \$400 a night for not much more than a Motel 6, the rooms aren't used by locals.

There are six McDonald's in Kyiv. The price of a Big Mac compares to prices in the U.S. — but still costs too much for most Ukrainians, whose monthly wage averages \$100.

On the surface, life looks easier than it did when this writer last visited four years ago. There are more cars on the roads, and fewer potholes. But many of the cars are old and hard to use. U.S. aid has helped

backed science and research center and to meet high-level government officials, who told him that only with U.S. support can Ukraine overcome centuries of communist control.

The United States has invested \$1 million in the new laboratory in Slavutych, 25 miles from the Chernobyl reactors. It will do research on nuclear reactor safety and Chernobyl contamination, but also is viewed as a key to Ukraine's economic diversification.

Director Valery Glygalo has made it clear he hopes the new facility also

United States, through PNNL, has provided worker training to reduce risks at Chernobyl plant No. 3. It also has supplied such items as air-monitoring equipment, radiation protection clothing and dosimeters and software to track worker radiation exposure.

The United States also has opened a milk decontamination plant, where technology developed by an Atlanta firm is being used to remove cesium from milk without altering its taste or color. And officials have agreed to open a radioecology lab in the area closest to the crippled reactor to con-

The ghost town of Prip'yat, a former Soviet "model city" looks over the concrete and steel sarcophagus that entombs Chernobyl's reactor No. 4.

tinue studies under way by the Savannah River Ecology Laboratory into ecological effects of the accident.

PNNL and other laboratories also are looking at whether it would make economic sense to use contaminated soil and trees closest to Chernobyl as a fuel to generate power.

And Battelle, along with Bechtel Hanford Co. and a French company, have teamed to bid on the \$760 million

project to replace the cement shelter that covers the core of Chernobyl plant No. 4.

Bill Madia, PNNL's director in Richland, describes the efforts as "a multi-step process that has as its objectives to substantially improve the safety of nuclear reactors in general in Eastern Europe, and specifically to deal with the catastrophe of Chernobyl contamination."

Translator rebuilds a life devastated when reactor blew

UKRAINE — The Pacific Northwest National Laboratory is trying to make life easier for people living in this former Soviet-dominated country.

Larysa Veselska is one of the first successes.

"My work for PNNL helps pay the rent and feed my sons," said the 41-year-old single mother. "I could not manage with only what I am paid from my own job."

Veselska works in the capital city of Kyiv for Chernobyl Union International, a grassroots organization formed to help victims of the Chernobyl nuclear disaster. The job pays the equivalent of \$90 a month, not quite at Kyiv's average monthly salary of \$100.

Her second job began four years ago, when she was first hired as a translator for PNNL's Laurin Dodd and a group

accompanying him to Ukraine and Russia to promote a Tri-City-based nuclear disarmament plan.

The introduction opened doors Veselska never thought possible.

She since has traveled to Richland to interpret for Ukrainians who have worked with PNNL on several programs. She has tasted American hamburgers and ice cream, been astonished at the foods offered in Tri-City supermarkets and flabbergasted at what she found at Columbia Center.

"America has so much," she said, "and you don't even know it."

She was translating again in February, when a delegation from PNNL and the U.S. Department of Energy arrived to dedicate a new science and research laboratory. The money is important to her.

Veselska lives in a state-subsidized apartment where rents are raised

almost monthly to keep up with the country's spiraling inflation, which last year jumped nearly 60 percent.

Her older son, 20, works a few hours each week, which adds to the family's income.

But still, she said, "We barely get by."

Her 13-year-old is growing out of his jeans. But to replace them, even if they could be found on a store shelf, would cost about \$80, more than she can afford.

Still, four years ago her constant worry was providing food for her children.

The mainstay of their diet remains thick, brown bread, cabbage and potatoes. But because of the occasional work she does for PNNL, today she's often able to add butter, sausage and cheese.

This good fortune did not come accidentally.

When the reactor some 80 miles from Kyiv blew up, Veselska's family was living in nearby Prip'yat, the town built for Chernobyl workers. She and her then-husband had been working at Chernobyl eight years.

The government gave her family 10,000 rubles, the equivalent then of about \$6.66, as compensation for having to leave heavily contaminated Prip'yat. She salvaged only a few pictures, documents and a lamp.

"Everything else was left behind — all contaminated — all gone."

In 1992, she began working for Chernobyl Union and studied English in her spare time. She had noticed all of the visitors coming from the United States.

"I knew I had to learn to speak your language because I knew that it would be your country that would help mine."

Bill Madia, director of the Pacific Northwest National Laboratory in Richland operated by Battelle, agrees. Under the direction of the U.S. Department of Energy, PNNL is leading the international aid effort in Ukraine.

"This is not a country that wants to be fed. They don't want a handout. They want to learn to do for themselves. They want and need a hand up. What we are trying to do is give them the fishing skills they need," Madia added.

But it will not be easy. The country faces many challenges, including maintaining the four nuclear reactors at Chernobyl — none of which now operates — and which consume 8 percent of the national budget.

Another big problem is a chaotic political system that is 30 percent communism and includes 50 other political parties constantly warring for power.

Ukraine has been through six governmental leadership changes in the seven years since it broke away from the Soviet Union.

And voters here have the opportunity March 29 to strengthen parliament by taking control away from the Communist Party, which holds a plurality in the Rada, or Ukraine Supreme Council, the equivalent of a U.S. Congress.

Volodymyr Shovkoshytny, a strong pro-American proponent and past visitor to the Tri-Cities, is running for the Rada seat he lost four years ago. The poet-turned politician says strong leaders who believe in free thinking, free spirit and freedom are necessary for Ukraine's future.

Shovkoshytny is president of Chernobyl Union International and helped clean up the Chernobyl reactor in 1987-1987. He was so severely irradiated his hair fell out and he could barely breathe.

"Ukrainians now control our own future, and we don't want to give that up," he said recently. There is a pride of ownership, he explained, that was missing in the early years of Ukraine's independence.

Adds Rudya, "Give us another decade and then look at us. We will be strong. We will be fed and we will be free."

Committee OKs \$15 million request

Congress now must determine if Hanford will get appropriation for cleanup

By John Stang

Herald staff writer

A request for an extra \$15 million in Hanford cleanup money was approved Tuesday by the Senate Appropriations Committee, according to officials with U.S. Sen. Patty Murray, D-Wash.

If Congress passes the appropriation, more money will go to pumping out Hanford's single-shell tanks and to studying the subterranean area beneath the radioactive waste tanks.

"Completely cleaning out all older, potentially leaking single-shell tanks must be a top national priority," Murray said in a news release. "Today, we are taking another step in accomplishing this goal."

The \$15 million was part of a supplemental appropriations bill to add more money for the Department of Energy, defense and disaster programs.

The \$15 million is proposed to be added to Hanford's \$1.093 billion cleanup budget for 1998, which includes \$308 million for tank farm operations.

The bill calls for:

■ An extra \$13 million to begin pumping two

additional tanks and get preparations under way for a third tank in 1998.

■ \$2 million that was slated for DOE's Washington, D.C., headquarters to be rerouted to studying Hanford's "vadose zone" — the area between the surface and aquifer.

Central Hanford has 177 tanks containing 54 million gallons of radioactive wastes. At least 67 tanks are suspected of leaking about 1 million gallons of waste into the ground, with some reaching the aquifer.

Hanford wants to pump liquid wastes out of the 149 older single-shell tanks into 28 newer and safer double-shell tanks.

So far, 119 tanks have been pumped, three are being pumped and DOE originally expected to begin pumping at least two more this year.

But the Tri-Party Agreement calls for pumping to have begun on 17 tanks in 1998.

The last missed deadline was Sept. 30, 1997, when pumping was supposed to have begun on six tanks.

DOE wanted to extend that deadline to March 31 and possibly later, but the state denied that request last month.

Deadline to begin pumping another eight tanks is March 31 — which is expected to be missed.

The state has been increasing pressure on DOE to pump out the tanks and eventually convert the wastes into glass.

The state is pondering whether to fine DOE for the missed deadlines.

And Gov. Gary Locke has threatened a lawsuit against DOE if the tank program falls significantly further behind schedule.

Meanwhile, DOE originally allocated roughly \$4 million for vadose zone studies this year, which would be boosted by the extra \$2 million.

These studies are needed for ground water cleanup programs, plus how to figure out the best ways to remove solids and salts from the tanks after the liquids are removed.

A strong candidate for removing the solids is sluicing the tanks with water, which could send additional wastes out of the leaking tanks.

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Hanford briefs

By the Herald staff

Senate postpones K Basins hearings

A Senate committee's hearings on cost increases at Hanford's K Basins have been delayed to late April or early May, according to the office of U.S. Rep. Doc Hastings, R-Wash.

Hastings met last week with U.S. Rep. Joe Barton, R-Texas, chairman of the House Commerce Committee's oversight and investigations subcommittee. Hastings told Barton that Hanford officials need a chance to get the project back up to speed.

The subcommittee launched the investigation into the K Basins cleanup in January after the project's costs jumped by \$274 million to a total of more than \$1 billion and its completion date slipped 19 months to 2003.

The K Basins are two huge indoor pools holding 2,300 tons of spent nuclear fuel near the Columbia River. The plan is to move that fuel to a storage site in central Hanford.

Richland tech incubator to be dedicated

The Applied Process Engineering Laboratory will open at 11 a.m. March 26 with a ribbon-cutting ceremony.

The laboratory in north Richland, called APEL, will serve as an incubator for new technology businesses. Many of the users will be entrepreneurs who can use the lab for up to three years and then will be encouraged to remain in the Tri-Cities and create new jobs. Pacific Northwest National Laboratory and Washington State University at Tri-Cities also will do research at the lab.

The ribbon-cutting ceremony will be at APEL, 350 Hills St., which is a former Washington Public Power Supply System warehouse. Bob DeGrasse, director of worker and community transition for the Department of Energy, is scheduled to attend.

Wednesday, March 18, 1998

DOE rejects Public Health Service's proposal

By Annette Cary

Herald staff writer

The Department of Energy has turned down the U.S. Public Health Service's proposal to take over occupational health and medical services at Hanford.

The Hanford Environmental Health Foundation, a private, nonprofit corporation, has been providing those services to the Hanford work force since 1965. Its contract expires Sept. 30.

With the Public Health Service no longer in the running, DOE plans to issue a request for proposals about April 8. Companies interested in the five-year contract would have to turn in their proposals May 22.

The DOE had been scheduled to release its request for proposals in February but delayed the move when the Public Health Service stepped forward.

The Federal Occupational Health Division of the Public Health Service provides occupational health consultations and services to federal agencies.

After DOE officials visited the Federal Occupational Health Division in Philadelphia last week, they decided the agency was not prepared to take over services at Hanford on Oct. 1.

Cleanup:

Senate Appropriations Committee approves request for \$15 million for Hanford single-shell tanks. **Page A7.**

FFTF:

Tennessee Valley Authority reactors to vie for tritium production. **Page A7.**

The agency hires private companies to do the work. But its existing contracts would not stretch to cover the amount and scope of work required at Hanford, said Walter Scott, senior technical adviser at DOE's environment, safety and health office and chairman of a panel evaluating the contract.

The Public Health Service estimated its costs at Hanford at \$7 million, but doesn't have any contractor that would be ready to take on the task when HEHF's contract expires in October, Scott said.

Also, none of its contractors is ready to handle some of the direct care required at Hanford, he said. That includes exams and screening of workers who could be exposed to hazardous materials and on-site first aid for minor matters such as cuts and allergies.

So far, the agency had given DOE an abbre-

viated first draft of a proposal for services at Hanford.

The agency was a latecomer to the proceedings, contacting the DOE after seeing a notice in late January announcing the upcoming request for proposals for health services at Hanford, Scott said.

DOE would be willing to reconsider the Public Health Service when the upcoming contract expires in five years, Scott said.

The proposal to turn health services over to the federal agency had created some concern among management and workers.

"A number of people didn't understand" the proposal, Scott said. "It came along quickly, and they were concerned."

But DOE still is set on changes in its contract for occupational medical services at Hanford, he said. Because of federal contract reform, the type of contract DOE has had in the past with HEHF is no longer an option, he said.

The first draft of the request for proposals issued last year showed reimbursement not for management and operation costs but on a fixed price. Scott said he could not comment on what would be in the final request for proposals until it is released.

He did say he expects DOE to spend less on occupational health and medical services at

Hanford under the new contract. Now DOE is spending about \$10 million a year — \$3 million more than the Public Health Service estimate.

Savings will come from a change in DOE's approach to medical monitoring for exposure to such substances as hazardous waste, lead or asbestos — Scott said.

For example, an employee who spends one day a year working around hazardous waste now likely would get a thorough occupational exam to ensure the exposure had not compromised his health, Scott said. But the Occupational Safety and Health Administration requires the occupational exam be given if a worker is exposed to hazardous waste for 30 days in a year.

We've had some "pretty healthy overmonitoring," Scott said.

HEHF will not necessarily be bidding on the new contract. It will wait to see what is in the request for proposals, said Sandra Matheson, HEHF president.

About a dozen companies came to an earlier public hearing on the proposed contract, and many of them have continued to inquire about it, Scott said.

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Hanford jobs rebound, February report shows

By Melissa O'Neil
Herald staff writer

Hanford actually had an increase in workers last month, according to the February employment report.

Department of Energy on-site contractors — "inside the fence" — employed 9,419 people last month. That was 117 more jobs since January but still 302 shy from Hanford employment a year ago.

The statistics were released Tuesday by the state Employment Security Department. Benton and Franklin county numbers are crunched by Dean Schau, the regional labor economist based in Pasco.

"This is the second month in a row that this important segment of the Tri-City economy has been a source of additional jobs, instead of the declines it has had since the second quarter of 1994," Schau said. He speculated that a lot of people have gone back to work at Hanford, perhaps as consultants, and aren't being reported the same way as before.

"Hanford — we just count them, we don't try to understand them," Schau quipped. "Enjoy the rebound while it lasts — it

may be very temporary."

The Hanford site's nuclear waste cleanup jobs now are classified by the state as environmental and research services, Schau said. Previously, the jobs were considered engineering and research service jobs. Hanford's research job count is relatively stable.

Hanford wasn't the only place hiring last month. Food processing showed a 200-job increase over the year. Construction jobs changed little during the year but climbed 100 since January.

The early springlike weather gets part of the credit for the construction activity, as nearly every city continues to see new houses. "It's tough to pour concrete in January," Schau said. Other projects add to the count, like the Pasco School District's new elementary schools, Twin City Foods plant in Pasco and industrial construction in north Richland.

But the biggest growth was in public education, which had 140 more workers last month than it did a year ago — reflecting continued increases in school enrollments. Most of those workers were

See Jobs, Page A2

Tennessee authority bids to make tritium at two civilian reactors

By The Associated Press and Herald staff

WASHINGTON — The Tennessee Valley Authority is vying for a contract that would make its facilities in Alabama and Tennessee the first civilian reactors in the United States to produce weapons material.

Officials said Tuesday that if the authority wins a Department of Energy technology competition, it will begin producing tritium, a key ingredient in nuclear bombs, at its reactors in the two states.

This is one of three tritium-production options DOE is considering.

The options are:

- Converting a civilian reactor to produce tritium. The major obstacle to this option is that it is currently illegal to use a civilian reactor for military purposes. Senate hearings are expected in April on whether this option should be granted an exemption.

- Building a linear accelerator at DOE's Savannah River site.

- Resurrecting Hanford's Fast Flux Test Facility as a backup or interim tritium source for one or both of the other options. The tritium mission is viewed as a short-term or backup mission to enable the FFTF to phase in a long-term medical isotope mission.

Meanwhile, in a briefing for top staff at the Nuclear Regulatory Commission, TVA officials said the unfinished Bellefonte Nuclear Plant near Scottsboro, Ala., and the Watts Bar plant near Spring City, Tenn., could be used to create tritium.

The twin reactor Sequoyah Nuclear Plant near Chattanooga, Tenn., also might be used temporarily for tritium production if construction of Bellefonte cannot be completed in time to meet the Energy Department's demands for the material, officials said.

No new tritium has been produced since the reactors at the government's Savannah River site in South Carolina were shut down in 1988. Because tritium decays at the

rate of 5.5 percent a year, U.S. officials say a new source is needed to keep existing nuclear weapons functional.

The Tennessee Valley Authority will have to receive approval from the regulatory commission to manufacture tritium at Watts Bar and to complete construction of Bellefonte. The authority is trying to convince the Energy Department to choose its reactors instead of building a new, more expensive linear accelerator at Savannah River.

Even if the linear accelerator wins out, authority and Energy Department officials told the Nuclear Regulatory Commission that they hope to use the Watts Bar reactor as a backup tritium source — which would keep it as a competitor for the FFTF proposal.

Jack Bailey, TVA's vice president for nuclear engineering, said the authority's proposal is "the best deal for the taxpayer."

The authority has estimated it will cost about \$2 billion to complete Bellefonte, and the price tag for a linear accelerator would be about \$4.5 billion. Under TVA's proposal, the Energy Department would help finance completion of Bellefonte, but the Tennessee authority would retain ownership of the plant and contract with the Energy Department to provide tritium.

Opponents contend the nation's military and civilian nuclear programs should not be mixed.

NRC officials declined to discuss that issue, citing a 1995 interagency agreement in which the Energy Department assumed full responsibility for deciding whether a civilian reactor should be used for military purposes.

"We just do the safety review like in any other reactor," said Jim Wilson, of the Nuclear Regulatory Commission.

Work on Bellefonte was suspended in 1988 with one unit 88 percent complete and a second 57 percent complete.

Energy Secretary Federico Peña is expected to award the contract in December.

Hazardous Hanford waste ends up at Richland landfill

By Chris Mulick
Herald staff writer

Richland officials are concerned that hazardous materials from Hanford continue to get by inspectors' eyes and into the city landfill.

Most recently, a small bottle of flammable material from Hanford's main waste analysis laboratory accidentally was deposited at the Richland landfill last week.

It was the sixth time in the past couple years improper substances from the Hanford site have been dumped there, said Roger Wright, Richland's engineering manager.

He fears other materials, including those that are more hazardous, also could get by Hanford and city inspectors.

"This is a breakdown in procedure," Wright said. "It could have been something far more hazardous. We take more risks by taking Hanford's garbage."

A glass bottle containing 3.8 ounces of methyl acetate came from Hanford's 222-S lab and was dumped at the landfill March 12 by workers from Fluor Daniel Hanford. Wright said the material doesn't pose a threat to human health or the environment.

"It's not an immediate threat," Wright said. "I would liken it to the risk of gasoline."

The sealed bottle was in a shipping package and was thrown into a garbage bin, said Craig Kuhlman, a spokesman for Fluor Daniel.

"We don't want any liquids of any kind to be deposited in a landfill," he said Wednesday night. "We take this very seriously."

Had the city been notified the day the bottle was dumped, city crews would have looked for it, Wright said. Garbage is put in a trash compacting machine after it's dumped, Wright said. The bottle likely shattered in the process as the machine is designed to break glass.

The liquid likely was absorbed by other garbage, Wright said. He just hopes he won't ever have to go digging for something more serious.

"There's obviously things we're not finding that could be more hazardous," he said. "If they hadn't caught it, we wouldn't have caught it."

Keith Taylor, a spokesman for the Department of Energy's Richland Operations Office, said Wright's concern is legitimate.

"We're going to have to revisit our conduct at various facilities to make sure waste packages are labeled correctly," he said. "We may have to increase training to make sure we're aware of that."

The 222-S lab is the same one that was fined \$90,000 last year by the state Department of Ecology for not fixing deficiencies found in 1996 involving storage, labeling, control and verification of wastes.

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Sub reactor headed upriver to Hanford

The reactor compartment of the decommissioned submarine, USS George Bancroft, left Puget Sound Naval Shipyard in Bremerton on Wednesday for the Columbia River and Hanford.

The trip is to last three days. The reactor compartment will be unloaded from its barge at a Port of Benton site near Hanford and will be hauled a disposal site in central Hanford.

N Reactor work to miss deadline of Tri-Party pact

By John Stang
Herald staff writer

Deactivation of Hanford's N Reactor and its adjacent support buildings could be delayed beyond agreed-on deadlines by up to four months.

The Department of Energy and its contractor for the work say the delay would mean missing a Tri-Party Agreement deadline for finishing the work by March 31.

And the cost of the overall project, begun in 1994, is expected to increase by \$5 million, rising from \$111 million to \$116 million.

DOE hopes to get the extension to July 31 from the overseers of the Tri-Party agreement — the state Department of Ecology and the federal Environmental Protection Agency. DOE is seeking the extension because it has found more contaminants than expected in the reactor's spent nuclear fuel basin.

The state agency does not believe DOE and Bechtel Hanford Inc. have adequately documented the need for the extension, and they haven't included guarantees that a revised timetable can be met, said ecology department spokeswoman Sheryl Hutchinson.

Talks are continuing.

Bechtel is in charge of deactivating the 100N Area, which includes N Reactor and 90 to 100 auxiliary buildings and facilities.

Deactivation consists of cleaning up most of the radioactive contamination and closing buildings.

Afterward, the site will be monitored for problems until "cocooning" begins sometime later. Then outlying buildings would be

demolished and the main reactor building demolished and sealed off.

Most of the work on outlying buildings is complete, said Bechtel and DOE officials.

The remaining hurdle is N Basin — which is two connecting indoor pools that once held spent nuclear fuel until it was transferred elsewhere.

The N Basin holds about 1 million gallons of water that is about 24 feet deep. Much of its bottom consists of deep cubicles, giving its floor a wafled appearance.

Radioactive sediment ranging from a thin layer to a few feet deep covers the bottom. Other radioactive debris and equipment, plus small broken-off bits of spent fuel, are scattered in the basin.

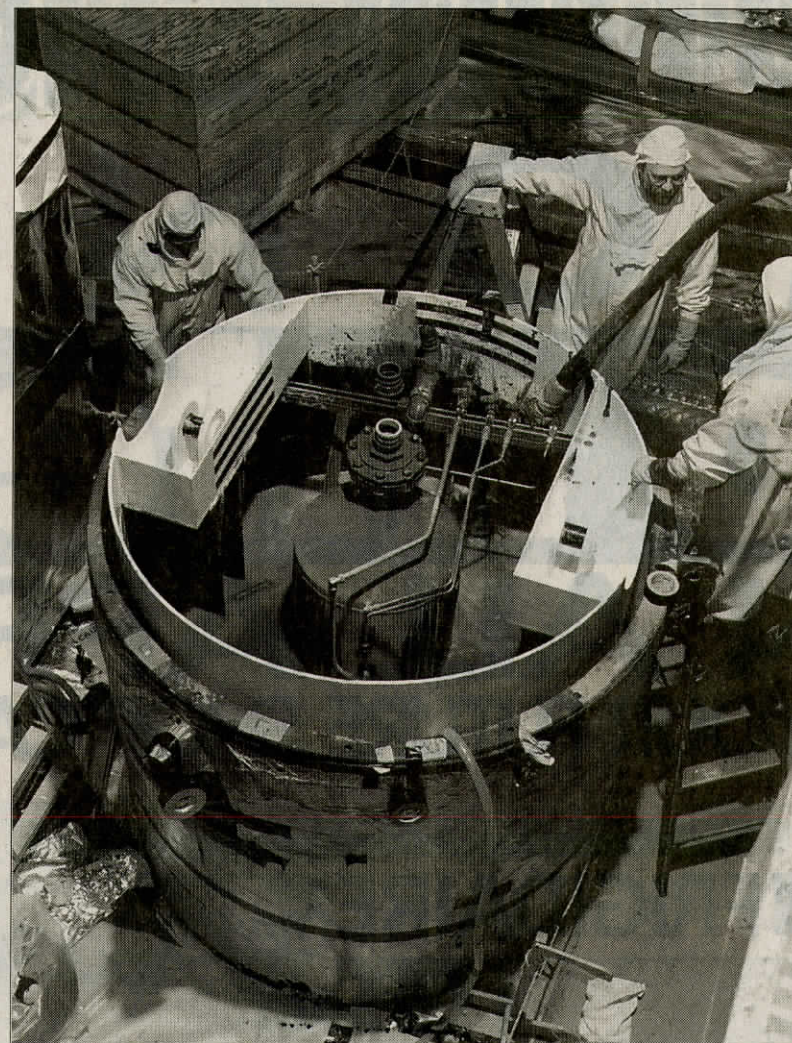
In August, tests showed the basin's walls and floor were more contaminated than expected, said Heather Trumble, DOE project manager for the work.

That means changes have to be worked out before mixing the removed sediment into grout — a cement-like substance — and shipping it to a central Hanford landfill, DOE and Bechtel officials said.

A second hurdle is shipping the basin water to Hanford's effluent treatment plant for purification, said Paul Pak, DOE senior project manager for the 100N Area.

Waste Management of Hanford operates that plant, which serves several projects.

While Bechtel believes it can guarantee a steady flow of tanker trucks from N Basin to the treatment plant, it still has to work out scheduling and prioritizing with



Courtesy of Bechtel Hanford Inc.

Employees at Hanford's N Basin area work with a filtering mechanism used on the contaminated water in the basin's pools. Bechtel and the Department of Energy believe a four-month extension is needed on the deadline for key milestone in N Reactor's cleanup.

Waste Management, said Pak and Tom Logan, Bechtel project manager for the 100N Area.

Logan is confident Bechtel can complete the deactivation by July 31. N Basin then would be dry and the contaminated sediment and equipment would be removed.

A fine is possible if the deactivation does not meet the Tri-Party Agreement deadline, but the state is not ready to consider what it will

do about the delay, Hutchinson said.

The state has been increasing pressure on DOE and its contractors to meet Tri-Party Agreement deadlines, considering fines and a lawsuit if some tank farm projects fall behind schedule.

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PNNL gets nearly \$5 million for research

By the Herald staff

The federal government has given \$2.12 million to Pacific Northwest National Laboratory in Richland for work on three industrial research projects, Battelle-Northwest announced Thursday.

Private companies plan to invest another \$2.69 million into the three projects.

Overall, the Department of Energy awarded almost \$12 million to five of its laboratories, including the money for work at PNNL.

Some of the money will pay for research into new material that would improve the performance of semiconductor chips.

PNNL is teamed with SEMATECH of Austin, Texas, on this \$1.5 million, three-year project.

DOE and SEMATECH each will foot \$750,000 of the bill.

The second project is aimed at developing computer software to simulate glass manufacturing processes and to improve the accuracy of tests.

This project has a \$1.46 million cost. It is a joint project by PNNL, the University of Colorado, the University of Minnesota, IBM and the Corning corporation.

DOE is to provide \$625,000, and IBM and Corning are to provide the rest.

The third research project will look at ways to improve gene detection technology, which would be used to detect microorganisms that could harm food supplies.

Battelle and Genometrix of Texas are partners in the \$1.85 million project. DOE is to provide \$750,000, and Genometrix is to provide the rest.

Last of Hanford's WWII-era steam plants closes

By John Stang

Herald staff writer

Hanford's last World War II-vintage steam plant has been closed to complete a switch to a series of small steam plants to heat buildings in the federal site's 200 and 300 Areas.

The bottom line is the Department of Energy expects to almost halve its monthly steam heating costs — ultimately saving about \$108 million over 25 years.

The savings come from Hanford privatizing its steam heat operations under a 25-year contract with Johnson Controls Inc. of Milwaukee, Wis.

On Saturday, the last of Hanford's three

World War II-vintage steam plants was shut down.

"(Two of) these plants operated almost nonstop for 55 years," said Mike Yates, executive vice president of Fluor Daniel Hanford, at a press conference Thursday at the 300 Area.

For the past year, Johnson Controls has been setting up 42 boilers in 28 small buildings in Hanford's 200 and 300 Areas to replace the huge, antiquated and less-efficient plants in those two areas.

One old 200 Area plant was closed in 1995, while a second old 200 Area plant was shut down in January. The 300 Area plant was closed Saturday.

Under its contract, Johnson Controls paid the \$32 million construction costs upfront and will be paid by DOE as it produces steam heat.

With the old plants, DOE spent about \$1 million a month on steam heating, said DOE's Hanford Manager John Wagoner. Now DOE expects to pay Johnson Controls about \$555,000 a month, with the first payment probably in April.

Johnson Controls' construction costs are included in the monthly payments. Those capital investments are expected to be paid off in 10 years, which then would reduce DOE's monthly payments.

"This is the largest energy savings perfor-

mance contract by the federal government," Wagoner said.

The privatization contract accounted for some of the 100 Hanford workers from several programs who received layoff notices in January.

About 100 Hanford workers — managers from DynCorp Tri-Cities Services Inc. and union employees from Fluor Daniel Hanford — ran the last two old plants.

The new plants require only a few more than a dozen employees.

Wagoner and Tom Krueger, Johnson Controls' vice president for government business, said the new plants present several improvements over the old, including:

■ They can heat the same number of buildings with 30 percent less energy.

■ They trim 577 tons a year of discharges into the air of "greenhouse emissions," such as carbon monoxide and sulfur oxides. Flying ash also has been eliminated.

■ Hanford no longer needs its railroad to haul coal to the 200 Area plant. This increases the likelihood of DOE declaring the railroad as "excess" property, which means it could be available for commercial use.

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Fluor Daniel Hanford official leaving post

Larrie Trent, Fluor Daniel Hanford's vice president for environment, safety and health, is leaving his post to become director of safety for BWX Technologies Inc.

Trent will be succeeded by Robert Shoup, senior vice president for operations at Tetra Tech NUS, in Albuquerque, N.M.

Fluor Hanford President Hank Hatch praised Trent for leading efforts that resulted in trimming Hanford's workplace injury rate by 60 percent since Fluor took over in late 1996.

Shoup has a doctorate in nuclear physics from Florida State University and 26 years of experience in managing environmental, safety and health programs. He will take over his new post in April.

Federal report says DOE too slow in acting on vadose contamination

By the New York Times News Service and the Herald staff

The Department of Energy received warnings going back to 1989 that it needed to pay closer attention to how wastes seep through the ground below Hanford, according to a General Accounting Office report expected to be released today.

The GAO study was requested by U.S. Ron Wyden, D-Oregon, and Sen. John Glenn, D-Ohio.

The report concludes DOE has been slow to recognize gaps in Hanford's knowledge of the "vadose zone" beneath Hanford's 177 underground radioactive waste tanks, according to the New York Times.

The vadose zone is the area between the surface and aquifer.

The tanks hold 54 million gallons of waste of which about 1 million gallons have leaked.

A top DOE official acknowledges the department erred in studying the vadose zone.

"There has not been enough science for

vadose-zone assessment," said Ernest Moniz, the undersecretary of energy, told the Times. Moniz added: "There's no doubt there was little enthusiasm for this."

However, Moniz did not place blame. "I did not attempt any human archaeology" to trace the source of the problem," he said. But he added "the vadose zone is intellectually virgin territory."

The GAO — Congress's investigative arm — says these gaps in knowledge threaten Hanford's cleanup.

For example, the soil at the surface has become contaminated, so engineers decided to spread clean gravel on top to reduce the exposure of workers.

But the gravel increased the flow of rainwater through the contaminated dirt, thus washing radioactivity toward the Columbia River more quickly, experts say.

Without the gravel, surface dirt or plants might have absorbed the water and allowed it to evaporate without percolating through the soil.

Glenn said that six years ago he urged

more vigorous monitoring of contamination through the soil and the result was only more promises.

"After all this inexcusable delay, continued failure to plan and implement an assessment program will raise serious questions about whether DOE should remain in charge of this program," he said.

Wyden said: "(DOE's) official story was that contamination stopped a few feet beneath the tanks, and even when they got samples from the bore holes drilled near the tanks, that showed contamination at much deeper levels, they argued the contamination could have been pushed down by the drilling."

Suzanne Dahl, the state ecology department's tank waste project manager, said DOE's position in part was just wishful thinking.

"It was a little bit of burying their heads in the sand and hoping it wouldn't get there, hoping they wouldn't have to deal with it yet," she said.

The state and environmental groups

argued for a few years that some of Hanford's tank wastes had reached the aquifer.

Local DOE officials confirmed the presence of tank wastes in the ground water in November.

But charting the vadose zone beneath the tank farms is just one piece in a hazy, complicated puzzle of ground water, vadose zone and cleanup programs DOE and other agencies say are not well coordinated.

So far this year, DOE has:

■ Ordered Bechtel Hanford Inc. to come up with a master plan by October to coordinate all these separate programs to close the knowledge gaps and to stop contaminants heading toward the Columbia River.

■ Ordered the expansion of a technical expert panel that has been dealing with Hanford's SX Tank Farm and has been critical of Hanford's vadose zone studies.

The panel is supposed to increase in size and begin reviewing other tank farm issues and Bechtel's efforts to produce a master plan.

Fluor, DynCorp to cut \$60 million in Hanford costs

By John Stang

Herald staff writer

A plan to trim \$60 million in Hanford infrastructure costs over five years recently was agreed upon by Fluor Daniel Hanford and DynCorp Tri-Cities Services Inc.

This is part of the Fluor team's efforts to trim indirect costs on the site to shift more money to cleanup.

Indirect costs include overhead plus equipment and facilities shared by several Hanford companies. Many of those programs are handled by DynCorp, a Fluor subcontractor.

Hanford has been criticized for high indirect costs.

The Fluor team's indirect cost total of \$298 million in fiscal 1997 is supposed to be cut to \$260 million in fiscal 1998 and to \$253 million in fiscal 1999.

Fluor and DynCorp believe efforts being considered in 1998 could translate to \$10 million annually in savings.

Overall, the infrastructure changes that DynCorp and Fluor are looking at will include shrinking inventories of vehicles and equipment, demolishing some old facilities, possibly vacating other facilities and possibly subcontracting some services.

Fluor and DynCorp will study whether some services would be done cheaper and more efficiently if kept in-house or if some

operations should be privatized or subcontracted out, said Tom Harper, Fluor's director for infrastructure, and Bob Frix, DynCorp's general manager.

Currently, DynCorp is studying whether its site fabrications services department should be kept in-house or somehow spun off to function as a separate business with Hanford as a client while it seeks other customers.

The site fabrication services consists of two 200 Area machine shops that make metal parts and components for various Hanford projects.

Other DynCorp sections to be studied along the same lines in 1998 include three 300 Area

labs that handle calibrating equipment, non-destructive examinations and engineering functions.

Meanwhile, DynCorp is considering moving out of most of the buildings in Hanford's 1100 Area, which the Department of Energy expects to transfer to the Port of Benton sometime this year.

And several buildings and huts in the 200 and 300 areas — mostly used for offices — are tabbed for demolition, but the project lacks the funds to follow through, Frix and Harper said.

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Backlash feared from GAO report on Hanford wastes

By John Stang

Herald staff writer

A new General Accounting Office report that criticized Hanford's subterranean waste studies contained no surprises — at least to Northwesterners.

But it's uncertain how the report will influence Congress, where members don't keep close watch on Hanford and are more likely to read about the site's problems in the New York Times or the Washington Post.

The vadose zone is the underground area below the surface and above the water table.

Last year, U.S. Sens. John Glenn, D-Ohio, and Ron Wyden, D-Ore., requested that the GAO — the investigative arm of Congress — look at the effectiveness of Hanford studies

on how wastes seeping through the vadose zone to the ground water and then to the Columbia River.

The GAO report was released Monday.

It concluded:

■ DOE has given vadose zone studies too low of a priority.

■ DOE has been too slow in adequately studying the matter and accepting outside advice.

■ Hanford's ground water and vadose zone programs are not coordinated well.

DOE agrees with the GAO's conclusions and already had fix-it measures under way several weeks ago.

The biggest fix-it effort is Bechtel Hanford Inc.'s work on a master plan to coordinate all of the vadose zone and aquifer study and remediation programs. That

plan is due in October.

The staffs of Rep. Doc Hastings, R-Wash., Sen. Patty Murray, D-Wash., and Sen. Slade Gorton, R-Wash., still are looking over the GAO report. But they noted the report contained no surprises.

The report could be a major influence on congressional attitudes toward appropriating money to Hanford, the staffers said.

The unknown factor is whether the report will help or hinder DOE efforts to get money for Hanford out of Congress, said Gorton press aide Cynthia Bergman.

However, Hastings' staff believes the report will hurt DOE's chances for Congress to fully fund DOE cleanup budget requests.

And his staff said Hastings is concerned about how increased emphasis on the

vadose zone will affect funding for other Hanford programs, especially pumping wastes from Hanford's single-shell tanks — a major regional concern and a major DOE legal obligation.

Adding to this concern is that DOE does not expect to get any budget increases from Congress, according to Hastings' staff.

Tom Woods, a technical adviser on Hanford matters for the Yakama Indian Nation, echoed the concern that Congress is unlikely to appropriate more money to Hanford.

"Right now, the funding is so low that DOE can't stay in compliance" with cleanup agreements with the state and the federal Environmental Protection Agency, Woods said.

Meanwhile, he contended DOE's and

Bechtel's efforts to draw up a master plan will leave out a vital piece.

Woods noted that planning efforts look at subterranean matters but stop at the river's edge — even though the contaminants enter the river.

Studies on the effects of the contaminants in the river need to be meshed in with the master plan, Woods argued. He noted other tribes, regulatory agencies and Hanford Advisory Board members also are concerned about this.

He noted Hanford has taken a preliminary look at the potential health effects. He argued this should be a springboard for putting together a more comprehensive master plan than Bechtel is preparing.

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DOE blasted in Hanford waste report

By John Stang

Herald staff writer

The Department of Energy has not invested enough money or effort into its studies on how Hanford's wastes seep through the ground, a General Accounting Office report concluded Monday.

And at least two U.S. senators aren't happy.

"After all this inexcusable delay, continued failure to plan and implement an assessment program will raise serious questions about whether DOE should remain in charge of this program," said U.S. Sen. John Glenn, D-Ohio, in a written statement.

The GAO released its report Monday on Hanford's "vadose zone" programs. The vadose zone is the subterranean area between

the surface and the aquifer.

Sen. Glenn and U.S. Sen. Ron Wyden, D-Ore., requested last year that the GAO — Congress's investigative arm — look into the effectiveness of Hanford's vadose zone program.

"This report clearly shows that DOE has been sticking its head in the contaminated sand and ignoring the growing body of scientific evidence that leakage ... presents a major problem that could threaten to bring nuclear contamination into the Columbia River watershed," Sen. Wyden told The Associated Press.

Both senators are longtime critics of Hanford's tank farms program, which deals with 177 underground tanks holding 54 million gallons of radioactive waste.

At least 67 tanks are suspected of leaking. Wastes from the tanks and numerous trenches and cribs have seeped to the aquifer to slowly creep toward the Columbia River.

According to the GAO report:

■ DOE has given vadose zone studies a low priority for years. That has led to an incomplete and sometimes erroneous picture of how wastes seep toward the aquifer.

The best-known example is DOE assuming leaked tank wastes had not reached the ground water — an assumption it formally abandoned in November.

■ DOE has been slow in accepting outside advice that its vadose zone studies need an overhaul.

Monday's report cited a 1989 GAO

See **Waste**, Page A2

B&W Hanford Co. president Heer leaving

By John Stang

Herald staff writer

Bill Heer, president of B&W Hanford Co. is taking over another B&W project Wednesday in Pennsylvania.

Meanwhile, Arthur Clark, a retired Navy rear admiral, will replace Heer as head of B&W Hanford, which is one of Fluor Daniel Hanford's major subcontractors employing roughly 700 people.

B&W Hanford is in charge of decontaminating, closing and taking care of several Hanford facilities — including the Plutonium Finishing Plant, the Plutonium Uranium Extraction Plant, B Plant, the Fast Flux Test Facility, and the 324 and 327 lab buildings.

Heer, 63, has been B&W Hanford's president since it was formed as a Fluor Hanford subcontractor in 1996.

He will become general manager of B&W Services Inc.'s Parks Environmental Restoration Project, which is a former plutonium and uranium fuel fabrication site being cleaned up and closed about 30 miles northeast of Pittsburgh.

In a press release, John Fees, president of B&W Services Inc. said, "Bill Heer has done an outstanding job in directing the B&W Hanford team in carrying out the mission of the (Department of Energy). His leadership and integrity to get the job done right, with safety first, has served Hanford well."

Heer pointed to high marks that B&W Hanford has received for maintaining the FFTF, getting

the PUREX and B Plants deactivation projects ahead of schedule and successfully getting beginning the decontamination of the 324 and 327 labs.

B&W Hanford's major setback has been the PFP, which was the site of a high-profile chemical tank explosion in 1997.

Heer praised the skill and hard work of the B&W Hanford employees, and said he and his wife enjoyed the local community.

Meanwhile, Clark recently finished a 35-year Navy career. He served two combat tours in Vietnam, and has been commander of the Puget Sound Naval Shipyard and director of fleet maintenance for the Navy's Atlantic Fleet.

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Senate committee study could affect FFTF restart

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Members of the Senate Armed Service Committee, citing concerns over international nuclear weapons proliferation, expressed reservations Thursday about the United States using a commercial nuclear reactor to produce tritium for atomic weapons.

Under questioning from Sen. Strom Thurmond, R-S.C., Energy Secretary Federico Peña told the committee his staff is conducting an interdepartmental study with the Defense and State departments. It should be completed next month, Peña said.

"It's a full examination of the

issue," he said, adding Congress ordered a review last year.

The study's outcome could have implications for the future of the

Yucca Mountain:

Proposed nuclear waste dump site may be unsafe.

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Fast Flux Test Facility at Hanford, a mothballed research reactor that also could produce tritium — the radioactive gas used to

boost the power of nuclear weapons.

DOE is expected to announce late this year whether to use a commercial light-water reactor, most likely one owned by the Tennessee Valley Authority, or build a new acceler-

ator at its Savannah River complex in South Carolina to produce tritium.

FFTF could be used as a temporary tritium producer until a commercial reactor is converted or an accelerator is completed. Backers of using FFTF have said that if conversion of a civilian reactor is blocked because of nuclear nonproliferation issues, restarting FFTF would make even more sense because it would be needed while the accelerator was built.

In his formal testimony, Peña acknowledged only that FFTF was being kept on standby "until a decision is made whether it should play any role in a tritium supply strategy."

He also said the department "foresees no technical difficulties"

in using a light-water reactor to produce tritium and that the accelerator alternative had made "impressive gains" over the past year.

But Thurmond and Sen. John Glenn, D-Ohio, expressed concerns about nuclear nonproliferation issues.

"I am concerned about the nonproliferation aspects of going to a light-water reactor and what it means to other countries," said Glenn, adding the United States has continually urged other countries not to use such reactors to produce nuclear weapons materials. "This could open up a loophole for other countries, which could come back and bite us."

Peña said some analysts believe tritium should not be classified as a

nuclear material and the TVA reactors might not be, in the strictest sense, commercial reactors.

Another committee member, Sen. Carl Levin, D-Mich., asked Peña whether ratification of the Strategic Arms Reduction Treaty II (START II) by the Russian Duma and negotiation of START III would significantly reduce the need for tritium.

Peña said ratification of START II by the Russians wouldn't result in a significant drop in tritium demand, and it was too early to tell what effect START III negotiations would have.

Glenn also briefly questioned Peña about a General Accounting Office report released earlier this week that blasted DOE for its handling of contamination of the so-

called vadose zone underneath Hanford's underground nuclear waste storage tanks. Leaks from the tanks have seeped through the vadose zone — the subterranean area between the surface and ground water — and into the ground water, which eventually flows into the Columbia River.

Peña again said a new team had been assembled, including independent experts, to assess and implement a new vadose zone program at Hanford.

"My highest priority is to keep this pollution from entering the river," he said.

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Hanford gets more time to clean N Basin

By John Stang

Herald staff writer

Hanford workers will be allowed four more months to clean up the N Basin area without contractors facing state fines.

Because more contamination was found in the area's radioactive pools, the state gave Hanford an extension on its Tri-Party Agreement deadline to deactivate the N Basin and the rest of the N Reactor area.

The Washington Department of Ecology agreed this week to Hanford's request to extend the deadline from April 1 to July 31.

Bechtel Hanford Inc. is in charge of deactivating the 100N Area, which includes N Reactor and 90 to 100 auxiliary buildings and facilities.

Deactivation consists of cleaning up most of the radioactive contamination and closing buildings.

Afterward, the site will be monitored for problems until "cocooning" begins sometime later. Then, outlying buildings would be demolished and the main reactor building demolished and sealed off.

However, Bechtel and the Department of Energy found more contamination than expected in the N Basin — which is two connecting indoor pools that once held spent nuclear fuel until it was transferred elsewhere.

That prompted Bechtel and DOE to request the state ecology department to grant a four-month extension on the deadline, which was set by the Tri-Party Agreement, the pact governing Hanford's cleanup.

"We think its doable, and we can make that mark. ... We're not happy having to continue it out. We're putting every effort into completing it by that date," said Mike Hughes, Bechtel vice president for operations.

The state granted the extension because the extra contamination expanded the scope of the project, stated the ecology department's consent order.

The extension comes amidst the state's otherwise increasing pressure on DOE and its contractors to meet Tri-Party Agreement deadlines.

The state has refused to grant Hanford's requests for deadline extensions on pumping radioactive wastes from Hanford's older single-shell tanks into safer double-shell tanks.

DOE missed a Sept. 30 deadline to begin pumping six tanks, and it appears likely to miss Tuesday's deadline to begin pumping eight more.

DOE requested extensions on both deadlines, and the state turned down both. The state is considering whether it will fine DOE for the missed deadlines.

Meanwhile, Gov. Gary Locke had added more pressure by threatening to sue DOE if more major delays occur.

Sheryl Hutchinson, Ecology Department spokeswoman, said the N Basin extension is not a change in the state's overall stance.

"We've indicated to DOE that where it can make a good case for a delay, when we do see progress occurring, we are willing to consider a new schedule. Our concerns mostly focus on projects where nothing is getting done without a good reason," Hutchinson said.

"This (N Basin) project is proceeding. We looked at it, and it seems to be making good progress," she said.

The state believes the July 31 deadline can be met, she said.

The N Basin holds about 1 million gallons of water that is about 24 feet deep.

Radioactive sediment ranging from a thin layer to a few feet deep covers the bottom. Other radioactive debris and equipment, plus small broken-off bits of spent fuel, are scattered in the basin.

In August, tests showed the basin's walls and floor were more contaminated than expected.

That means changes must be worked out before mixing the removed sediment into grout — a cementlike substance — and shipping it to a central Hanford landfill.

The cost of the overall N Reactor Area deactivation project, begun in 1994, is expected to increase by \$5 million, rising from \$111 million to \$116 million.

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N Basin worker injured by contaminated sliver

By John Stang

Herald staff writer

A contaminated metal sliver punctured the hand of a Bechtel Hanford Inc. worker in the N Basin area Wednesday.

He was treated at a special facility next to Kadlec Medical Center designed to handle contaminated patients, and he returned to work Thursday, said Mike Hughes, Bechtel's vice president for operations.

The N Basin is part of the N Reactor complex. The basin consists of two big connecting indoor pools filled with water that once held spent nuclear fuel until it was transferred elsewhere.

Radioactive sediment ranging from a thin layer to a few feet deep covers the bottom. Other radioactive debris and equipment, plus small broken-off bits of spent fuel, are scattered in the basin.

Workers wear protective clothing

in the basin area to safeguard them from radioactive contamination.

On Wednesday, a worker was leaving when he noticed a bit of blood on his cotton glove liner. He did not realize until then that he had a wound, Hughes said.

Health workers checked him and found a small puncture wound about the size of a pen point in his palm that showed radioactive contamination, Hughes said.

The worker was taken to the Hanford Environmental Health Foundation to be checked out, then to a special facility near Kadlec's main building. A small contaminated metal sliver was found in his palm and was removed.

The wound was cleaned out, and the radiation readings on the worker's hand fell below detectable levels, Hughes said.

Bechtel speculates the sliver came from the rough edge of a metal grating being removed from the N Basin.

Hanford contractors eye 'eight-nine' shifts

By the Herald staff

The number of employees getting alternate Fridays off will likely increase in April for the seven Fluor Daniel Hanford team companies.

The presidents of the seven companies are evaluating how many of their employees will be shifted to the so-called "eight-nines" shift beginning April 20.

In an "eight-nines" shift over two weeks, an employee works eight 9-hour days, one 8-hour day and gets every other Friday off.

About 900 Fluor employees currently work "eight-nines" shifts — mostly in the 100 and 200 Areas.

However, Fluor Hanford President Hank Hatch said Fluor expects employees' morale and productivity to improve and absenteeism to drop with much of the site's workers switching to the new setup.

"These expanded schedules will give each of us an opportunity to put a little more balance in our lives and provide more of us with an additional day to do things that are important to us," Hatch said in a news release.

However, business and production needs will determine which employees and sections will go to an "eight-nines" shift and which will continue under traditional hours, according to Fluor.

The heads of Fluor and its six main subcontractors will make those determinations.

The total number of hours worked on the site will remain the same, according to Fluor.

Currently those employees now working "eight-nines" shifts have staggered Fridays off. Under the new arrangement, all the "eight-nines" employees will have the same Fridays off.

PFP woes mean record fine for Fluor Daniel

By John Stang

Herald staff writer

Troubles at Hanford's Plutonium Finishing Plant have led the Department of Energy to propose a \$140,625 fine for Fluor Daniel, thought to be the biggest fine ever against a Hanford contractor.

Fluor Daniel Hanford has 30 days to challenge the fine. DOE sent a preliminary notice of violation to Fluor Daniel Hanford on Thursday.

"We're reviewing it and have not made a decision on an appeal or a request for a reduction (in the fine)," said Fluor Daniel Hanford President Hank Hatch.

This is the biggest proposed DOE fine against a contractor that DOE's Hanford Manager John Wagoner can remember.

The bulk of the proposed fine — \$112,500 — is for poor handling of plutonium within the PFP.

And the rest — \$28,125 — covers emergency response problems during last May's chemical tank explosion at the PFP that exposed 10 workers to chemical fumes.

The proposed fine covers tasks handled by two Fluor subcontractors — B&W Hanford Co. which manages the PFP and Dyn-Corp Tri-Cities Services Inc. which manages fire and emergency services.

Wagoner said B&W Protec, which manages Hanford's security force, also could share some responsibility.

"There will be an appropriate distribution of the fine" among Fluor and the subcontractors, Hatch said. How that would be divided has not been addressed.

The bulk of the proposed fine focuses on problems on moving plutonium around PFP. Most of the PFP's four metric tons of scrap plutonium is in a vault — with the rest scattered among the

DOE criticizes Fluor team for K Basins' cleanup woes

By John Stang

Herald staff writer

Hanford's chief contractor and one of its key lieutenants are foundering in their attempts to manage the cleanup of spent nuclear fuel stored in the K Basins.

That's the assessment contained in a Department of Energy letter sent last week to Fluor Daniel Hanford and DE&S Hanford and obtained Tuesday by the Herald.

The DOE letter to Fluor President Hank Hatch detailed a long list of problems in the troubled effort to move 2,300 tons of highly radioactive fuel away from the basins, which are a few hundred yards from the Columbia River.

The list includes poor teamwork, an inability to find the causes of problems and fix them, a reluctance to keep to a tight budget and problems in nailing down timetables and cost estimates.

"The project should be perceived as having a strong sense of urgency, but it does not. Delays occur, commitments are missed, but accountability does not appear to drive the management response," wrote the letter's author, Charles Hansen, DOE's assistant manager for waste management.

An appendix to DOE's letter says: "(DOE) is concerned that (the Fluor team's) work on the (spent fuel project) is obviously strained and that the future

of the (Fluor team) appears uncertain."

Fluor spokesman Craig Kuhlman said the Fluor team is studying DOE's letter and "will respond to it in due course."

Fluor does not want to discuss the letter publicly in detail at this time, Kuhlman said.

He said the K Basins project is a high priority for Fluor, and it is committed to making it succeed.

"The spent nuclear fuel project has a high degree of difficulty compared with the other projects. We're not going to move the spent fuel until it is safe to do so," he said.

The K Basins are two huge, indoor, water-filled pools holding the spent fuel. One basin has leaked twice in the past.

Hanford's plan is to remove the radioactive and often corroded fuel canisters from the basins, package and process them, and move them to a huge underground vault in central Hanford.

In the last several months, the project's completion date has been extended 19 months from 2001 to 2003. And the project's lifetime budget estimate has grown by \$274 million, increasing from \$814 million to about \$1.09 billion.

One reason for the delay and budget increase is that the former lead

See Basins, Page A2

TRO

DOE announces new Hanford posts

By the Herald staff

Six people were appointed recently to fill new posts at the Department of Energy's Hanford operation, DOE announced this week.

The six are:

■ Jay Augustenborg, who is deputy assistant manager for waste management. He will help the assistant manager in day-to-day matters on waste management, spent nuclear fuel, nuclear facility operations and transportation of hazardous wastes.

■ Beth Bilson, who is director of the waste programs division. She manages solid waste programs, analytic services, liquid effluent programs, and the coordination of the Navy reactor compartment disposal program.

■ Chris Bosted, who is director of the waste operations division. He is responsible for spent fuel, analytic services, plus solid and liquid waste and waste reduction programs.

■ Jim Mecca, who is deputy assis-



Augustenborg



Bilson



Bosted



Mecca

tant manager for facilities transition. He helps manage daily operations for deactivating facilities, landlord and infrastructure matters, and dealing with special nuclear materials.

■ Shiv Seth, who is senior technical nuclear safety adviser and senior liaison to the Defense Nuclear Facilities Safety Board.

He handles DOE's relations with the defense board.

■ Bob Tibbatts, who is budget director and deputy chief financial officer.



Seth



Tibbatts

He is responsible for forming, justifying and executing budgets for all funds appropriated to Hanford.

Glassification plans pass DOE safety review

By the Herald staff

The safety plans for two proposed Hanford tank waste glassification plants received conditional approval recently from a special Department of Energy regulatory office.

That means the safety plans are generally satisfactory if the corporate teams take care of weaknesses noted in the review, said Clark Gibbs, director of DOE's Office of Radiological, Nuclear and Process Safety Regulation at Hanford.

This office was set up to provide safety oversight for the glassification projects being tackled by teams led by BNFL Inc. and Lockheed Martin Advanced Environmental Services.

The two teams want to build plants that can convert 6 percent to 13 percent of the 54 million gallons of radioactive wastes in central Hanford's underground tanks into glass over the next several years.

The two teams submitted their financial and technical plans to

DOE in January. DOE hopes to decide by late spring whether to give the green light to both, one or neither of the teams.

The safety review by Gibbs' section was a major milestone that each team needed to pass before approval.

Hanford's proposed 2000 budget to fall short

By John Stang

Herald staff writer

The proposed Hanford cleanup budget for fiscal 2000 is \$124 million below what's needed to meet legal obligations, says the Department of Energy's Richland office.

The Office of Management and Budget has told DOE the cleanup budget should be \$1.07 billion for the year that starts Oct. 1, 1999.

"Unless we convince the OMB to adjust the target upward ..., the year 2000 is going to be a tight one," DOE Hanford Manager John Wagoner told the Hanford Advisory Board when it met Thursday in Kennewick.

OMB figures show Hanford's prospective cleanup budgets shrinking from fiscal 1999 to fiscal 2000. The OMB cleanup target for

2000 is \$44 million less than the \$1.11 billion requested from Congress for 1999.

DOE is required to request enough money from Congress to meet its cleanup obligations.

But Congress wants a balanced budget, and the OMB has to figure out how to craft such a budget.

"We feel that we keep falling into a ditch prior to Congress called the OMB," said board member Chuck Potter, representing the Benton-Franklin Regional Council.

Board member Pam Brown, representing Richland, complained that cleanup pacts don't carry much weight with Congress.

K Basins:

Fluor Daniel stands by its K Basins subcontractor. **Page A7.**

"Congress really doesn't care much about these compliance agreements. They didn't sign them," she said.

Board member Tom Woods, a technical adviser to the Yakama Indian Nation, contends the threat of a potential disaster might convince Congress to appropriate more money. He argued that more studies on how Hanford's polluted aquifer will affect the Columbia River possibly would boost Hanford's case in Washington, D.C.

In 1998, the cleanup budget is expected to fall \$42 million short of obligations. With that gap growing to \$124 million by 2000, board members worry the gap will mean greater delays and shortfalls in the 21st century.

The \$1.07 billion cleanup figure for 2000 so far only is a target.

This means DOE's Richland office has to figure out by April 15 what projects should be shelved if the budget is \$1.07 billion.

The Washington state Department of Ecology and U.S. Environmental Protection Agency sent Wagoner a letter outlining their fears on what might be cut.

The letter listed probable cuts that include some preparations to send radioactive tank wastes to glassification plants, pumping single-shell waste tanks, speeding the cleanup of the Plutonium Finishing Plant and sealing off defunct reactors.

Wagoner noted the state has increased pressure to pump out the single-shell tanks, which is giving it higher priority.

The board plans to approve a memo to DOE today that will note:

■ DOE and OMB are legally required to request money to meet all legal cleanup obligations.

■ DOE's long-term plan to request level funding for cleanup is inadequate because inflation will eat into the money. The board calculated that 2 percent annual inflation would translate to a \$1 billion loss by 2006.

■ Noncleanup projects should not be included in the cleanup budget. The board believes DOE should use noncleanup funds to pay for keeping the Fast Flux Test Facility on standby, safeguarding stored plutonium and fighting down-winder lawsuits.

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

House panel leader objects to Fluor tab for K Basins hearing

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The chairman of a House subcommittee fired off a stinging letter after learning of a request from Fluor Daniel for \$329,000 to prepare for possible congressional hearings on cost overruns and schedule delays in cleaning up Hanford's K Basins.

In a letter to Energy Secretary Federico Peña released to reporters Friday, Rep. Joe Barton, R-Texas, chairman of the oversight and investigation subcommittee of the House Commerce Committee, also took the Department of Energy to task for not dismissing the request out of hand.

"It is difficult to understand why (Fluor Daniel Hanford), after 18 months at Hanford and several reviews and analysis of their performance on the (Spent Nuclear Fuels) project, would need a task force of managers and engineers to

'prepare background information' regarding (Fluor's) activities, at the taxpayers' expense," Barton wrote.

The letter, which also was signed by the chairman of the full Commerce Committee, Rep. Tom Bliley, R-Va., said Fluor Daniel requested the \$329,000 to form

Delay:

K Basins cleanup could slip further. **Page A7.**

a special task group to prepare for the hearings and respond to the subcommittee's request for documents.

Barton said Fluor Daniel estimated the task force required 1,900 total hours of labor to complete its work, including \$140,000 for managers and engineers at Pacific Northwest National Laboratory at a rate of \$120 an hour.

"We are writing to express our strong concerns about the

See **Basins**, Page A2

METRO/NORTHWEST

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Work on K Basins likely to dip into budget for 1999

By John Stang

Herald staff writer

Some of Hanford's fiscal 1998's spent nuclear fuel removal work might be delayed until fiscal 1999 — potentially causing the project's timetable to slip even further.

Meanwhile, the Hanford Advisory Board wants to closely follow how the Department of Energy fixes the cost increases and delays that have plagued the K Basins project.

The K Basins are two indoor

pools near the Columbia River that hold 2,300 tons of spent nuclear fuel.

Hanford's plan is to remove the fuel, process and package it and move it to a huge underground vault in central Hanford.

In past months, the completion date has been delayed 19 months to 2003. And the lifetime cost estimate has grown by \$274 million — from \$814 million to \$1.09 billion.

It is possible more time could be

added to the 19-month delay, said Charles Hansen, DOE's assistant manager for waste management.

Some costs have exceeded engineering and design estimates for 1998, he said.

That translates to 1998's spent fuel project budget of \$152 million being about \$14.5 million short.

Consequently, some 1998 work will be delayed until 1999, when extra money will be available, said Nancy Williams. Fluor's spent fuel

project director.

The delayed work involves two structures — the vault and the building on top of it, and a facility where the fuel will be vacuum dried before being sent to the vault.

Much of the construction work will continue this year on those two buildings, officials said.

But delays will occur on some of the processing equipment in the vacuuming facility and on the huge tubes that will hold the fuel in the

underground vault.

Fluor, DE&S and DOE have been wrestling with a timetable they don't believe they'll make, Hansen and Williams said.

DOE and the contractors hope to soon pin down an accurate schedule and cost estimate.

They want to take that revised schedule into upcoming Tri-Party Agreement negotiations to settle on legal deadlines for the project.

Those talks are to begin April 15.

Williams and Hansen declined to say what the extra costs and delays could be — saying the figures still are being hammered out.

Meanwhile, the Hanford Advisory Board won't recommend that DOE and Fluor consider replacing DE&S Hanford if the K Basins project's timetables and costs continue to be fuzzy.

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

Suspected uranium shavings stop excavation near 300 Area

By John Stang
Herald staff writer

Bechtel Hanford Inc. suspects uranium shavings might be inside oil-filled barrels recently dug up just north of Hanford's 300 Area.

That suspicion has led Bechtel to stop the excavation work until the 350 barrels can be analyzed.

If uranium is confirmed to be in the barrels, experts will be brought in to figure out how to deal with them, said Jeff James, Bechtel task leader for the project.

There is a possibility that up to 1,500 barrels — including the 350 already dug up — could have been buried at the disposal site between 1955 and 1961, he said.

Bechtel had been excavating the site and plans eventually to haul items and debris to a central Hanford landfill that contains radioactive rubble and soil.

Bechtel expected to find unexpected items in the 300 Area burial site, James said.

About three weeks ago, Bechtel began digging out the oil-filled barrels, which

have some type of metal shavings in them. Some barrels leaked, which resulted in Bechtel putting them into larger barrels.

Meanwhile, Bechtel looked up historical records and interviewed employees to get a better idea about the barrels' origins and contents.

On Thursday, a retired Hanford worker told Bechtel he remembers working in a lab where uranium shavings were put into oil-filled barrels and sent somewhere.

That — coupled with radioactive readings from some barrels — prompted Bechtel to keep the barrels isolated until they can be checked further, James said.

Uranium chips can spontaneously ignite under certain conditions — such as the right combination of uranium content, mass and exposed surface area.

Bechtel hopes to have the initial test results on the shavings ready in a few days.

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TRI-CITY HERALD

SATURDAY, APRIL 4, 1998

Mid-Columbia briefs

From Herald news services

Management group to recognize Hanford team

Tri-City project management professionals are holding their annual awards banquet Tuesday in Richland.

The event features the 1997 Project of the Year award. The recipient is the 222-S Radioactive Liquid Waste Line Replacement by the Project Hanford Management Contractor team. Companies in the team include Fluor Daniel Hanford, Waste Management Federal Services of Hanford, Fluor Daniel Northwest and Dyncorp Tri-Cities Services.

The 222-S project included siting, permitting and analyzing the readiness of the system to transfer liquid waste from the 222-S Analytical Laboratory to a waste collection tank at the 200 West Area Tank Farms.

The project included decontamination and demolition of the 222-S waste collection system, which is 50 years old.

The banquet is from 6 to 8:30 p.m. in the Richland Doubletree Hotel, 802 George Washington Way, Richland. Dinner costs \$18.95. For reservations, call 375-0556, Ext. 221 by Monday evening.

Hanford waste analysis lab named project of year

The design and construction of a radioactive liquid waste transfer system at Hanford's 222-S waste analysis lab recently was named the 1997 Project of the Year by the Tri-Cities-Columbia Basin chapter of the Project Management Institute.

The \$11.4 million project began in 1993 and was finished in 1997 under budget and ahead of the Tri-Party Agreement schedule.

Contractors and subcontractors involved included Fluor Daniel Hanford, Waste Management Federal Services of Hanford, Fluor Daniel Northwest and Dyncorps Tri-Cities Services Inc.

Hanford security contract to be put back up for bid

By John Stang
Herald staff writer

Hanford's security forces should return to their former status to enhance "safeguards and security performance."

That's the directive John Wagoner, Richland DOE manager, has sent to Fluor Daniel Hanford. In a memo obtained by the Tri-City Herald, Wagoner rejected Fluor's request to extend an expiring two-year contract with the current security provider, B&W Protec.

Fluor Daniel Hanford apparently wanted to keep B&W Protec for at least two more years and renew its status as an "enterprise" company outside the core Fluor team.

B&W Protec, with 170 employees, is one of six "enterprise" companies spun off from Hanford in late 1996.

That means while its main contract is with Fluor, B&W Protec is supposed to find other clients away from Hanford so it can develop a

long-term business independent of Hanford.

On March 24, Fluor requested DOE permission to extend B&W Protec's contract, which expires Sept. 30, according to a memo from Wagoner to Fluor Daniel Hanford President Hank Hatch.

The memo said DOE rejected Fluor's recommendation and directed Fluor to solicit proposals for a new contract.

DOE "believes that (the) safeguards and security performance on the Hanford site can be enhanced by recompeting the contract for (those) services," the memo stated.

The memo did not say why DOE believes rebidding the contract would improve security services.

Wagoner and other appropriate DOE officials were unavailable Monday to discuss the decision.

B&W Protec has not been notified formally by Fluor of Wagoner's

See **Security**, Page A2

Tank below PFP needs \$40 million for cleanup

By John Stang
Herald staff writer

An underground tank at Hanford's Plutonium Finishing Plant needs up to \$40 million in cleanup work to prevent the possibility of it bursting into flames or releasing radiation.

Hanford officials Thursday outlined a plan for tackling one of the site's most recent pressing problems: Tank 241-Z-361.

Because plutonium-laced sludge has sat in the tank for more than 20 years, Al Ramble, a principal engineer at B&W Hanford Co. said the exact danger isn't known. However, some possibilities include:

■ Hydrogen gas building up and bursting into flames in an enclosed tank containing plutonium.

■ The plutonium achieving a criticality, which is a sudden release of radiation. Han-

ford officials believe this is unlikely but cannot rule it out.

■ The tank could be cracked, leaking or about to do so.

The officials outlined the problems with the Hanford Advisory Board's environmental restoration committee in Richland.

And they suggested it could take eight years and \$30 million to \$40 million to fix.

However, Hanford officials cautioned these are rough preliminary estimates that should be nailed down better later this year. And the project would have to compete for dollars against other Hanford cleanup projects.

The problem is the steel Tank 241-Z-361, which is enclosed in concrete and is under-

Exposed:

Two Hanford finishing plant employees examined Thursday for inhalation of plutonium.
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ground in the southeast corner of the PFP complex.

When PFP refined plutonium during the Cold War, its wastes went through a series of holding and sampling tanks before being disposed. In Tank 241-Z-361, the solids and sludges containing plutonium settled out before the liquids were pumped to the next disposal stage.

The tank was taken off line in 1973, and most of the remaining liquids were pumped out in 1975.

But the 13-foot-wide, 26-foot-long and 17-foot-deep tank remained half-filled with plutonium-laced sludge with about 4 inches of liquid on top.

That's enough sludge to fill possibly 1,500 or more 55-gallon barrels, Hanford officials said. And an estimated almost 64 pounds of plutonium are scattered among that sludge.

In the aftermath of May 1997's chemical tank explosion, PFP workers hunted for other hazards. They zeroed in on this tank, which was last analyzed in 1977.

Last fall, the Department of Energy declared that an "Unreviewed Safety Question" existed. That requires the potentially unsafe situation to be studied and fixed if needed.

The possibility of flammable gas erupting amongst plutonium has made Hanford experts extra cautious about poking about in a tank where the chemistry hasn't been analyzed for decades.

B&W Hanford, Fluor Daniel and DOE experts are mapping out their analytical plan for 1998.

The tentative approach this year is to study

See **Tank**, Page A2

Bechtel Women's Group looks beyond members' needs

By Melissa O'Neil
Herald staff writer

Bechtel assignments aren't always easy, with a change in assignments every few years sometimes placing families in remote or foreign areas.

Darlene Smith of Kennewick spent about four years at a Bechtel job site in Borneo — an Indonesian jungle — where the commissary was stocked by helicopter and a chain-link fence separated her back yard from the orangutans' territory.

Smith's husband, W. Lee Smith, was a cost engineer on a liquefied natural gas refinery building project.

"You just learn to adapt," she said of the exotic experience. "You sift your food to get all the bugs out. You learn to make your own bread. The kids had to learn to eat what was there. I learned a million ways of tenderizing the meat."

And a lot of that advice came from the other Bechtel women in Borneo and, like them, Smith passed her knowledge along to newcomers.

The 950 employees based in the Tri-Cities for Bechtel Hanford's nuclear waste cleanup work aren't exactly living in the middle of nowhere. But the people usually responsible for setting up a home still have a support network: the Bechtel Women's Group.

The only membership criteria involve gender and employment, said President Pat Logan of Pasco. You must be female and you must work, or be married to someone who works, for Bechtel — an international, privately owned engineering and construction firm.

Bechtel Hanford's women banded together in fall 1995. The group now has 65 members, a monthly newsletter, information in the employee orientation packet and an annual mass mailing to about 740 Bechtel Hanford families.

Dues cost \$10 a year, mostly to cover the newsletter costs.

The Tri-City women typically socialize in smaller groups that go on walks, discuss books and hold potluck dinners.

Here, most of the welcome wagon-type support is recommendations for doctors, hair stylists and car repair shops — not how to plan for twice yearly shopping trips, by helicopter, in a foreign city.

And because the Tri-Citians didn't have to deal with survival and basic comforts, they've had time to expand their mission. "We decided we didn't want to be a 'wives' group," Logan said.

Lorna Foelber of Richland agreed. "I wanted to do something for the community. I wanted to be more than a social group."

This spring, the women held their third annual auction, raising a record \$30,000.

Logan said the auction guidelines are simple. "The only thing we've said is it has to go to children in the Tri-Cities."

The group tried to pick a project for its original auction. But after hearing presentations from three worthy causes, decided to help all three.

Bechtel Women's Group auction proceeds have gone to the Tri-City Hospice House, Home Base II, the Benton-Franklin Children's Center, Head Start and Wishing Star.

This year's recipients are the Kadlec Medical Center Foundation and the Safe Harbor Crisis Nursery.

Two years ago, Kadlec received auction money for equipment to test babies for jaundice. This year, the \$15,000 is buying a hearing test machine for infants.

Safe Harbor will use its \$15,000 toward its goal of providing 24-hour care for children whose families are going through a crisis like child abuse or neglect. Nursery hours now are from 8 a.m. to 4 p.m. Monday through Thursday.

Sales of special Bechtel Corp. centennial wine glasses and logo-etched bottles of wine raised another \$2,850.

That money is buying materials for an Eagle Scout to build park benches for the Columbia Park Family Fishing Pond. Bechtel is the corporate partner for the Year of the River project, which opens April 25.

"It's not what we're doing," said Foelber, auction co-chairwoman. "It's the generosity of the employees."

And their first auction was a learning experience.

"It was at Columbia Crest winery, had a haphazard program and we were hoping for \$4,000 to \$5,000," Foelber remembered with a laugh.

They were shocked to bring in \$14,000.

"The following year, we got organized. We had a program and a better sound system," she said. The audience grew from 125 people to 200, and the donations came in at \$26,500.

"This year, fewer people were there, but we raised more money." The 185 attendees — all with Bechtel connections — donated an average of \$162 each.

Many spent more than that, paying \$650 for a Brazilian-style dinner for 12 people — cooked by a Bechtel worker who lived in South America — and \$1,300 for a week's stay in a condo on Hawaii owned by another employee.

This network of Bechtel women has grown tremendously over the years and now exists in nearly every major Bechtel office and project throughout the world.

Nadine Haag, manager
Bechtel Hanford human resources

"It's the services that tend to be more popular with people," Foelber said.

Logan added, "They're usually buying the services of people they know."

And the auction is when the men can get involved in the women's group, even giving in to some manly competition.

Last year, Tom Logan donated a duck dinner, with the entree hunted by himself. It sold for \$400.

This year, Tom Logan and Steve Foelber each offered physical labor groups for backyard or charity projects: each 80-hour package went for \$600.

But what it all comes down to is helping each other and improving the community.

"It's a wonderful support group," Logan said. "Because we're transient, we can move into an area and not feel alone."

Bechtel Hanford's human resources manager, Nadine Haag, agreed. "Bechtel is fortunate to have this ad hoc support group because the more quickly a family can adapt to a new environment, the happier the employee is, both personally and professionally."

"No matter how many times you've gone through it, relocating your household and family causes stress," Haag said.

"This network of Bechtel women has grown tremendously over the years and now exists in nearly every major Bechtel office and project throughout the world."

And at remote job sites like the jungle of Borneo, even an informal women's network can keep life interesting and safe.

"If people were in need of help, we did it," Smith said. "We didn't have telephones, so the grapevine was wonderful."

"Our community was the Bechtel project."

■ Reporter Melissa O'Neil can be reached at 582-1531 or via e-mail at mo'neil@tri-cityherald.com

Two Fluor workers get whiff of plutonium

By the Herald staff

Two Fluor Daniel Hanford employees are being examined to see if they inhaled plutonium Thursday while working on an air pressure gauge in the Plutonium Finishing Plant.

So far, body counter checks showed no internal contamination of the two along with five other nearby workers. But additional test results will be needed to confirm that preliminary finding, according to a Fluor news release.

The incident occurred shortly after 9 a.m.

Two technicians were performing maintenance on an air pressure gauge outside a glove box. A glove box is a chamber where contaminated material can be safely handled by someone outside the box. The gauge helps workers keep track of the air pressure inside and outside of the glove box. And an air line connects the gauge to the glove box.

The two technicians disconnected the air line to check it for

contamination, which was part of the maintenance procedure. They found contamination, immediately reconnected the air line and left the area.

The workers followed correct procedures, according to Fluor. The procedures did not require respirators be used on that job.

However, after the two left the work area, they were checked with nasal smears. The smears showed small amounts of contamination in the nasal passages of both. And a small amount of con-

tamination also was found in the hair of one, according to Fluor officials.

The two were decontaminated. The two, plus five other people who were working nearby, were checked with a whole body counter. That check showed no internal contamination.

But follow-up checks — of urine and body wastes — are needed to confirm the initial finding. Those results likely will be available in several days, according to Fluor.

Hanford firefighters to demonstrate tests

The Hanford Fire Department will conduct free demonstrations of its physical agility tests today and April 25 at the HAMMER training facility north of Richland.

The demonstrations are to show prospective firefighter applicants what to expect. DynCorp Tri-Cities Services Inc., which manages the fire department, expects to take applications later this year.

The demonstration times today and April 25 are 9 a.m., 11 a.m., 1 p.m. and 2:30 p.m. For information, call 376-6962.

Dangers at PFP get little attention

Some DOE officials believe Hanford site shortchanged

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Almost a year after an explosion in a chemical tank exposed 10 workers to fumes, punched a hole in the building's roof and leaked contaminated water, little progress has been made in cleaning up the Plutonium Finishing Plant at Hanford.

Federal regulators have become increasingly frustrated with the pace of the effort to stabilize the estimated 4 metric tons of radioactive plutonium stored in the plant known as PFP.

Some Department of Energy officials at Hanford believe PFP has been shortchanged as attention has focused on other, more pressing priorities.

Despite an overall cleanup budget of roughly \$1 billion annually for Hanford, the department, under pressure from state regulators, has had to make budget tradeoffs leaving money for little more than "guards and

guns" to protect the plutonium at PFP.

Competition for additional money has been tough at Hanford, which contains more than half the nation's nuclear weapons waste and is considered the most contaminated U.S. nuclear site.

Other priorities include leaking underground waste tanks holding millions of gallons of highly radioactive waste and potentially unsafe basins just 400 yards from the Columbia River holding 105,000 heavily corroded canisters of used nuclear fuel.

"There are competing priorities and not enough money to do all of them," conceded

Pete Knollmeyer, the Energy Department's assistant site manager for facility transition at Hanford whose responsibilities include PFP.

But Knollmeyer considers PFP a ticking time bomb and believes the chemical tank explosion in May should have sent a clear message it was time to get on with its cleanup.

"PFP is inherently unsafe," Knollmeyer said. "Every year we do no work and each day it costs more to keep it minimally safe."

John Conway, chairman of the Defense

See PFP, Page A2

Bechtel gets OK to prepare plan for subterranean water cleanup

By John Stang

Herald staff writer

The Department of Energy has given a green light to Bechtel Hanford Inc.'s proposal on how to prepare a master plan for coordinating subterranean water cleanup programs at Hanford.

On Monday DOE released what is sometimes referred to as the "plan on how to do the plan." Bechtel is to submit the actual plan to DOE by Sept. 30.

The cleanup measures are supposed to start in fiscal 1999, which begins Oct. 1.

Energy Undersecretary Ernest Moniz said the plan will include budget needs, and the size of those needs will influence the likelihood of getting extra money from Congress as fiscal 1999 begins.

Moniz said there also is the possibility money might be rerouted to the ground water program from other DOE programs, but added it is too early to speculate.

Hanford already has several programs mapping subterranean water contamination and how to

treat it, including work by Hanford's tank farm program and the Pacific Northwest National Laboratory.

But these efforts have not been meshed into one master program to coordinate risk calculation, sampling, analysis, treatment and tank waste issues.

That is what Bechtel will be doing with help from Fluor Daniel's team, Pacific Northwest National Laboratory and DOE.

Planning over the next several months will look at coordination issues and find possible gaps in the overall subterranean water cleanup effort.

Meanwhile, Indian nations and some groups have voiced concerns that the master plan efforts don't appear to include the underground contaminants' long-term effects on the Columbia River.

Moniz said the public and various Hanford interests will be consulted during the planning. "We will try to strike a balance among all the groups on their concerns."

Subterranean Hanford is a massive patchwork of plumes of

radioactive and nonradioactive contaminants from the site's Cold War plutonium production days. Scientists have only a hazy picture of those wastes and how they are traveling toward the Columbia River.

More than 400 billion gallons of water with diluted radioactive and hazardous wastes ended up in the ground during 50 years of defense production as wastes were dumped into numerous trenches, small tanks, pipes and other dump sites.

Also, 54 million gallons of highly radioactive wastes are stored in 177 underground tanks in central Hanford.

At least 67 of those tanks have leaked about 1 million gallons.

The bottom line is that 200 square miles of Hanford's underground aquifer are contaminated, with about 100 square miles of the contamination exceeding federal drinking water standards.

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Siren tests planned this week at Hanford

Hanford officials plan to test emergency sirens in the 400 Area and along the Columbia River from the Vernita Bridge to the old Hanford town site Thursday, Friday and possibly Saturday.

DOE seeks proposals for Hanford health services

By Annette Cary

Herald staff writer

The Department of Energy asked for proposals Monday for providing health services at Hanford through a contract similar to the one used now, government officials said.

DOE had been considering switching to a contract that would reimburse the winning bidder a fixed price for each service listed in the contract.

However, those plans have been dropped.

The company winning the bid will be reimbursed for its costs in addition to a base fee. It also will be eligible to receive more money through a performance fee for outstanding service.

"We found (the fixed price contract) was really not the way we wanted to buy medical services for Hanford," said Walter Scott, senior technical

adviser at DOE's environment, safety and health office and chairman of a panel evaluating the contract. The contract form, as released Monday, will make accommodating new hazards and new regulations easier, Scott said.

It does make some changes from the traditional management and operations contract now held by the Hanford Environmental Health Foundation to provide occupational health and medical monitoring services at the Hanford site.

For instance, the winning bidder would no longer operate with a letter of credit from the government but would bill the government.

Three criteria will be used to evaluate the bids initially. Experience and past performance will carry the most weight. DOE also will consider the proposed medical approach and transition plan, with the medical approach given more significance than the transition plan.

DOE also will consider the reasonableness of the cost, after proposals are ranked using other factors. The services included in the contract would be much the same as those now provided by HEHF. They include medical exams, medical monitoring, first aid stations, emergency preparedness support and prevention programs.

HEHF, a private nonprofit corporation, has provided health services at Hanford since 1965. The decision to put the contract into competition was not a reflection on HEHF's performance, which consistently has been rated excellent or better, DOE officials said.

HEHF has been waiting to review the DOE's request for proposals before indicating whether the agency would submit a proposal.

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Hanford workers honored for picric acid incident

Four Hanford workers were honored Tuesday for playing key roles in dealing with a vial of powdered picric acid found in late January in the 300 Area.

Energy Secretary Federico Peña praised the four as a cross section of all the workers who were involved in the incident.

Peña praised them and the rest of the workers for recognizing the potential explosion danger from the powdered picric acid, which was found unexpectedly during a routine survey of a crawl space in Building 327.

He also praised the prompt and by-the-book responses from identifying the problem through evaluating the area to neutralizing and removing the vial. At the time, it was believed the vial had the explosive potential of a large firecracker.

Peña cited:

■ Rich Howard of B&W Hanford Co., chief of the crew that found the vial.

■ William Hooper of B&W Hanford, the emergency director for Building 327.

■ David Hare of DynCorp Tri-Cities Services Inc., the Hanford Fire Department battalion chief during the incident.

■ James McQuown of DynCorp, a Hanford firefighter who played a key role.

K Basins work faces up to 3-year delay, Hatch says

By John Stang

Herald staff writer

Cleanup of Hanford's K Basins could be delayed possibly up to an additional three years and will cost even more than expected, according to the top contractor official at the federal site.

And that potential delay comes as there is continuing dissatisfaction with the subcontractor in charge of the K Basins cleanup, said Hank Hatch, Fluor Daniel Hanford's president.

Hatch said Wednesday that Fluor is "considerably dissatisfied" with how DE&S Hanford has responded to a December "cure" letter from Fluor about its concerns with management of the K Basins project. DE&S — also often called "Duke" — manages the project for Fluor.

Hatch declined to elaborate, but said, "We intend to close this out within a month."

Hatch also declined to say if the renewal of DE&S Hanford's two-year contract is in danger.

He acknowledged the learning curve would be steep for any new subcontractor stepping into the project, but added a reason for the two-year Hanford subcontracts is to make changes possible.

"Duke has been on the edge," Hatch said.

However, DE&S Hanford President Tony McConnell said Wednesday he believes Fluor's concerns will be resolved within a month and that the contract will be renewed. Fluor's "list of expectations is fairly comprehensive, and we are programatically working through those," he said.

McConnell said DE&S Hanford has done major internal overhauls in recent months that should take care of the management problems.

The potential delay of up to three years in completing the K Basins work was cited in a proposed revision to the cleanup schedule that was sent Wednesday to the Department of Energy. The current schedule calls for completing the project by 2003, but the revision suggests a proposed completion date sometime between 2003 and 2006.

DOE has not yet studied the proposal.

The proposal is an attempt to nail down the increasing costs and delays on the troubled K Basins Project and set a legally enforceable timetable that DOE, its contractors and its regulators can all live with.

The K Basins are two indoor pools near the Columbia River that hold 2,300 tons of spent nuclear fuel. Hanford's plan is to remove the fuel, process and package it and move it to a huge underground vault in central Hanford.

In the past year, the completion date was delayed 19 months to 2003. And the lifetime cost estimate grew \$274 million — from \$814 million to \$1.08 billion.

Further increases are expected, and DOE is taking heat from Congress on the costs and delays. In turn, DOE has turned up the heat on Fluor, which in turn has increased pressure on DE&S Hanford.

"The primary problem has been unreliable estimates," Hatch said. And Fluor has been slow to "identify that as the primary problem, And I'll take the hit for that."

Hatch said he's also concerned the problems with unrealistic estimates might exist at other Hanford projects.

The K Basins work plans, timetables and cost estimates have seesawed since the early 1990s, when DOE and Westinghouse Hanford Co. sped up the timetable from 2009 to 2001. Then, when Fluor and DE&S Hanford took over in 1996, they studied the project and said it would cost more and take longer.

By late 1997, DOE and Fluor figured they had a 20 percent chance of meeting the 2003 deadline, said Hatch and Charles Hansen, DOE's assistant manager for waste management.

That low confidence can be traced to the accelerated timetables, too many unresolved

technical questions, coordination problems and hopes that several parallel sub-projects could be finished simultaneously, Hatch and Hansen said.

A 20 percent confidence level is too low for DOE and Fluor as DOE enters negotiations Monday with the state and EPA on setting legally enforceable goals and schedules for the K Basin project. The talks are supposed to be done by May 15.

Hatch contended Fluor's and DE&S Hanford's revised plan sent to DOE Wednesday has a 90 percent chance of success.

He declined to discuss details until DOE reviews the plan. Hansen also declined to discuss details until the state, EPA and DOE can review it.

Hatch said cost increases are inevitable. He only would characterize the proposed cost increases as "not insignificant, but they're not going to double."

Another proposal Hatch is pushing is getting an outside "organization" to conduct independent reviews of the K Basins project. He declined to elaborate, saying this needs more discussion with DOE, but he said he hopes an independent review organization would be in place "in weeks, not months."

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

Hanford tours begin April 25

By the Herald staff

Hanford's Saturday bus tours will begin April 25 with 10 trips scheduled through September.

The routes will include the old reactors, the former town sites of Hanford and White Bluffs and the 200 Area.

Tour dates are April 25, May 16, June 13, June 27, July 11, July 25, Aug. 8, Aug. 22, Sept. 12 and Sept. 26.

The April 25 and Sept. 12 tours also will include walks through B Reactor.

The tours are free, but registration is required. The tours are on a first-come-first-served basis.

Participants must be at least 16 years old, U.S. citizens and have legal photo identification such as driver's licenses, passports or student identification cards.

People who are 16 or 17 must have signed consent forms from their parents. Forms can be obtained in advance or just before tours begin.

For the B Reactor walks April 25 and Sept. 12 tours, participants must be at least 18.

Tours will begin at 8:30 a.m. at the Federal Building in Richland. The buses will return to the Federal Building about noon. Cameras and camcorders are allowed.

To register, call Fluor Daniel Hanford at 376-0213.

Hanford health group likely to add Tri-City members

By Annette Cary

Herald staff writer

The Tri-Cities may have more say on federal research and policies regarding Hanford health issues again, after having all Tri-City members on a federal citizens advisory panel dismissed in January.

The Hanford Health Effects Subcommittee will consider applications to add new members when it meets in the Tri-Cities from Wednesday to April 24. The subcommittee is asking the government to add more members to balance reductions from the Tri-Cities, particularly in the areas of health physics, nuclear science and minority representation.

In January, the six members from the Tri-Cities on the 19-member subcommittee were told their terms would not be renewed. Two others, not living in the Tri-

Cities, also were asked to step down. Of the new members appointed, one was from the Tri-Cities.

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

They were particularly upset that while Tri-City members were dismissed, three people with downwinder lawsuits against the Department of Energy and its contractors had their terms on the subcommittee extended four years. Those three lived in the Tri-Cities or downwind of Hanford during the Cold War years when radiation was released intentionally and unintentionally.

The former members also criticized the

government for leaving no Tri-City scientists or technical specialists on the board. And they said the ethnic diversity of the Tri-Cities no longer was represented after the removal of one Hispanic member and the only black member.

Dr. Claire Broome, acting administrator of the Agency for Toxic Substances, replied that four former Tri-City residents were reappointed to the board. "We were not aware of the acute distinction apparently drawn between former and current Tri-City residency," she wrote.

"We are striving to ensure that the interests of all affected populations at Department of Energy sites are fairly represented, particularly at sites where releases of hazardous materials were as geographically vast as those at Hanford and the potentially affected populations are as widespread," she wrote.

In the future, subcommittee members will be consulted and the government will get more community input before making appointments to the subcommittee, she wrote.

Tri-City people who want to serve on the committee have a week to turn in a letter of interest to the committee. That's too little time to mail them to the Agency for Toxic Substances in Atlanta.

Instead, those interested should send them to the attention of Jim Carpenter of the subcommittee at the Doubletree Hotel's Hanford House in Richland. The letters also may be dropped off at the front desk until noon April 23.

Letters should include qualifications, information on why the applicant wants to serve and what experience or other benefits the applicant would bring to the subcommittee.

Applications received the last time they were solicited in 1996, more recent applications and applications solicited directly by current subcommittee members will be reviewed by a group from the subcommittee.

The meeting at the Hanford House will start with a workshop from 1 to 5 p.m. Wednesday to discuss health assessments at the Hanford 200 and 300 areas. The group will meet at 8 a.m. April 23 and break into work groups in the afternoon. Work groups, including those working on subcommittee memberships, will report back to the full subcommittee from 8 a.m. to 12:45 p.m. April 24.

Public comment will be heard at 2:30 and 4:45 p.m. Wednesday; 11:45 a.m. April 23 and 12:30 p.m. April 24.

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

Waste plan wins top award

By the Herald staff

A proposed master plan on moving and treating the Department of Energy's radioactive wastes nationwide received the highest award of the American Academy of Environmental Engineers on Thursday.

This is the first time a federal venture has received the "Excellence in Environmental Engineering Superior Achievement Award," said a letter by the academy's president, W. John Denson.

The plan is a cooperative effort of DOE and contractors at 11 sites, including Hanford.

The plan looked at how wastes could be moved among DOE's sites, treated and stored in the most cost-effective ways.

"This project has demonstrated that DOE and its contractors can work together to achieve meaningful results on complex-wide issues," Denson wrote.

The so-called "Contractors'

Report" looked at the waste transfer solely on technical and economic grounds, but does not address issues like transportation concerns, public interests, regulatory problems and striking a fair balance among states.

It is intended to be a starting point for discussions on this issue.

Hanford could store or treat much of DOE's nationwide radioactive wastes, according to the report, which looks at ways to cost-effectively speed up cleanup at many DOE sites through 2006.

Under the report, Hanford would bring in a greater volume of wastes, but would ship out greater amounts of radioactivity than it would receive.

Metro/Northwest

Tri-City Herald

Monday, April 20, 1998

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PNNL list highlights innovations for next decade

By Annette Cary

Herald staff writer

Keeping the planet clean so that less global housekeeping has to be done in the future has emerged as a major theme in a technology forecast to be released today in Richland.

Scientists and engineers at Pacific Northwest National Laboratory developed a list of the 10 most important environmental technology breakthroughs they expect consumers to see over the next decade.

They envision a future with safer drinking water, cars light enough to get 80 miles to a gallon and food crops genetically engineered to require less pesticide and fertilizer.

"Dreams and demos now, these technologies will have real impacts by 2008," said Gerry Stokes, associate laboratory director at the Department of Energy lab.

The laboratory's main environmental missions are long term, focusing on cleanup and global climate change. But some of the research the lab is doing, from basic to applied science, could

shape products used by consumers in the next decade.

For instance, the laboratory is working on lightweight cars, has announced a new agriculture science emphasis and is doing molecular research at the Environmental Molecular Sciences Laboratory.

Here's what the Richland lab predicts will emerge as the top trends around the nation:

■ **Agriculture genetic engineering.** By manipulating plants' genes, crops can be grown that need less pesticide because they already are more resistant to pests. Other crops will be engineered to use their nutrients more efficiently so they produce higher yields with less fertilizer or water. In some crops, features could be combined. For instance, soybeans that taste better, are less attractive to insects and use little fertilizer should be available.

■ **Smart water treatment.** Smart membranes, or filters, will improve the quality of drinking water before it leaves city water plants. The membranes and other techniques will remove organic compounds that now can react undesirably with chlorine. Spongelike grains of sand

will attract and hold nitrates and heavy metals to further protect drinking water.

■ **Renewable energy storage.** Improved power storage will make sunshine and wind more practical for producing electricity. Solar power collected during the day could be stored in rapidly spinning flywheels and used after the sun goes down, for example. These renewable energy sources will help slow increases in greenhouse gases produced when carbon-based fuels are used for energy.

■ **Micromanufacturing.** Just as microtechnology has revolutionized electronics, shrinking the size of computers and making them more efficient, it could have similar benefits for producing chemicals and energy. Air could be warmed with heat pumps the size of postage stamps. And chemicals that are now made in bulk to be shipped around the country, could be produced in on-site, micro plants.

■ **Less paper.** Innovative displays, wireless communications and customized magazines on the Internet should reduce the mounds of paper in our lives, as well as the environ-

mental effects from manufacturing paper and ink. New systems to display information could imitate paper in their flexibility and portability. One approach will project images directly on the retina of the eye. This technology, along with a cellular phone, could provide business travelers with faxes — or entertainment — anywhere. For paper products that continue to be used, biodegradable inks will be more common.

■ **Molecular design.** Better understanding how materials behave at the molecular level will help in the development of advanced materials. Sensors designed at the molecular level will monitor manufacturing of materials and chemicals more precisely, stopping or correcting processes sensitive to temperature or other changes. Some chemical reactions and processing could become so precise little or no wastes are produced.

■ **Biological processing.** More fuels and medicine could be grown from plants and microorganisms. Some of the promise in this area comes from microorganisms retrieved from extremely hot or cold environ-

ments. They are expanding the range of temperatures and conditions used in manufacturing biotechnical products.

■ **Real-time environmental sensors.** New sensors could detect E. coli and other pathogens in food without the wait for cultures to be grown in a laboratory. Air quality also could be monitored, preventing infections in hospitals, for example.

■ **Recycling.** Companies will create products that are more biodegradable. And, newer processes, such as dry cleaning with liquid carbon dioxide, will reduce hazardous chemical waste.

■ **Lightweight cars.** Cars will be built with less steel and more lightweight materials such as aluminum, magnesium and titanium. Windows will be made of a sandwich of glass and plastic, cutting the weight of a car by 50 pounds. Glass coated to reflect or absorb heat will allow air conditioners to weigh 50 pounds rather than 100.

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

Big cuts in cleanup funding considered

By Les Blumenthal
and John Stang

Herald staff writers

WASHINGTON, D.C. — The chairman of a key House defense subcommittee is considering cutting the Department of Energy's proposed environmental budget by a minimum of \$500 million in a move department sources said Wednesday could result in 1,250 layoffs at Hanford and put a hold on all but the highest priority cleanup projects.

Hanford would face up to 1,250 layoffs

Congressional sources say Rep. Duncan Hunter, R-Calif., chairman of the House National Security Committee's defense procurement subcommittee, also may be considering deep cuts in the Energy Department's proposed budget to privatize some of its major cleanup programs.

That could disrupt the plan to turn over

to a private contractor, as early as this summer, the cleanup of Hanford's most pressing environmental threat — the highly radioactive waste stored in aging and leaking underground tanks.

Either way, Energy Secretary Federico Peña told a group of lawmakers Wednesday that such cuts were unacceptable.

"We are talking about a minimum of \$500 million and that's very serious," Peña said after the meeting on Capitol Hill. "We wanted to share with the lawmakers some of the ramifications."

Peña also warned the cuts could jeopardize the ability of the department to meet its legal obligations, including the Tri-

Party Agreement at Hanford, to clean up its defense production sites.

"We are very concerned about the legal requirements," Peña said.

Washington Gov. Gary Locke and Attorney General Christine Gregoire made it clear to Peña in a very pointed meeting earlier this year that the state was prepared to sue the Energy Department if it missed any more of the major cleanup deadlines at Hanford.

See Cuts, Page A2

Hanford office workers make safety milestone

Fluor Daniel Hanford's salaried workers have logged 2 million safe work hours.

The no-lost workdays milestone is based on Fluor's Oct. 1, 1996, takeover of the Hanford site nuclear waste cleanup contract. It applies to 620 Fluor Daniel Hanford workers and about 35 people supervised by Fluor but who are employed by other subcontractors.

The workers are engineers, analysts, accountants, attorneys, secretaries and clerks. In 18 months, only 10 minor injuries were reported to the Occupational Safety and Health Administration.

Hanford's B Plant offers tricky challenges in facilities transition

By John Stang
Herald staff writer

A look through B Cell's gloomy, 4-foot-thick windows reveals Cold War flotsam — small tanks, 25-foot-tall racks, various loose containers.

But it's the layer of contaminated dirt — 1 to 6 inches deep — on the three-story chamber's 550-square-foot floor that makes B Cell extra dangerous.

The dirt consists of shavings, filings and debris from dealing with several types of wastes and dismantling old equipment since the mid-1960s.

That dirt contains about 1.5 million curies of radiation. Another 1.7 million curies is elsewhere in B Cell, mostly inside the tanks. Those numbers exceed the amount of radiation released by the bombs dropped on Nagasaki and Hiroshima.

An unprotected person would absorb more than 2,000 rads an hour inside the chamber.

That translates to a quick death.

An earthquake that could crack B Cell and the 324 building would increase the risk of the dirt and its 1.5 million curies escaping from the complex, although Hanford officials think the odds of that are remote.

But "it's so close to Richland. It's one of our higher risks," said Jim Mecca, DOE's deputy assistant manager for facilities transition.

In fact, DOE considers B Cell one of Hanford's top four riskiest sites.

And while the Plutonium Finishing Plant, K Basins and tank farms are isolated 15 to 25 miles away in inner Hanford, B Cell is just about 1½ miles from Richland.

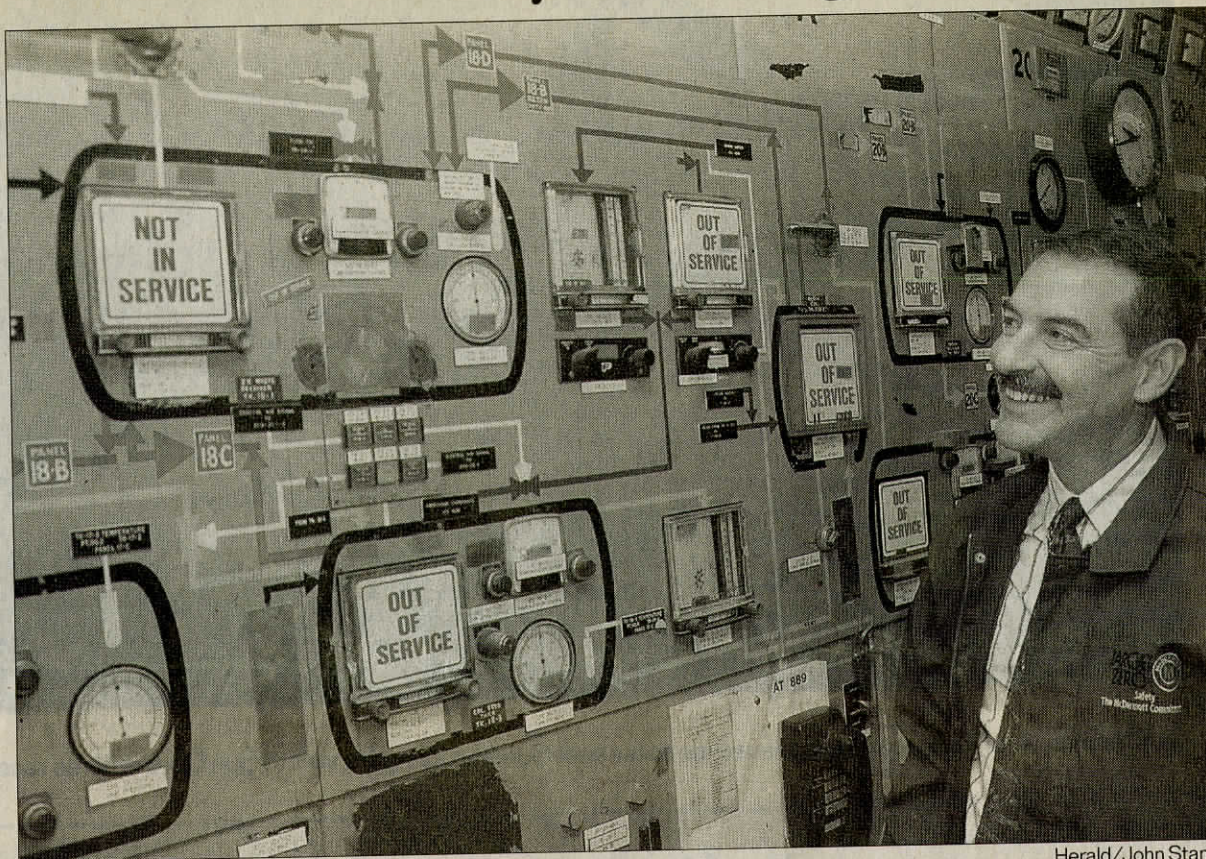
B Cell and Building 324 are just one piece of Hanford's "facilities transition" program.

"Facilities transition" is the Hanford term for cleaning and closing up Hanford buildings — especially the old labs and huge chemical processing plants. B&W Hanford Co. is the subcontractor handling this program for Fluor Daniel Hanford.

Like much of Hanford, the facilities transition program faces a shrinking budget.

There is only so much Hanford cleanup money available, and the tank farms and K Basins programs are higher in the pecking order.

A shrinking facilities transition budget now could lead to greater costs over the long run, Hanford officials argue.



Herald/John Stang

Bob Heineman Jr., B&W Hanford Co.'s manager for the B Plant project, looks over a control panel successfully shut down.

B Plant cleanup expected ahead of schedule

By John Stang
Herald staff writer

The cleanup and closing of Hanford's B Plant is scheduled to finish by September.

It will mark the second straight year that deactivating one of Hanford's old chemical processing plants will occur significantly ahead of schedule.

First, there was the Plutonium Uranium Extraction plant, whose cleanup and closure in June put it 15 months ahead of schedule and \$75 million under budget.

Now B Plant is on track to finish four years early with savings expected to run about \$100 million.

Both were old plants that handled several steps on extracting plutonium from irradiated nuclear fuel. These are dubbed "canyons" because of their huge sizes.

The accelerated cleanups essentially came from efforts that began in the mid-1990s to streamline management, map out well-planned approaches, improve coordination, and learn from past projects, said Bob Heineman Jr., B&W Hanford Co.'s manager for the B Plant project.

B Plant was built in World War II to help create plutonium. It was closed in 1952, then resurrected in the 1960s to separate cesium and strontium from storage tank wastes before closing again in 1984.

Closing an 800-foot-long contaminated chemical

hot cells and inner chambers are safely isolated.

■ Shutting down high-pressure steam systems and most of the electrical systems — most which date back to World War II. "This made me nervous more than anything else. It was a very high hazard to our workers," Heineman said.

■ Tracking down and getting rid of several tens of thousands of gallons of chemicals, greases and solvents. Also, asbestos had to be removed.

■ Getting rid of old equipment.

■ Decontaminating 350,000 square feet of space. However, B Plant likely will never be totally cleaned — and 500,000 curies of radiation remain in inner chambers where only people in protective gear are allowed.

B Plant and WESF have been linked for years, but workers now are turning them into separate facilities.

Currently, about 175 people work at the WESF and B Plant complex. When deactivation is complete, about 60 to 75 people will work at the WESF, and surveillance and maintenance crews will check out B Plant periodically.

B Plant's annual maintenance costs are expected to drop from \$20 million to \$650,000 to \$750,000, according to Hanford estimates.

PUREX's accelerated cleanup resulted in eight to 10 PUREX workers being formed into a team to

It has been plagued by the May explosion, a safety-related moratorium on moving plutonium within the plant for at least 15 months and the expensive safety questions pertaining to underground tanks holding plutonium-laced sludge.

Meanwhile, DOE had hoped to speed up its cleanup and closure.

Originally, DOE expected to clean it out by 2014 with the buildings still standing. Then DOE figured if it could funnel an extra \$200 million to the PFP through 2006, it could have the complex cleaned out and dismantled by 2006.

"But we can't find the \$200 million," Knollmeyer said.

DOE calculated that spending the extra \$200 million through 2006 would save \$1.2 billion over the next few decades because most of the long-term maintenance would disappear.

With the budget cuts so far, DOE is already one year behind that new 2006 target with further delays possible.

324 Building

Experiments with radioactive materials were conducted here. Much of the work was done by remote control in six huge chambers called "hot cells" — including B Cell.

B Cell's 3.2 million curies are most of the 3.5 million curies of radioactive contamination in the building.

Hanford still is working on setting a completion date for cleanup. Officials say the annual maintenance costs will drop from \$14 million to \$250,000 after the work is done.

327 Building

Irradiated materials, especially reactor fuel elements and casings, were examined and tested here — usually in one of 12 hot cells.

The picric acid vial that prompted January's evacuation of the 300 Area was discovered in this building.

Hanford still is working on setting a completion date. Hanford's estimates say that would cut the annual maintenance costs from \$6 million to \$150,000.

The Plutonium Uranium Extraction Plant

Workers at PUREX chemically extracted plutonium nitrates and plutonium oxides from the uranium irradiated in Hanford's now-

State lobbies D.C. for Hanford

By Les Blumenthal
and Melissa O'Neil

Herald staff writers

WASHINGTON — Washington state lawmakers have scheduled a meeting next week with the chairman of a crucial House defense subcommittee who is considering sharp cuts at Hanford and other Cold War cleanup projects.

Washington's lawmakers, along with representatives from other states with Department of Energy facilities, started to crank up their lobbying effort Thursday, talking with members of the House National Security Committee and its defense procurement subcommittee.

But the real focus is Rep. Duncan Hunter, R-Calif., who as chairman of the subcommittee is one of the most ardent defense hawks on Capitol Hill and believes the more than \$5 billion budget for the Energy Department's cleanup programs can be raided to beef up funding for the Pentagon.

While Hunter has not indicated what he has in mind, Energy Secretary Federico Peña said Wednesday after meeting with lawmakers that Hunter was considering a minimum \$500 million cut in the administration's proposed \$6 billion budget for cleaning up department sites.

Such a cut could result in 1,250 layoffs and delay work on all but the highest priority projects at Hanford, according to a department analysis.

Others, however, believe Hunter may be eyeing an account the department wants to use to fund the privatization of major cleanup activities, including the No. 1 priority at Hanford: building a vitrification plant to convert the highly radioactive waste in leaking underground tanks into glass logs.

Waste barrel solution will take time

By John Stang
Herald staff writer

It might take a couple of months of sampling, study and planning before Bechtel Hanford tackles a solution to 1,500 waste barrels containing uranium shavings north of Hanford's 300 Area.

About 350 of those barrels were dug up from a burial site before Bechtel stopped the excavation.

Of that 350, 149 drums have been put in bigger oil-filled barrels as an extra safety precaution, said Jeff James, Bechtel's task leader for the project.

Uranium chips can spontaneously ignite under certain conditions. Oil is used to keep the uranium chips from burning.

About 70 of the 149 barrels had leaked their oil to dangerous levels. The rest of the 149 were in shaky enough condition to require they also be put in the bigger oil-filled barrels, James said.

Hanford officials believe about 1,500 barrels — including the 350 already dug up — could have been buried at the disposal site between 1955 and 1961.

James said it is likely a significant number of the remaining barrels have leaked or are likely to leak.

Bechtel does not want to dig up the remaining barrels and possibly damage them further until it comes up with a plan for safely completing the work, he said.

Bechtel had been excavating the old burial site to haul items and debris to a central Hanford landfill designed for radioactive rubble and soil.

Saturday, April 25, 1998

Murray to invite California lawmaker to Hanford

Republican proposed using cleanup funds for defense

By John Stang
Herald staff writer

U.S. Sen. Patty Murray plans to invite U.S. Rep. Duncan Hunter, R-Calif., to visit Hanford soon to stress keeping cleanup fully funded and on track.

"We have to educate our fellow legislators what the Tri-Cities are about, what Hanford is about. ... We can't wait until there is a crisis," Murray said Friday in Kennewick.

Hunter chairs a key congressional subcommittee, and eyes taking \$500 million to \$1 billion from the Department of Energy's overall cleanup funds for defense purposes.

Murray, D-Wash., plans to send Hunter a letter "telling him to come here if he makes decisions like that."

Hunter's proposed cuts would translate to putting much of Hanford's cleanup on hold,

leaving only the K Basins, tank farms and possibly the Plutonium Finishing Plant to creep along, according to DOE estimates.

That would cut Hanford's proposed 1999 cleanup budget of \$1.114 billion by \$136 million to \$273 million.

And that would translate to 1,250 to 3,100 trimmed jobs, those estimates concluded.

Hunter heads the House's National Security Committee's defense procurement subcommittee.

Last year, he played a key role in trimming DOE's set-aside funds for privatized cleanup projects from \$1 billion to \$200 million. That included reducing the fund for Hanford's privatized waste glassification project from \$427 million to \$115 million for 1998.

Originally, the National Security Committee wanted to trim Hanford's privatization budget to nothing in 1998.

Murray expects Hunter will try to trim the same Hanford set-aside funds for 1999 — which is currently requested at \$330 million. This money would be put away to pay one or two corporate teams after they begin glassi-

fying the wastes — supposedly starting in 2002.

Meanwhile, Gov. Gary Locke and state Attorney General Christine Gregoire discussed Hunter's proposed cuts Friday, but made no decision, said spokeswoman for both.

Locke has threatened to sue the federal government if DOE misses more legal cleanup milestones.

Murray said a strong Energy secretary to replace the soon-to-leave Federico Peña is needed to provide a long-range push for sufficient congressional appropriations.

"I think (DOE) needs someone who is in your face," Murray said.

She has heard of three candidates to replace Peña, who leaves June 30.

They include:

■ Deputy Energy Secretary Betsy Moler, who was the original front runner for the post 1½ years ago until President Clinton decided at almost literally the last minute to appoint Peña because his Cabinet lacked a Hispanic member.

She earlier had been chairwoman of the Federal Energy Regulatory Commission.

"Betsy Moler clearly understands the issues," Murray said, adding she wants to question Moler before considering backing her.

■ United Nations Ambassador Bill Richardson, a Hispanic, who served as a congressman from New Mexico for 14 years.

"If he got (the secretary's post), he would have a lot of clout with the administration," Murray said, again adding she wants to talk with him before making up her mind about him.

■ U.S. Rep. Esteban Torres, D-Calif., also Hispanic, who recently approached Murray's office to say he is interested in the post. Torres is an unknown quantity to Murray.

Congressional reference books say Torres has represented his Southern California district for 16 years, concentrating heavily on labor issues.

In December 1996, he was considered a strong candidate for Secretary of Labor, but Clinton finally opted for Alexis Herman.

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METRO/NORTHWEST

SATURDAY, APRIL 25, 1998

TRI-CITY HERALD

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7 ex-Fluor workers file federal complaint

By John Stang
Herald staff writer

Seven former Fluor Daniel Northwest workers have recently filed complaints with the U.S. Department of Labor alleging they were improperly laid off as seven other employees were reinstated.

The Labor Department hasn't started an investigation, but will do so soon, said John Spear, assistant regional administrator for federal and state operations at the Labor Department.

Spear said the investigation "should be completed in 30 days. We don't always meet that. These cases can be complex. But we'll try to meet the (timetable)."

Fluor targeted supporters of the original seven in selecting the second group of seven to be laid off, said pipefitters Pete Nicacio and Ray Richardson. Nicacio is one of the original seven, and Richardson is one of the second seven.

Meanwhile, Fluor Northwest denies the allegations, saying the layoffs have been part of the normal ebb and flow of the construction business.

Each of the new complaints has its differences. But their common theme is that they were "laid off unnecessarily in a discriminatory fashion

because the seven original pipefitters returned to work," Spear said.

This is the latest development in a controversy that dates back to the summer when Fluor Northwest terminated seven pipefitters.

Fluor Northwest contended then, and now, that the original seven were laid off because their Hanford project was done.

The original workers contended they were laid off in retaliation for raising several safety concerns on that project.

A U.S. Department of Labor investigation concluded in favor of the workers.

Fluor Northwest appealed, and eventually the two sides reached a settlement agreement in February that reinstated the workers, paying them \$42,000 each plus their legal expenses of \$40,000.

But that legal battle still continues in federal court. Both sides claim the other violated the settlement agreement in a dispute over if the original pipefitters can file a union complaint against some other union members involved with the original controversy.

Meanwhile, to reinstate the original seven pipefitters, seven others had to be laid off to

make room, said Fluor Northwest spokesman Jerry Holloway.

Holloway noted that the Fluor Northwest's crafts workers numbers have gone up and down — with the overall trend being down. "The work demands really drive the the layoff process," Holloway said.

When Fluor Northwest started working at Hanford on Oct. 1, 1996, it employed 377 workers in the construction crafts, including 70 pipefitters.

That dropped to 327 craft workers March 30, 1997, including 71 pipefitters. The numbers fell again to 271 including 60 pipefitters Sept. 30 1997. The number jumped a bit to 297 including 64 pipefitters by Dec. 30, 1997.

The overall level of craft workers remained somewhat steady through March 30 at 291, including 64 pipefitters.

But the workload dropped in April, so Friday the tally stood at 245 crafts workers including 55 pipefitters.

Holloway noted that nine pipefitters — in addition to the seven filing the new complaints — were laid off in recent weeks.

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

Health panel seeks Tri-City members

By the Herald staff

The Hanford Health Effects Subcommittee will ask the federal government to add three or four members from the Tri-Cities to its group in time for its July meeting.

The group finished up three days of workshops and meetings Friday in the Tri-Cities with a discussion of adding more members. From applications it has received, it has selected about a dozen people for more consideration.

The board is allowed to have as many as 30 members, but generally has been kept at about 18 members.

In January, the six members from the Tri-Cities on the subcommittee and two others were told their terms would not be renewed.

Replacements — all but one from outside the area — were picked by the Centers for Disease Control and the Agency for Toxic Substances and Disease Registry.

When the former members from the Tri-Cities protested, the federal government agreed to consult the subcommittee before making changes in the future.

The subcommittee also is asking that experts in chemical exposure

and risk communication be added to the group and that one of the new members represent the black community. The federal government will make the final decision on the appointments.

The subcommittee advises the government on federal research and policies regarding Hanford health issues.

Tuesday, April 28, 1998

Murray issues Hanford invite to key lawmaker

By John Stang

Herald staff writer

U.S. Sen. Patty Murray on Monday formally invited U.S. Rep. Duncan Hunter, R-Calif., to visit Hanford soon so he can see why nuclear cleanup must be fully funded and kept on track.

Hunter, who chairs a key congressional subcommittee, has suggested taking \$500 million to \$1 billion from the Department of Energy's cleanup money and using it for national defense.

"I realized one of the reasons you might be considering such a trade-off is that you have not yet seen both the challenges and suc-

cesses the (environmental management) program has had. I believe it is impossible to tour ... (Hanford) ... without a sudden and sobering realization that a significant and reliable level of federal funding is needed to clean it up," Murray wrote Monday.

"I am confident that if you take the time to see what we have accomplished through the environmental management program at Hanford, you will seek cuts from other sources," she added.

Hunter could not be reached for comment late Monday.

His proposed cuts would translate to putting much of Hanford's cleanup on hold, except for a handful of major projects,

according to DOE estimates.

That would cut Hanford's proposed 1999 cleanup budget of \$1.114 billion by \$136 million to \$273 million.

And that would translate to cutting 1,250 to 3,100 jobs, those estimates concluded.

Hunter heads the House National Security Committee's defense procurement subcommittee.

Last year, he played a key role in trimming DOE's set-aside funds for privatized cleanup projects from \$1 billion to \$200 million. That included reducing the fund for Hanford's privatized waste glassification project from \$427 million to \$115 million for 1998.

Originally, the National Security Com-

mittee wanted to trim Hanford's privatization budget to nothing in 1998.

Murray expects Hunter will try to trim the same Hanford set-aside funds for 1999 — which are currently a request for \$330 million. This money would be put away to pay one or two corporate teams after they begin glassifying the wastes, which is supposed to begin in 2002.

Meanwhile, Gov. Gary Locke has threatened to sue the federal government if DOE misses more milestones set by a state-federal cleanup agreement.

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

Bechtel work likely target of fiscal 2000 budget cuts

By John Stang

Herald staff writer

Bechtel Hanford Inc.'s environmental restoration program could be trimmed by more than a third under federal budget targets set for fiscal 2000.

Bechtel hasn't begun analyzing what that would mean to programs or jobs yet, said Bechtel President Steve Liedle.

However, he said that scenario likely would mean layoffs among the roughly 950 people in Bechtel's three-company team.

The scenario comes from the fiscal 2000 target set for Hanford by the Department of Energy's headquarters. The Washington, D.C., office based its estimates on budget targets the department received from the federal Office of Management and Budget, which prepares the president's budget for Congress.

DOE's Richland office has examined the targets and figured what it could and could not do for those amounts. Those conclusions recently were sent back to DOE headquarters.

DOE headquarters set Hanford's fiscal 2000 environmental cleanup budget at \$1.07 billion, which is divided between \$961 million in programs controlled by the Richland office and \$109 million controlled by Washington, D.C.

The problem is with the target set for the Richland-controlled programs.

DOE's Richland office calculates \$1.14 billion — not \$961 million — is needed for locally controlled programs to meet all legal cleanup requirements in 2000, said Lloyd Piper, DOE's deputy Hanford manager.

That means a \$183 million shortfall. "We definitely hope that won't be the final outcome," said DOE Hanford Manager John Wagoner.

Wagoner, Piper and Liedle all cautioned these are preliminary calculations and could change.

"A lot can happen between now and fiscal 2000," Liedle said.

However, U.S. Sen. Patty Murray's office and other sources indicate it would Ron Green, president of Fluor Daniel Poser in Greenville, S.C., a

See Fluor, Page A2

Fluor Daniel Hanford president steps c



Hatch

By John Stang

Herald staff writer

Fluor Daniel Hanford President Hank Hatch has resigned his post to take a position with an undisclosed East Coast-based organization.

His replacement apparently will be Ron Green, who is president of Fluor Daniel Power in Greenville, S.C., according to information posted on the Internet by Fluor Daniel.

Hatch's resignation becomes effective May 29. He and his wife, Shelley, a retired Army lieutenant colonel, expect to leave the Tri-Cities for his new job in the fall.

"It was totally my choice to set the timing of my departure," said Hatch, who has been the subject of resignation rumors for several months.

John Wagoner, the Department of Energy's Hanford manager echoed that the departure is Hatch's decision.

Hatch, 62, said he received "an attractive, but unsolicited" job offer from an East Coast-based organization that "has been around for a hundred years" — and decided to accept that offer Monday.

He declined to elaborate on the offer, citing an agreement with the organization for it to make that announcement eventually.

"It's an opportunity to engage on a more national and global basis my engi-

neering profession and to work with a number of colleagues that I've worked with for decades," Hatch said.

A West Point graduate, Hatch is a retired Army lieutenant general who was the head of the Army Corps of Engineers.

A veteran of a nomadic life, Hatch never expected to be at Hanford for more than two or three years — citing the normal turnover and transfer rates among executives in national and

multinationals.

His new job is his new slot.

Hatch, 61, they are not replacement.

However, U.S. Sen. Patty Murray's office and other sources indicate it would Ron Green, president of Fluor Daniel Poser in Greenville, S.C., a

DOE eyed for help with Richland industrial rail spur

By Chris Mulick

Herald staff writer

The Department of Energy is being targeted as another possible source of money to help build a \$1.9 million rail spur to serve the Horn Rapids Industrial Park in north Richland.

Several companies considering opening plants in Richland are waiting to see if rail service will be available, said Matt Slavin, Richland's business and economic development manager.

"There have been some companies that

have indicated they won't make a decision on whether to locate here until there is evidence a rail spur will be constructed," Slavin said. "We've certainly had companies who have said 'We're not ready to make a commitment.'"

Mayor Larry Haler said the area has drawn interest primarily from companies that would add to the metallurgical businesses at the park.

Oregon Metallurgical is scheduled to open a plant there in June, and Kaiser Aluminum has purchased land for a factory.

While the spur won't cinch a deal for every new company interested in building a plant at Horn Rapids, Haler is optimistic it would put Richland over the top in the race for some of them.

"It could tip the scales in our favor," he said.

DOE is the second federal source the city has talked to about money for the rail spur. U.S. Department of Commerce officials embraced the project before deciding they didn't have enough money to approve a \$1.2 million grant application this year.

But Bob DeGrasse, DOE's director of Worker and Community Transition program, said in a letter Friday to U.S. Sen. Patty Murray, D-Wash., that he would welcome a request for community assistance from the Tri-City Industrial Development Council.

DeGrasse, who could not be reached for comment, toured the industrial park last month. Dick Greenberg, TRIDEC's chief executive officer, said a formal request will be submitted to DOE within 30 days.

He said such a request to DOE is unusual but will be made because the

region badly needs the spur.

"DOE doesn't typically do infrastructure projects," Greenberg said. "It would be out of the ordinary, but it isn't unthinkable."

The city also has been offered \$1.2 million in loans for the project from state and local sources, though Haler would prefer to get as much money from federal sources as possible.

"I'm looking to get the whole kit and caboodle," he said.

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

Wednesday, April 29, 1998

DOE budget cutter focuses on privatization

Washington lawmakers urge careful consideration of cleanup fund at Hanford

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The chairman of a key House defense subcommittee said Tuesday that he remains skeptical about Department of Energy plans to privatize parts of its cleanup programs, including the top priority at Hanford — the highly radioactive waste stored in underground tanks.

"It's something new, and we need to watch it closely," said Rep. Duncan Hunter, R-Calif., after a 20-minute meeting with lawmakers who are concerned Hunter may be considering Draconian cuts in DOE's proposed cleanup budget for the coming fiscal year.

With his subcommittee expected to start considering the defense authorization bill as early as next week, Hunter gave no indication what he has planned as he scrambles to find additional money to beef up a military budget he and Republican leaders believe has been

reduced too severely over the past several years.

"We haven't made the final cut (of the bill)," said Hunter, chairman of the House National Security Committee's defense procurement subcommittee.

Last week, Energy Secretary Federico Peña said Hunter was considering cutting the department's cleanup budget by a minimum of \$500 million, and there were some indications the cuts could reach \$1 billion.

If approved by Congress, such cuts could reduce Hanford's proposed \$1.1 billion budget by between \$136 million and \$273 million — and result in layoffs of between 1,250 and 3,100 workers, according to DOE estimates.

Those cuts also would put much of Hanford's cleanup on hold, except for the high-priority cleanup work at the K Basins, tank farms and Plutonium Finishing Plant.

But Hunter seems to be zeroing in on the department's privatization account, including the \$330 million DOE wants to set aside for the tank waste cleanup at Hanford. The money would be set aside and used to start paying private corporations after they start glassifying the wastes in 2002.

Last year, Hunter sought to eliminate the entire \$1 billion the department requested for privatization. Eventually, Congress provided \$200 million, including about \$115 million for the Hanford wastes.

"He has cut it before and is looking for money," said Rep. Norm Dicks, D-Wash., after Tuesday's meeting with Hunter. "I am concerned about this."

Both Dicks and Rep. Doc Hastings, R-Wash., whose district includes Hanford, said Hunter is under tremendous pressure to find money to increase defense spending.

"He's in a bind," Hastings said. "But I'm confident we will be OK."

Hastings said Hunter has been "very accommodating," so far, and added he and other lawmakers will continue to talk with Hunter and other members of the subcommittee and the full National Security Committee.

Hunter said Hastings has been making an effective case against cleanup cuts but emphasized he has made no final decisions.

"I still have some reports to read," Hunter said.

Dicks said Hunter has been receiving conflicting information from the Department of

Energy and members of the boards of directors of the companies that are bidding on the Hanford glassification project over how much needs to be set aside.

"There is a difference of opinion," Dicks said, adding he and Hastings also warned Hunter if there are delays in the tank waste cleanup program, Washington state is prepared to sue.

A spokesman for Hunter, meanwhile, said Tuesday that Hunter had not yet received an invitation from Sen. Patty Murray, D-Wash., to tour Hanford. Murray issued such an invitation Monday.

However, Harald Stavenas, Hunter's spokesman, also made it clear his boss would be dealing with Hastings on Hanford issues, not Murray.

"Congressman Hunter is and has been working on this with Rep. Hastings," Stavenas said. "Rep. Hastings has invited him out there. He hasn't been able to work it into his schedule, but he hopes eventually to get out there."

■ Reporter Les Blumenthal can be reached in Washington, D.C., at 202-383-0008 or via e-mail at blumietac@aol.com

Air sampler shut off during Hanford test; state asks why

By the Herald staff

The Washington Department of Health is investigating why an air sampler designed to detect tritium was turned off during a melting test of obsolete nuclear bomb components in Hanford's 300 Area.

The amount of tritium released during the April 14-17 test was less than 20 curies, according to the Department of Energy, which also is investigating the matter. A commercial building exit sign contains 20 to 25 curies, said DOE spokesman Mike Talbot.

The releases resulted in no public health effects, said Al Conklin, manager for radioactive emis-

sions for the state. However, questions remain about who ordered the air sampler turned off, why and whether such a shutdown was legal and proper, said Bob Rosselli, DOE's assistant manager for science and technology.

Conklin said it is possible a violation of state emissions permitting regulations occurred. But he added the investigation is just beginning.

The building's air plasma furnace was used to see if tubes containing tritium could be melted.

The test successfully converted the weapons components into glass and slag to be stored in 55-gallon barrels. Eventual disposal of those barrels is still undetermined.

Fluor Daniel pays \$140,625 for PFP troubles

By John Stang
Herald staff writer

Fluor Daniel Hanford has paid a \$140,625 fine to the Department of Energy for troubles at the Plutonium Finishing Plant.

Hanford's lead contractor opted not to challenge the fine, which DOE levied in March, Fluor spokesman Mike Berriochoa said Wednesday.

It is the biggest DOE fine against a Hanford contractor.

The bulk of the fine — \$112,500 — is for problems with plutonium handling at the PFP.

The rest — \$28,125 — covers emergency response problems during May's chemical tank explosion at the PFP that exposed 10 workers to chemical fumes.

Most of the PFP's 4.4 tons of scrap plutonium is in a vault — with the rest scattered among the PFP's ducts, labs and gloveboxes.

Hanford tank waste program under fire

By John Stang
Herald staff writer

Massive job cuts at Hanford no longer are proposed for 1999, but money set aside for a future tank waste glassification project could be slashed.

U.S. Rep. Duncan Hunter, R-Calif., said Monday that he won't propose cutting Han-

ford's cleanup budget from anywhere between \$136 million and \$273 million. That would have trimmed an estimated 1,250 to 3,100 jobs.

Hunter, who is chairman of a key budget-setting House committee, credited U.S. Rep. Doc Hastings, R-Wash., with talking him out of his original proposal to cut cleanup money for 1999.

However, Hunter would like to gut the money set aside for the tank-waste glassification program. Originally, the Department of Energy wanted \$330 million set aside for future work. It could be cut by \$230 million to end up at \$100 million.

The reason for the proposed cuts is the two corporate teams working on glassification want up to two more years of design work

before contractually obligating themselves to costs, Hunter said.

But the proposed glassification funding cuts worry the Washington state Department of Ecology and the two corporate teams.

The state is unsure how the unfolding glassification funding picture will affect the project's ability to meet its legal dead-

lines, said Mike Wilson, ecology's nuclear waste program director.

In any case, the House's National Security Committee's defense procurement subcommittee, of which Hunter is chairman, will meet today to discuss Hanford's 1999 budget.

See **Hanford**, Page A2

Battelle scientists create new dry cleaning method

By the Herald staff

Carbon dioxide, which puts the fizz in a can of pop, can be used in a new environmentally friendly way to dry-clean clothes, say researchers at Pacific Northwest National Laboratory in Richland.

The cleaning method discovered at the lab is to be commercialized under an agreement with MiCELL Technologies Inc., a North Carolina firm specializing in cleaning and coating solutions.

Scientists at Battelle came up with the idea of using carbon dioxide, a colorless, odorless, tasteless gas, as part of their research on the unusual properties of materials under different combinations of temperatures and pressures. Compressed carbon dioxide has a density like water but flows like a gas, allowing it to reach places water and chemical solvents can't.

Now, the dry cleaning business cleans clothing using solvents that are hazardous chemicals. The new carbon-dioxide method uses no toxic substances.

"Once a garment is cleaned with this process, the detergents and carbon dioxide are recycled," said Nick Lombardo, a commercializa-

tion manager at the lab. "Very little of anything is discharged to the environment."

The process uses detergents developed by MiCELL to boost the cleaning power of the compressed carbon dioxide. MiCELL also plans to use the technology for coating metals and precision parts.

The company plans to begin selling its MiCARE Garment Cleaning System later this year. The system resembles a front-load washing machine and uses the MiCARE detergent and a stain repellent, if needed.

The system works more quickly than conventional dry cleaning and safely cleans a wider range of fabric, according to MiCELL.

"This is a great example of how fundamental research can end up in everyday products and processes," Lombardo said.

As part of the agreement with MiCELL, the Richland lab will provide MiCELL with continuing research, development and engineering support focusing on carbon dioxide chemistry. More applications of carbon dioxide are being investigated, including how they might be used in prescription drugs.

Tuesday, May 5, 1998

Hanford needs to cap costs, group says

Cleanup goals could be met by watching management, overhead expenses

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The Department of Energy would have enough money to meet all of its cleanup obligations if it firmly capped management and overhead costs at its sites and dropped plans to privatize much of the work, the head of a Hanford watchdog group said Monday.

"The department's claim it can't afford to comply with the nation's environmental laws is a myth," Gerald Pollet, executive director of Heart of America Northwest, said at a news conference.

Pollet co-authored a study for the Alliance for Nuclear Accountability criticizing the department's accelerated cleanup plan for the Hanford nuclear reservation and other Energy Department defense production sites. It concluded the

DOE could save \$1 billion a year across all its sites through stricter contractor supervision, cuts in allowable overhead charges and penalties for missing deadlines.

More than half of those savings could come if the Energy Department placed a "reasonable" cap of 30 percent of each site's budget on overhead and management costs, the study said.

While overhead and management costs at Hanford over the past several years averaged about 30 percent of the site's budget, Pollet said, those costs have started to creep up.

DOE and Fluor Daniel Hanford have pegged overhead costs at \$260 million in 1998.

But Pollet said it is actually closer to \$334 million because officials have shifted some of those costs to disguise the increase.

"What's clear is the department

lacks the commitment to manage its cleanup in a responsible way," Pollet said.

Meanwhile, figures from DOE's Hanford office stated that "indirect" costs — which are overhead plus some shared equipment costs — make up 30.3 percent of Hanford's budget in 1998. The predicted portion of indirect costs for fiscal 2000 is 28.4 percent, according to figures DOE made public earlier.

DOE's Richland office said the only "overhead" cost shifted from the indirect programs to direct cleanup programs from 1997 to 1998 was \$24 million to help pay for Fluor's performance fee to be awarded in the near future. Even with that shift, other indirect costs were cut \$18 million from 1997 to 1998, according to DOE.

DOE officials did not know where

Pollet's \$334 million figure came from.

Meanwhile, the alliance's report said privatization of the cleanup program, including that of the tank waste program at Hanford, would end up costing more than if the government did it because private contractors have to pay higher interest rates on the money they borrow to cover the upfront costs of the projects. The report also warns that British Nuclear Fuels could monopolize the department's cleanup efforts because it is owned by the British government and its financing costs are lower than U.S. companies. British Nuclear Fuels is one of two companies bidding on the contract to clean up the Hanford tank wastes.

"They are capturing contract after contract, and the department is creating a monopoly," William

Weida, an economics professor at Colorado College and Pollet's co-author, said at the news conference. "Eventually, there will be no competition and costs will go up."

However, BNFL spokesman Geoff Harvey said that corporation has picked up DOE contracts because of its technical expertise and good track record in the past.

"If superior performance is a crime, we're guilty," Harvey said.

Pollet said the department already has acknowledged under its latest cleanup plan, now called "Accelerating Cleanup: Path to Closure," that it will be unlikely to meet all the requirements of the various consent agreements it has signed, including the Tri-Party Agreement at Hanford.

But Pollet said by taking the steps outlined in his study and ending the privatization, there would be more than enough money to meet cleanup deadlines.

"DOE has a management gap, not a compliance gap," he said.

House panel OKs another \$30 million for Hanford

By Les Blumenthal and John Stang
Herald staff writers

WASHINGTON — A key House defense subcommittee provided an additional \$30 million for two projects at Hanford after the panel's chairman on Tuesday backed off his plan to cut up to \$300 million from the nuclear reservation's cleanup budget.

However, the House National Security Committee's defense procurement subcommittee slashed \$230 million from the administration's \$330 million request for a plan to turn over to private contractors the cleanup of the most dangerous wastes at Hanford — those held in aging and leaking underground tanks.

U.S. Rep. Duncan Hunter, R-Calif., the subcommittee's chairman, explained that neither the state, the Department of Energy nor the corporate teams seeking the tank waste contract had indicated such a funding reduction would delay the privatization effort.

"We're satisfied with that amount," said U.S. Rep. Doc Hastings, R-Wash., whose district includes Hanford. "No one has said \$100 million isn't enough."

However, officials from the state and the two corporate teams said Monday that they were worried the proposed massive cuts would send discouraging signals to Wall Street investors about Congress' willingness to support over several years the expensive conversion of tank wastes into glass.

And state and Hanford officials continued to express concern this week that the subcommittee has made cuts that will make it impossible for the department to meet deadlines set for Hanford cleanup.

The subcommittee, meeting behind closed doors because it was considering national security issues, approved a defense authorization bill for the next fiscal year that, overall, provides stable funding of about \$6.3 billion for the Energy Department to clean up its defense production sites, including Hanford.

"We have gotten away from the hills and valleys of the past and convinced the House that stable funding is where we should be," Hastings said.

Hunter had considered cutting the department's environmental management budget by \$500 million to \$1 billion to beef up Pentagon spending.

In a press release late Monday, Hunter said he had backed off a \$300 million cut at Hanford alone.

Battelle sheds light on chinook spawning

By Mike Lee
Herald staff writer

Using the Hanford Reach as a model of a healthy river, Battelle scientists now believe the Snake River has fewer spawning grounds for fall chinook than experts had thought.

Just how much less isn't clear yet, though the last three years of tracking where fish spawn is increasing scientists' ability to understand why fall chinook prefer some areas over others.

Billy Connor, U.S. Fish and Wildlife fish biologist in Idaho, is working with Battelle scientists and says the ongoing study is important for the future of the federally protected Snake River fall chinook.

"What I am trying to get to is whether or not the low numbers of fish that are currently spawning in the lower Snake are due to the lack of habitat," Connor said. "We're trying to pinpoint the bottleneck, what's causing the problem."

Even if the loss of spawning habitat doesn't turn out to be the major factor in the chinook's decline, at least the new study will show fish managers ways to help restore the runs, Connor said.

Dave Geist, research scientist at



Photo courtesy Battelle

White circles in the water indicate the location of salmon nests, or redds, near Locke Island on the Hanford Reach. By matching this 1994 aerial photo with others taken in later years, scientists have determined fall chinook spawn in the same places year after year.

Pacific Northwest National Laboratories operated by Battelle, said his study shows salmon are picky about where they build their nests, called redds.

He and co-workers Dennis Dauble, Chris Murray and John Nugent are trying to find unknown

factors that make the Hanford Reach the prime fall chinook spawning section of the Columbia River. Their study, started in 1994 as Geist's doctoral thesis, is about three-fourths complete.

"The traditional models of spawning are important, but only

up to a point," Geist said. "The simplistic characteristics that they use cannot represent the complexity of spawning habitat found in rivers like the Columbia."

More than 25,000 fall chinook returned to the Reach each year from 1983 to 1996, with as many as 90,000 in 1987. Since 1975, said Geist, Snake River fall chinook returns have numbered an average of 1,500, even though they are biologically close to their Reach relatives.

"Because there are so few fish (on the Snake), we never get a good idea of how much habitat fish require to spawn," Connor said. "The best idea we could come up with for a carrying capacity on the Snake was to look at the Hanford Reach."

Traditional models say four factors determine if an area is good for salmon spawning: water depth, velocity, river bottom material and river bottom slope.

Said Connor: "When you use these habitat modeling approaches, the tendency ... is to markedly overestimate how much habitat there is."

For instance, in the 51 miles of river above Richland, salmon only

See **Chinook**, Page A2

Hanford tritium release confirmed by state

The state Department of Health verified Wednesday that less than 20 curies of radioactive tritium was released April 14-17 when an air sampler was shut down in a 300 Area building during tests on a furnace.

Details remain a government secret, preventing Al Conklin, manager for radioactive emissions for the state, from discussing the exact amount of tritium released.

However, the total radiation released did not pose a public health risk, Conklin said.

The state is looking at two violations of state and federal regulations because the tests were not properly monitored.

Fines for the violations could run as much as \$80,000, but Conklin doubts the penalty, if any, will be that high.

The tests were to see if a Building 324 furnace could safely and efficiently melt tubes containing traces of tritium.

Wednesday, May 6, 1998

Fine considered for Hanford tritium release

By Annette Cary
Herald staff writer

Two state and federal regulations were violated in the unmonitored release of a small amount of tritium into the air in April at Hanford, the state Department of Health has determined.

It is considering fining the Department of Energy under the Clean Air Act.

The release most likely did not pose a threat to health, said Al Conklin, manager for radioactive emissions for the state health department. But the state is concerned workers sidestepped regulations designed to protect the public, he said.

Workers in Hanford's 300 Area shut off an air sampler from April 14 to 17 while obsolete nuclear bomb components were melted in a test furnace. The weapon parts had trace amounts of tritium, which the sampler was designed to detect as the tritium was released into the air.

State and federal regulations required the emissions from the furnace be monitored periodically, Conklin said. The project was small enough that continuous testing was not required.

The second violated regulation required a special permit for the tests, Conklin said. The test furnace had permits only to burn buried waste from DOE sites, not weapon components, Conklin said.

DOE officials have said less than 20 curies of tritium were released based in the amount of weapon parts melted. In comparison, a commercial building exit sign contains 20 to 25 curies.

The burning was in Building 324, which is a few miles north of Richland city limits and near the shore of the Columbia River. The off-site dose would have been so low it couldn't be measured, Conklin said. However, he has not seen classified documents yet showing what materials were melted to verify DOE estimates of tritium releases.

The state has the authority to fine \$10,000 for each of the two violations for each of the four days, bringing the maximum possible fine to \$80,000.

"Whether and how much of a fine (to levy) still remains a big question mark," Conklin said. However, he doubts it will be as high as \$80,000.

"We want to get their attention but do not

want to be accused of taking away vital cleanup money and stopping another important project," he said.

Tuesday, John Wagner, DOE Hanford manager, started an independent evaluation of the incident.

At the time the sampler was turned off, workers thought they were in full compliance with regulations, said Debbie Trader, the director of science and technology for DOE. B&W Hanford Co. operates the facility with the test furnace, but Pacific Northwest National Laboratory conducted the tests.

In the future, contractors will work more closely with state regulators, asking if plans conform to regulations before work is done, she said.

"If we would have done that, we would have understood the concerns from (the state)," she said. "There was not any intent to sidestep or go against any regulations."

The building where the tests are run usually has continuous air sampling for tritium, Conklin said. No work with tritium is being done in the building, but there are residual amounts of it there.

Over an 80-hour period while the tests were

run, the sampler was shut off. When the tests were finished, the sampler was turned on.

The DOE evaluation is planned to determine why the sampler was shut down. Conklin said it may have been because of concern that the data involving weapons parts was classified and workers did not want to collect and handle classified data.

But Hanford has routinely handled classified data and Conklin has clearance to see the data, so that should not have been a problem, he said.

Building 324, where the tests were run, has an air plasma furnace originally designed to melt mixed radioactive wastes for DOE's sites in Savannah River and Idaho Falls. Both sites have opted for other technologies.

The tests were to see if the furnace could safely and successfully melt 200, 8- to 12-inch-long tubes from disassembled nuclear weapons at DOE's Pantex plant in Texas. The tests successfully converted the weapons components into glass and slag to be stored in barrels.

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

Hanford receives additional \$77 million

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The House National Affairs Committee took a major step Wednesday toward closing the gap in funding the Department of Energy faces as it tries to meet Hanford cleanup deadlines by providing the site an additional \$77 million.

The committee also agreed to cap overhead costs at Hanford for contractors, subcontractors and so-called enterprise companies — and scolded the department for

adding to those costs through unnecessary regulation.

Both Rep. Doc Hastings, R-Wash., whose district includes Hanford, and Rep. Adam Smith, D-Wash., the state's sole member on the committee, said they were more than satisfied.

"This was a slam dunk," Hastings said, adding the additional funding will allow DOE to move forward with critical compliance projects.

The additional Hanford funding was included in the defense authorization bill

approved by the committee. The bill is to be considered on the House floor by the end of the month.

In the days leading up to Wednesday's committee meeting, Rep. Duncan Hunter, R-Calif., the influential chairman of the defense procurement subcommittee, had suggested cutting the Hanford cleanup budget by \$300 million. Such a reduction could have led to 3,000 layoffs and brought the cleanup work, except on major projects, to a virtual halt.

Hastings, along with other Washington

state lawmakers and lawmakers from other states with DOE facilities in their districts, convinced Hunter not to make Draconian cuts at Hanford and elsewhere.

But Hunter did include in the bill a sharp reduction in the \$330 million the department had sought to help underwrite its effort to turn the cleanup of underground tank wastes at Hanford over to private contractors.

The committee cut the department's request by more than two-thirds, to \$100 million. Although there was concern

the reduction would send the wrong signal to Wall Street investors about congressional support for privatization, there was no major hue and cry.

In proposing its Hanford cleanup budget for fiscal 1999 — which begins Oct. 1 — the department conceded it would be \$87 million short of what is needed to meet all the deadlines in the Tri-Party Agreement, Hastings' office said.

That agreement between DOE, the state

See **Hanford**, Page A2

New Fluor Daniel Hanford president introduced

By John Stang

Herald staff writer

Ron Green is leaving his post as president of South Carolina-based Fluor Daniel Power to become the new president of Fluor Daniel Hanford, effective May 15.

"This is a massive challenge, a big assignment," Green said Wednesday in Richland.

The Fluor Corp. tapped Green, 50, in late April as its first choice to succeed Hank Hatch at Hanford.

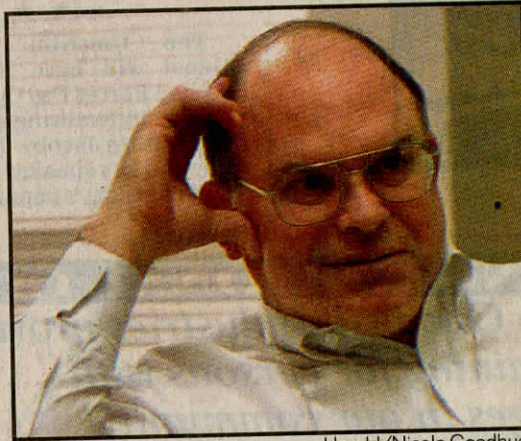
Hatch resigned to take a job offer from an undisclosed East Coast organization. He declined to elaborate, citing an agreement with that organization to let it handle the announcement and timing.

Meanwhile, the Department of Energy had to approve Green's selection, which it did Wednesday morning. Green learned of that approval at 12:05 p.m. Wednesday while spending the week at Hanford.

"I have known Ron personally for 22 years, during which time he has shown himself to be an innovative thinker, dedicated professional and strong leader. Strong project leadership has been the hallmark of his career," said John Wagoner, the Department of Energy's Hanford manager.

"He's a pretty intense engineer type of guy," Wagoner added.

DOE views Fluor Daniel Hanford's top management as a key part of its contract with the federal agency.



Herald/Nicole Goodhue

Ron Green, the new president of Fluor Daniel Hanford, formally introduced himself Wednesday to the public. He starts work May 15.

Consequently, Wagoner and other DOE officials — including Deputy Energy Secretary Betsy Moler and acting cleanup czar Jim Owendoff — scrutinized the expertise and track records of Green and Fluor's backup candidates.

Green expects to make some changes, but not do a major overhaul on the seven-company Hanford cleanup team that Fluor leads.

"I will put my stamp on the organization, on how it is set up. But I don't see a big reshuffling," Green said.

He is setting up a "transition team" including Mike Yates, Fluor Daniel Hanford's executive vice president, to "determine how we will align ourselves," Green said.

That team's work should be done "in 30 days or so without us missing a beat on doing the (cleanup) work," he said.

Green said: "The No. 1 job is to ... bring in a little more commercial knowledge to the way we manage projects (at Hanford)."

He said those new commercial ideas come from other complicated projects he has managed — outside of the DOE system but on the same scale as Hanford. Green has discussed some of those ideas with Wagoner.

He declined to elaborate Wednesday, saying he needs to learn more about Hanford before formally proposing new practices.

The importing of new commercial practices is what DOE wants Fluor to try in an effort to improve efficiency at Hanford, Wagoner said.

Green praised Hatch for leading Fluor in winning the Hanford cleanup contract and in the complex overhaul of how work is done at the site.

"I don't feel like I've come into a situation that is disadvantaged, broken or unhealthy. Hank

See **Fluor**, Page A2

THURSDAY, MAY 7, 1998

TRI-CITY HERALD

A5

Fluor lunch marks safety milestone

By the Herald staff

Fluor Daniel Hanford plans a celebration today in honor of reaching 2 million work hours without having an accident serious enough to cause an employee to miss a day of work.

Fluor Daniel Hanford's 620 employees and 35 subcontractor employees who work directly for the company reached that mark at the end of March. The accident-free period began when Fluor took over Hanford on Oct. 1, 1996.

"Since this period covers our entire tenure at Hanford thus far, I am especially pleased," said Fluor Daniel Hanford President Hank Hatch. "Remember, that this period involved a great deal of change, new relationships and stress. Yet our people stayed focused on the No. 1 goal of this project: working safely."

Workers are invited to a barbecue luncheon today outside the company's headquarters building in honor of the milestone.

Wagoner considers K Basins extension

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

WASHINGTON — The Department of Energy is reviewing whether to extend by two years the schedule for cleaning up two basins near the Columbia River that hold heavily corroded canisters of highly radioactive nuclear fuel, Hanford's manager said Thursday.

John Wagoner, testifying before the Defense Nuclear Facilities Safety Board, said the department is considering extending the schedule not because of any new problems at the K Basins but as a contingency against funding shortfalls.

Wagoner's comments came less than a week before a House subcommittee that has been highly critical of cost overruns and delays at the K Basins is to have a hearing.

Wagoner's testimony came before a board that also has been critical of the Energy Department's environmental program, particularly the effort at the K Basins and the Plutonium Finishing Plant at Hanford. The board was established by Congress to provide independent oversight of the department's cleanup programs.

John Conway, chairman of the board, and other board members indicated they are not satisfied

with progress on the K Basins and the PFP. They also said they were concerned about a recent management change at Fluor Daniel Hanford and still didn't like the new so-called "integrator" contracts such as the one Fluor has at Hanford.

Conway and the other board members also said they didn't understand the reluctance of the Energy Department to notify the president and Congress that critical projects were being delayed because of a lack of funding.

"Why hasn't it happened?" Conway asked.

See K Basins, Page A2

U.N. ambassador likely next DOE chief

From Herald news services

WASHINGTON — The Clinton administration has asked U.N. Ambassador Bill Richardson to become secretary of energy, and he is leaning toward taking the job, U.N. sources said Thursday.

Word spread through Washington, D.C., that Richardson was poised to resign to move to the Energy Department. Barry Toiv, a White House deputy press secretary, said the reports "are at the least premature and could turn out to be wrong. This decision has not been made yet."

Another administration official, speaking on con-

dition, of anonymity, said, "It's not done yet. I think it will. Smart money's on that happening." Another source familiar with Richardson's thinking said the switch was probable.

Richardson, a former Democratic congressman from New Mexico, has been the top contender for the energy job being vacated by Federico Peña, who announced April 6 that he would leave the Cabinet this summer.

Toiv said Richardson "would be a very strong candidate" given his experience as a lawmaker from New Mexico, where energy issues are critical.

Metro/Northwest

A3

Tri-City Herald

Saturday, May 9, 1998

Briefly

Compiled by the Herald staff
and from news services

Former Richland athlete dead at 58 in California

A former Richland athlete who went on to play for the Dallas Cowboys and Philadelphia Eagles died Thursday at the University of California at Los Angeles medical center.

John Meyers, 58, was waiting for a heart transplant. He was all-state football and basketball while playing for Columbia High, which was since renamed Richland High.

In 1958, Meyers led Richland to the state basketball championship.

He went on to be all-conference lineman at the University of Washington and went to the Rose Bowl in 1960 and 1961.

He played six years in the National Football League.

Locke gives tentative support to new Hanford mission

By John Stang
Herald staff writer

Gov. Gary Locke appears to be more receptive than before to the possibility of mixed-oxide nuclear fuel being produced at Hanford.

An April 30 letter from Locke to Energy Secretary Federico Peña says "Hanford ... could contribute toward international disarmament regarding plutonium disposition."

Hanford's possible role in that scenario would be creating mixed-oxide reactor fuel using plutonium from dismantled nuclear weapons.

Tri-City leaders interpret the carefully worded letter as Locke changing an earlier stance and sending a signal to the Department of Energy that the governor no longer opposes such a proposition.

Locke spokeswoman Carolyn Duncan said the governor's office did not want to elaborate beyond what is written in the letter, saying,

"It speaks for itself." She also cautioned against reading too much between the lines in it.

Sam Volpentest, executive vice president of the Tri-City Industrial Development Council, and Richland Mayor Larry Haler both said the April letter goes back to a July 17, 1997, letter from Locke to Peña.

In that letter, Locke voiced concern about DOE's ability to meet its cleanup commitments at Hanford. The governor wrote he had qualms about adding new missions such as plutonium disposition or dealing with radioactive wastes from other DOE sites.

"I find it extremely difficult to even consider any new role for Hanford in dealing with nuclear materials or waste," Locke wrote in 1997.

But in the past few months, groups from TRIDEC, the Hanford Communities — which is a coalition

of Mid-Columbia governments — and labor met with Locke on a few occasions.

They talked with Locke about continuing to support full funding for Hanford's cleanup, the proposed medical isotope production mission for the dormant Fast Flux Test Facility as well as the mixed-oxide fuel proposal.

His recent letter appears to do that.

The mixed-oxide proposal comes from DOE looking for ways to get rid of the nation's weapons-grade plutonium.

Options under consideration include either reprocessing plutonium into a mixed-oxide nuclear fuel or immobilizing the plutonium into a ceramic or glass.

DOE is looking at four potential sites.

Hanford, with its never-used Fuel Materials Examination Facility, is

one. The other three are DOE's sites at Savannah River, S.C.; Idaho Falls, Idaho, and Pantex, Texas.

DOE will look at all four sites for mixed-oxide fuel fabrication facilities, and it will look at Hanford and Savannah River for the immobilization facility.

Both TRIDEC and the Hanford Communities asked Locke to write a new letter to Peña. They wanted the state to send DOE a stronger signal in support of new missions at Hanford.

In his April 30 letter, Locke continued to voice concern about DOE meeting its legal cleanup obligations.

But the letter also voiced cautious support for new missions. "The Hanford site can continue to make a contribution, providing that new programs not interfere with (DOE's) cleanup responsibilities," Locke wrote.

Locke also renewed his support for the medical isotope mission at FFTE.

But he said he also wants to look at how DOE sets up new missions across all of its sites.

"Washington is willing to do its share, but there must be a fully shared responsibility in this regard with other facilities across the country," Locke wrote.

Volpentest and Haler said the letter sends a signal to DOE that Washington, D.C., officials would be receptive to new Hanford missions if cleanup is not affected.

"I think it is a big help ... It lets it be known that (DOE) won't have opposition from the state, which is important," Volpentest said. "It opens doors for us to get new missions."

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

Cleanup gets boost in Senate

By John Stang
Herald staff writer

A U.S. Senate committee has recommended a nationwide environmental cleanup budget a little larger than what the Department of Energy originally requested.

But the same committee slashed money to be set aside for a Hanford tank waste glassification program from \$330 million to \$113 million — a cut similar to one made this week by a House committee.

The Senate Committee on Armed Services finished its recommendations for DOE's fiscal 1999 cleanup budget this week.

The recommendations are to go to the full Senate on Tuesday, according to the staff of U.S. Sen. Patty Murray, D-Wash.

Unlike its U.S. House counterpart, the Senate committee did not break down its recommendations by individual DOE sites.

However, Murray's staff said the national cleanup budget recommendation is for \$5.5 billion for 1999.

In February, DOE submitted a request for \$5.05 billion for environmental cleanup at its defense sites nationwide — including \$1.11 billion for Hanford.

The Senate committee's recommendation came the same week as House committees added \$107 million to DOE's cleanup budget request for Hanford.

But the House committees also recommended \$100 million be set aside to eventually pay one or two corporate teams to convert Hanford's tank wastes into glass. The original request was for \$330 million, which would be used to guarantee the companies would be paid for building their plants.

This "privatization" concept calls for the teams to build glassification plants by 2002 and not get paid until glass logs actually are produced.

So far, \$285 million has been set aside through 1998 to make those payments, which are expected to total several billion dollars.

The two corporate teams and the Washington Department of Ecology have voiced concerns about not enough money being set aside now to avoid having to call for extra large appropriations after 2002.

But congressional members and staffers said potential contractors told them they could live with the recommended set-aside amounts.

Thursday, May 7, 1998

Hanford recycled

Port sells
first going

Protect Your Estate
from Taxes and Probate

2nd ANNUAL
HABITAT FOR HUMANITY
GOLF TOURNAMENT

Beware hit-and-run guidance

By Scripps-McClatchy Western Service
Does "don't let the door hit you on the way out" describe how you handle problem employees? Would you like to become a kinder, gentler Darth Vader? Overhaul your hit-and-run approach. Hit-and-run supervisors spot an

If this description fits you, you're reacting rather than acting. Although there is nothing wrong with using a reasonably well-aimed verbal two-by-four on an employee who just does not get the point, most supervisors aim better when they take five minutes to calm down and plan what they want to say. When you see an employee mess

Other

Adams Credit Individual of the Year by the Tri-Cities Credit Association. She works at Consumer Credit Counseling Service, a certified home inspector from the Home Inspection Institute of America, which means he's maintained his certification for five years. —Compiled by the Herald staff

Certified ■ Thomas Dell, owner of Dell Enterprises in Kennewick, earned the senior designation as a certified home inspector from the Home Inspection Institute of America, which means he's maintained his certification for five years.

promised Wall Street big layoffs, watching their stocks rise as a result, but never followed through. "Some companies ended up removing a layer of people who were closer in place to the work than was imagined," said Andrew C. Gore, managing director of human resources at T. Rowe Price. "A manager is somebody who organizes the work for a group, who establishes priorities, who is able to order and execute. The fact is, we still need a lot of managers." Gore said the company will add about 500 employees this year to its General Electric Co. and International Business Machines Corp., have thinned out their management ranks, other firms large and small must have taken up the slack. The Bureau of Labor Statistics' data show that managers make up 14.2 percent of the work force, a 14 percent increase from the 1989.

1990s and now are rehiring for positions they once axed to improve their bottom lines. In other instances, the need for managers has increased with the growing complexity and globalization of the economy. Even the advent of labor-saving technology has created a need for a new breed of manager whose job is to make the technology work in the business world. And then there is the cynical explanation that some companies

bigger part of the work force than before the big management purge they were at the end of the 1980s, earlier this decade, according to the Bureau of Labor Statistics. "Bureaucracy is alive and well in the United States," said D. Quinn Mills, a professor of management at Harvard Business School. "In fact, managers and administrators and executives have been the fastest-growing employment category. It really contradicts what most people think."

PFP gets OK to move plutonium

By John Stang
Herald staff writer

Hanford is lifting its self-imposed moratorium on moving scrap plutonium within the Plutonium Finishing Plant.

Workers were allowed in late April to start moving, inventorying, repackaging and analyzing plutonium at the plant.

Additional restrictions are expected to be lifted around July, so PFP can start using its furnaces to convert the scrap plutonium to a safer powder form.

Hanford officials hope to have the site operating at full speed by October.

This restart is the result of a massive overhaul in identifying problems, fixing procedures and going over training.

"The PFP is definitely a safer place for workers today than it was 20 months ago," said Larry Olguin, a project director at Fluor Daniel Hanford.

The moratorium began in January 1997, when B&W Hanford officials saw a string of safety problems with procedures for moving scrap plutonium within the plant. B&W manages PFP for Fluor.

The company, with Fluor's and the Department of Energy's blessings, stopped the movement of plutonium in order to overhaul procedures and training.

The broad scope and complexity of the overhaul — plus distractions caused by a May 1997 chemical tank explosion — led to the long fix-it period.

The PFP holds 4.4 tons of plutonium. Most is in a vault, with the rest scattered among PFP's ducts, labs and gloveboxes.

The plutonium is supposed to be moved in special cans to furnaces that turn the scrap into a glassy powder to be stored in the vault.

The plutonium handling problems accounted for \$112,500 of a recent \$140,625 fine that DOE recently levied on Fluor for various PFP troubles.

By the time the PFP reaches full speed in October, the plant will have operated for 20 months under some restrictions.

That will hurt the PFP's chances to meet a 2002 deadline to have all its scrap plutonium stabilized into safer forms.

Hanford health, safety expo planned

By John Stang
Herald staff writer

The fourth annual Hanford Health & Safety Exposition next week is the first in which organizers are trying to attract the general public.

In the past, the expo has concentrated mostly on Hanford workers. Anyone else was usually a student on a field trip or a family member who tagged along.

And what can people expect to see at the Wednesday and Thursday expo at Pasco's Trade, Recreation and Agricultural Center?

The list ranges from looking at what goes on at Hanford, to home safety demonstrations, to health and fitness subjects, to an elaborate life-sized mockup demonstration of a drunken driving accident with ambulances and the jaws of life.

"There's lots of hands-on stuff," said Cliff Led-

ford of Fluor Daniel Hanford, one of the organizers.

Another organizer, Tracy O'Neal of Fluor, cited her 11-year-old daughter as an example why people may want to attend. "This gives her some firsthand knowledge of what Hanford is about. ... Also, she can learn things that she can apply at home."

Admission is free, and hours are from 7:30 a.m. to 7 p.m. Wednesday and from 7:30 a.m. to 5 p.m. Thursday.

About 140 booths and demonstrations have been lined up — compared with 89 that participated in the first expo in 1995.

The expo originally was a collection of safety demonstrations and safety equipment vendor booths that was put together by an committee of Westinghouse Hanford Co. employees with a shoestring budget of under \$12,000.

Today's budget is about \$25,000. Although a seven-company team led by Fluor took over Hanford from Westinghouse in 1996, essentially the group of employee volunteers supervises the expo.

Exhibits will include child fingerprinting, chiropractic safety, aerobics and karate demonstrations and snakes and spiders collected by the Hanford pest management people.

A hodgepodge of other exhibits is to include 4-H and elderly activities, boating safety, lawnmower safety and thermal imaging equipment that fire departments use to find people in smoke-filled buildings.

Hanford-related exhibits include a look at site safety features and various vendors demonstrating equipment.

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Retired Hanford worker wins Rockwell Award

A retired Hanford employee recently received the Rockwell Award, the highest honor given by the Radiation Protection and Shielding Division of the American Nuclear Society.

Wilbur Bunch of Richland worked at Hanford from 1951 through 1995, making major contributions to the field of radiation characterization and shielding. Those lifetime contributions led to the Rockwell Award.

He worked for General Electric Co., Battelle-Northwest and Westinghouse Hanford Co. and was greatly involved in the design, construction and evaluation of the Fast Flux Test Facility.

He has written numerous articles and served on several committees in this field.

K Basins accident blamed on human error

By John Stang
Herald staff writer

An investigation of a January accident at Hanford's K Basins that caused \$10,000 damage to a crane cost \$140,000 and determined human error was the cause.

The investigation completed last week determined the accident happened when a K Basins auxiliary crane was jammed into the bracket holding a bigger crane, said Judy Graybeal, Fluor Daniel Hanford spokeswoman.

The accident stalled some modification work on the main crane for a few weeks.

The accident occurred on a concrete bay next to the K West Basin pool, which holds part of the 2,300 tons of radioactive spent nuclear fuel that is to be eventually transferred to an underground vault in central Hanford.

The two K Basins are a few hundred feet from the Columbia River.

DE&S Hanford is in charge of the project as a subcontractor to Fluor Daniel. The companies, along with the Department of Energy, handled the investigation.

The 32-ton main crane can go over the pool to pick up fuel and other items from it — and was being modified to remove the fuel assemblies, Graybeal said.

The main crane has a 3-ton auxiliary crane hoist attached to it to pick up and move equipment.

The main crane was shut down on Jan. 23 for repair work on the auxiliary hoist.

But when the auxiliary hoist was turned on Jan. 29, it extended too far and jammed into the bracket structure of the main crane.

The incident did not take place over the pool of radioactive water, Graybeal said, and the main crane was not damaged.

The investigation took a long time because an electronic memory device had to be sent back to the manufacturer to analyze what went wrong, Graybeal said.

Repairs and modifications have been made, and the crane is being tested this week.

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Tuesday, May 12, 1998

Briefly

Compiled by the Herald staff
and from news services

EPA, state plan overall Hanford inspection

About 30 federal and state inspectors began an overall check of Hanford on Monday to look at how it is complying with federal and state environmental laws.

This will be the first "multi-media inspection" of Hanford performed by the U.S. Environmental Protection Agency.

The EPA routinely conducts these inspections at large facilities with numerous waste sources. State and other federal agencies often help. Hanford's turn happened to surface, said EPA spokesman Bob Jacobson.

Such inspections look at a combination of environmental features pertaining to soils, water and air — including checking permits and inventories. The state ecology and health departments are assisting the EPA with the Hanford inspection.

The inspection is expected to take weeks to complete, Jacobson said. And the inspection's results might not be ready for months.

No results will be announced until all the information is reviewed, according to the EPA.

Top officials to testify on K Basins cleanup

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

WASHINGTON — A congressional subcommittee whose chairman has been critical of the performance of Hanford contractors and the Department of Energy, opens a hearing today on cost overruns and schedule delays in cleaning up two nuclear fuel storage basins at Hanford.

Among those scheduled to testify are top officials of both current and former Hanford contractors, including LaMar Trego, former head of Westinghouse Hanford Co.; John Norris, chief executive officer of Duke Engi-

neering and Services, and Ronald Peterson, group president for government, environment and communications at Fluor Daniel.

Fluor Daniel is the current prime contractor at Hanford, and Duke Engineering is the subcontractor in charge of cleaning up the K Basins. Westinghouse was Fluor's predecessor as prime contractor at Hanford.

Scheduled to testify for DOE is Undersecretary Ernest Moniz, the department's third-ranking official. John Wagoner, head of the Richland Operations Office for DOE, is to accompany Moniz. The witness list also includes John Conway, chairman of the Defense Nuclear Facility Safety Board; Rep.

Doc Hastings, R-Wash., whose district includes Hanford; Marilyn Reeves, who chairs the Hanford Advisory Board, and Gary Jones, an associate director of the General Accounting Office, Congress' bipartisan investigative arm.

Rep. Joe Barton, R-Tex., and his subcommittee on oversight and investigations of the House Commerce Committee, launched an investigation earlier this year into the K Basins cleanup after the project's cost jumped by \$274 million to more than \$1 billion and its completion date slipped 19 months to 2003.

Last week, Wagoner told the Defense Nuclear Facility Safety Board that DOE is

considering extending the completion date for an additional two years as a hedge against any funding shortfalls or the discovery of any new problems. Wagoner gave no indication any new problems had been discovered, nor did he indicate whether the cost of cleanup would rise. The basins, located about 400 yards from the Columbia River, hold corroded canisters of highly radioactive nuclear fuel and have previously leaked more than 15 million gallons of contaminated water.

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K Basins cleanup costs keep climbing

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — The cost of cleaning up two huge water-filled basins that hold thousands of tons of highly radioactive nuclear fuel next to the Columbia River at Hanford may increase by an additional \$276 million to almost \$1.4 billion, a congressional subcommittee was told Tuesday.

And a new schedule now being reviewed by the Department of Energy would extend

by two additional years to 2005 the date for completing the K Basins cleanup.

Those estimates are on top of estimates given just five months ago that pushed the then-estimated cost up another \$274 million and delayed the project 19 months.

All told, the new schedule means the cost of project — one of the top safety priorities at Hanford — would have increased roughly 80 percent since 1995, and the completion date would have slipped by 51 months. In 1995, DOE estimated the cost

at \$814 million and said work removing the corroding fuel would be done by 2001.

And John Wagoner, DOE's Hanford manager, told the subcommittee Tuesday that the department is not convinced the latest schedule and cost estimate will hold.

"We do not yet have a high confidence in that schedule," Wagoner said in testimony before the oversight and investigations subcommittee of the House Commerce Committee.

However, the president of Duke Engi-

neering & Services, which is in charge of the K Basins cleanup and which prepared the latest schedule and cost estimate, said he would be willing to bet the company's potential profits that it will prove accurate.

"I am willing to put every dollar, every bit of profit on that schedule," said John F. Norris Jr., Duke's president. "We are willing to live by it."

Norris said his company's analysis found there is a 90 percent chance the new schedule and cost estimates will be met.

Norris' confidence in the latest revised schedule is much higher than in the one Duke proposed only five months ago. That schedule, which added 19 months to the completion date and \$274 million to the cost, was accepted by the department even though Duke had warned it had only a 19 percent chance of being achieved.

"Why would the department sign off on something that had only a 19 percent

See **Basins**, Page A2

HANFORD

THURSDAY, MAY 14, 1998

TRI-CITY HERALD

A9

PFP explosion workers still seek answers

By John Stang

Herald staff writer

Winston McCulley remains frustrated and angry.

In the year since he was exposed to fumes from a Hanford chemical tank explosion, he had to wait 11 months for some key medical tests. He and eight fellow workers hope the most recent studies at last will determine whether they face long-term health problems.

"We've been fighting (Hanford) for a year. ... Basically, they've been stalling us, putting us off," McCulley said Tuesday.

The mistrust from the May 14, 1997, Plutonium Finishing Plant explosion continues to haunt efforts to resolve the workers' concerns.

"No one involved could have foreseen how difficult it would be to overcome that mistrust and put medical arrangements — which are complicated anyway — into place," said Jon Brock, chairman of the Hanford Joint Council for Resolving Employee Concerns.

As the explosion's first-year anniversary arrives today:

- Blood samples were taken in late April of the exposed workers and nine other people in a control group. The samples will be analyzed for chromosome damage that could lead to long-term health problems, including cancer.

- The nine workers are in Carlsbad, N.M., this week to be checked by a whole body counter — a device that measures radiation emitted by radioactive substances inside a person. But McCulley said he and the others arrived to find out the equipment looks only at lungs, not the whole body.

The workers' concerns began during the confusion spawned by the explosion.

The seven, who were on a crew McCulley led, were given conflicting instructions right after the blast. They ultimately walked from a trailer outside of the main PFP building through chemical fumes to a rendezvous room in the complex.

They wanted to be examined immediately at

Kadlec Medical Center in Richland. But the workers ended up driving themselves to Kadlec about five hours later. Then they did not receive blood and urine tests they asked for because Hanford and Kadlec emergency room personnel did not believe the tests were needed.

In addition, nasal smears — swab samples taken to check for contamination — were taken that night, but a misunderstanding delayed testing of the smears for a month.

Such problems undermined the Department of Energy's and Fluor Daniel Hanford's credibility with McCulley, his seven fellow Fluor Daniel Northwest workers and a Fluor Hanford radiological controls technician who also was at the scene.

As a result, the nine did not trust any clinics or medical checks linked with Hanford — and wanted an independent medical evaluation.

The nine reported they had headaches, rashes and hearing problems. Today, McCulley said, he still has a hard-to-describe "very weird sensation" in his ears, a problem some of the others share. And some still suffer rashes, he said.

Eventually, the Hanford Joint Council — normally a mediation committee on Hanford whistleblower matters — stepped in to try to bridge the gap between the workers and management.

The workers finally decided to look for an outside research facility on their own and picked William Au, a professor and researcher of chemical and radiation exposure at the University of Texas Medical Branch at Galveston, to check them out.

The joint council brought in its own experts.

All this led to numerous and complex questions and negotiations among the workers, the council and the various experts.

For Au, one key is the chromosome tests, which Fluor originally said were not necessary. It took 11 months to iron out and arrange a mutually agreeable set of tests.

Earlier this year, nine Hanford employees — with similar ages, jobs, health profiles and

smoking habits to the nine exposed workers — were selected as a control group for the tests.

Meanwhile, Brock said extra care and consultation are needed with the genetic tests and the whole body counts. The joint council's experts warned the tests have to be analyzed in context with other tests and factors, Brock said.

The council's experts say the tests still will produce usable results one year after the explosion, Brock said.

But McCulley disagreed, saying one New Mexico whole body count expert told him too much time has passed to produce satisfactory results.

The whole body counter checks are being done at the Carlsbad Environmental and Monitoring Research Center run by New Mexico State University because the workers did not want to be tested in the Tri-Cities, and the equipment at Galveston was not set up to look for plutonium.

Au said the clinical test results could be available soon, although confidentiality rules likely will keep them secret.

Four of the Fluor Northwest workers and the Fluor Hanford technician have kept their Hanford jobs.

Three workers were laid off, and one was terminated, according to Fluor Northwest spokesman Jerry Holloway, but he declined to elaborate because of personnel regulations.

Holloway said Fluor will continue to pay for all tests and other follow-up work, regardless of each worker's employment status.

McCulley said he was the fired worker and was dismissed at the beginning of April. He said he was supposed to be transferred elsewhere at Hanford, but the only slots offered were in the 200 West Area, where PFP is located.

He did not want to return to a contaminated facility.

"Mentally and emotionally, I could not go back there anymore."

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Hanford ordered to check handling of toxic emissions

By Kim Bradford and John Stang

Herald staff writers

Instead of levying a fine, the state Health Department wants Hanford to check about 150 state permits to make sure hazardous emissions are not being improperly overlooked like the recent tritium release.

That was the stiffest part of the state's punishment of the Department of Energy for an April incident in which a tritium emissions sampler was improperly disconnected during a classified melting test of nuclear weapon components in the 300 Area.

DOE has 60 days to do the checks.

The state issued the order Wednesday, which also called for DOE to keep tritium emission samplers on line and to modify its permit for a Building 324 furnace to allow for melting nuclear weapons parts.

Two violations occurred — turning off the sampler and melting nuclear weapon components without a proper permit.

The potential fines could have totaled \$80,000, although the state never seriously considered hitting DOE with the full amount.

DOE is evaluating the order and believes it is too early to comment on specifics, said Debbie Trader, DOE's director of science and technology.

The order stems from Pacific Northwest National Laboratory conducting a melting test in Building 324 — managed by B&W Hanford — to see if a plasma arc furnace could safely and successfully melt 200, 8- to 12-inch-long tubes from disassem-

bled nuclear weapons at DOE's Pantex plant in Texas.

The classified nature of the parts led PNNL to huddle with B&W to decide to turn off the tritium emissions sampler on the building from April 14 to April 17. The classified amount of released tritium was less than 20 curies.

The small amount of tritium did not disturb Al Conklin, manager for radioactive emissions for the state. The public's health was not threatened, he said. But the intentional release of airborne radiation 1½ miles from Richland without consulting the state did bother him.

"My first reaction was 'Shades of the Green Run,' although it was not of that magnitude," Conklin said.

The "Green Run" of the late 1940s was Hanford's most famous secret intentional release of airborne radiation — and is the symbol of numerous releases from the 1940s to the early 1970s.

Conklin said turning off the sampler didn't appear to be an intentional end run around state laws — but a decision made in ignorance.

DOE officials said not all the appropriate people were consulted before the decision was made to turn off the sampler.

"At the time the decision was made, the belief was that we were in compliance," Trader said. "If we were to look back at it, we would not have made the same decision."

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Thursday, May 14, 1998

Battelle gets contract to help repair Chernobyl

By Annette Cary

Herald staff writer

Battelle, along with two other companies, has been awarded a \$20 million management contract to help protect the world from more contamination from the 1986 Ukraine nuclear disaster.

The announcement was made Wednesday by the European Bank for Reconstruction and Development. Battelle will do the work out of its Richland office, along with Bechtel National Inc. and Electricité de France.

In 1986, fire and explosion at a Chernobyl nuclear reactor spewed radiation across the world, killing 31 firefighters and contaminating thousands of people. A shelter — called a sarcophagus — was cobbled together in seven months over

the gutted reactor to prevent the continuing release of radiation from the wreckage.

Now, scientists fear the 20-story concrete building is too heavy for its foundation and could collapse in an earthquake, sending a cloud of radioactive debris around the globe. It's also leaching radiation into the ground beneath it.

The three companies will manage a \$760 million project to stabilize the plant, build a new cover and remove radioactive fuel left in the wreckage. The work will convert the existing shelter and the remnants of the destroyed reactor "into a stable, confined and environmentally safe condition," said Dennis Kreid, manager of the Chernobyl Shelter Project for Battelle.

Battelle's role will include providing equipment and training in

reducing radiation doses, monitoring the potential of a radioactive flash, suppressing dust and industrial safety.

"Our team is extremely pleased to be selected for a job with such international significance," Kreid said.

Battelle already has two workers in the Ukraine and will have six by the end of the month. Other Richland employees will visit when their expertise is needed.

Awarding the contract has been delayed while liability concerns were worked out. However, the management team already has started work to award bids for some planning and design contracts.

The initial contract is for the first two years of work, with completion of work estimated in 2006. Eighteen countries have pledged \$337 mil-

lion toward the project over the next eight years. Ukraine has committed \$50 million.

Now, the sarcophagus has many cracks and holes in its walls and a roof that allows radioactive dust to escape. Birds fly in and out, spreading more contamination. Water from rain, snow and cleanup work not only causes structural corrosion, but also is turning some of the melted uranium fuel into radioactive dust.

The water also raises the risk of a so-called "criticality" accident inside the shelter. Monitoring has shown occasional increases in the neutron count rate, suggesting uncontrolled nuclear chain reactions might be taking place.

The accident 12 years ago was the most serious in the history of nuclear power. Operators doing a

test of the turbine generator system in the No. 4 reactor made mistakes which, exacerbated by Soviet design problems, created a tremendous surge in reactor power.

The sudden release of energy ruptured the reactor's fuel rods and pressure tubes and produced a steam explosion that blasted the reactor core and its 2,000-ton shielding 45 feet into the air.

The explosion destroyed the reactor building, severed the reactor's cooling system pipes and spewed hot fragments of graphite and reactor fuel from the core.

With the fall of the Soviet Union, the name Chernobyl was changed to Chornobyl, the traditional Ukrainian spelling.

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DOE proposes extension on pumping waste tanks

By John Stang

Herald staff writer

The Department of Energy has proposed a four-year delay on finishing the pumping of Hanford's 149 single-shell radioactive waste tanks.

DOE sent the proposal to the Washington Department of Ecology and the U.S. Environmental Protection Agency in an April 15 letter discussed Wednesday at a Hanford Advisory Board health, safety and waste management committee meeting in Richland.

The EPA and state have not responded to the proposal, which is intended as a fix-it plan for Hanford falling far behind on pumping out the wastes.

Hanford has 54 million gallons of waste in 177 tanks — 149 single-shell tanks considered unsafe and 28 safer double-shell tanks.

So far, 119 tanks have been pumped. The Tri-Party Agreement — the pact under which the state and EPA enforce Hanford's cleanup — calls for all 149 to be pumped out by September 2000.

However, pumping is to be under way on 17 more tanks this year. DOE already has begun pumping three and hopes to add two more.

Consequently, the 2000 deadline appears unobtainable. And under the Tri-Party Agreement, DOE is supposed to come up with a remedial plan for the EPA's and state's approval.

Also Wednesday, the Hanford board committee learned:

■ Fluor Daniel Hanford believes DE&S Hanford Co. has addressed enough problems leading to cost and timetable increases to become more optimistic about the troubled project to remove 2,300 tons of spent nuclear fuel from the K Basins.

Meanwhile, Fluor must recommend to DOE by May 29 whether DE&S Hanford should be kept as the K Basins' subcontractor or if the contract should rebid. DE&S Hanford's current contract expires Sept. 30.

■ DOE does not expect to make its recommendations on two glassification projects to Congress until mid- to late June. Originally, those recommendations were expected between late April and late May.

Two corporate teams have submitted proposals to build plants to convert the tanks' wastes into glass with the facilities going on line in 2002. Congress is leery about the "privatization" aspect to the estimated multibillion-dollar venture in which DOE requests Congress to set aside money now to make super-huge payment after 2002.

Originally, all four metric tons of plutonium were to be stabilized — meaning converted into a safe powder or otherwise made safer — by that date.

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

PFP explosion changed Hanford

One year later, officials believe site is safer

It's Your Call:

Has Hanford improved safety practices since the PFP explosion?

Page A3.

Workers:

Frustration continues for the employees exposed to chemicals. Page A9.

By John Stang

Herald staff writer

The amount of chemical liquid wasn't much — maybe enough to fill the gas tanks of four Suzuki Swift compact cars.

It puddled somewhat forgotten in a tank on the fourth floor in an obscure corner of Hanford's Plutonium Finishing Plant.

The water it contained kept evaporating, increasing the concentration of other chemicals.

Then one year ago today, the less than 35-gallon mixture of hydroxylamine

nitrate and nitric acid exploded.

It was the biggest Hanford accident of the decade, if not longer. It set off a furor — though the turmoil apparently has made the federal site safer today.

The past year has seen finger pointing, internal and external investigations, and fines. It also has produced a massive inventory of Hanford's chemicals and an overhaul of emergency response training and procedures.

Effects of the explosion continue to reverberate with the nine workers who still

believe they were sickened by the blast.

The PFP explosion created distrust. It started intense soul-searching among Hanford managers. And it showcased numerous chemical inventory problems and exposed an unprepared emergency response system.

It also led to Hanford being hit with two fines totaling \$138,125.

The May 14, 1997, explosion of Tank A-109 has become one of the defining events in Hanford's history, an event that officials say

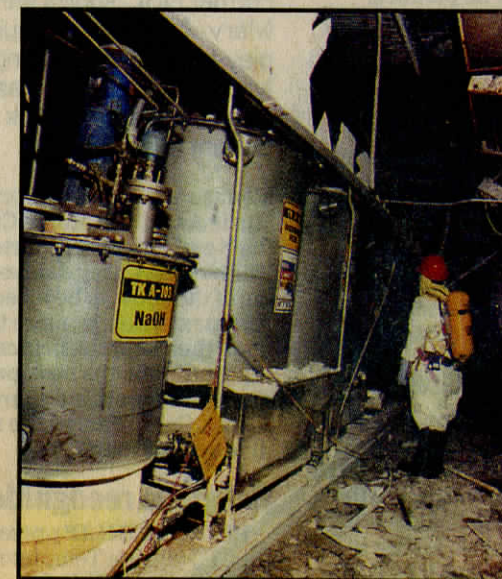


Photo courtesy of the Department of Energy

A Department of Energy investigator surveys the damage soon after a chemical explosion one year ago at Hanford's Plutonium Finishing Plant.

See Hanford, Page A2

Public workshops to address Hanford water cleanup plans

By John Stang
Herald staff writer

Two public workshops to help plan Hanford's subterranean water cleanup plans are set for next week.

The workshops were discussed Thursday in Richland during a Hanford Advisory Board environmental restoration committee meeting.

The workshops are:

■ From 1 to 4 p.m. Wednesday at the office building at 451 Hill St. in north Richland.

The Department of Energy and various other Hanford interests and agencies will talk about how a

massive vadose zone and ground water planning effort can be meshed with the Columbia River Comprehensive Impact Assessment.

The assessment is an ongoing effort to figure out how Hanford's contaminants will affect people and wildlife along the Columbia River.

■ From 8 a.m. to 4 p.m. Thursday at Battelle-Northwest's ETB Building on Q Avenue in Richland.

Bechtel Hanford Inc. and DOE want to discuss with Hanford interests and the public what the master planning should look at and how the public should get involved.

The workshops are part of efforts to put together a master plan tying together all of Hanford's individual ground water and vadose zone monitoring and cleanup programs. The vadose zone is the subterranean area between the surface and aquifer.

Hanford has several programs looking at various pieces of this puzzle, and Bechtel is in charge of coming up with this master plan by October.

Also Thursday, Hanford board committee members voiced concern about the possibility Hanford's environmental restoration program — managed by Bechtel — might be drastically cut in fiscal

2000 to meet federal budget targets.

The federal Office of Management and Budget has set a fiscal 2000 budget target for DOE to meet. And DOE's Washington, D.C., headquarters has set a \$1.07 billion budget for Hanford, with \$961 million in programs controlled by the Richland office and \$109 million controlled by Washington, D.C.

Right now, this is strictly a budget planning scenario with the actual draft 2000 budget to be unveiled in early 1999. But this scenario translates to a \$183 million shortfall of what is needed to meet Hanford's legal cleanup obligations, according to DOE's Richland office.

Consequently, DOE is looking at trimming Bechtel's roughly \$137 million annual budget to \$86 million in 2000 to compensate. While DOE officials have said Bechtel's programs have momentum going, other Hanford programs are tackling higher-priority risks.

Bechtel and DOE officials said \$149 million would be needed in 2000 to meet all of Bechtel's environmental cleanup obligations, and \$166 million would speed up its momentum.

Bechtel's environmental restoration program tackles ground water decontamination, moving contaminated soil and debris to a special

central Hanford landfill, and doing the final decontamination and sealing of eight defunct reactors along the river.

Under an \$86 million budget, the reactor work and some of the soil and ground water work would be postponed.

Dennis Faulk, a Tri-City EPA official, said, "To take the brunt of the cuts out of (environmental restoration) doesn't seem a prudent thing to do. I would not slice programs that have had tremendous success down to a (minimal) level."

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

Hanford enterprise companies shrinking instead of growing

By John Stang
Herald staff writer

The six Hanford enterprise companies that were created to attract new business to the Tri-Cities appear to be shrinking a bit.

The greatest hit was taken by Fluor Daniel Northwest, the biggest of the enterprise companies, according to Department of Energy figures distributed Friday afternoon at a Hanford Advisory Board financial affairs committee meeting in Richland.

The figures indicate the enterprise companies have shrunk from 2,293 to an estimated 2,011 employees from fiscal 1997 to fiscal 1998.

And the volumes of those firms' Hanford work declined from \$228 million in fiscal 1997 to a predicted \$204.3 million in fiscal 1998.

The enterprise companies are supposed to create non-Hanford jobs.

But the DOE figures distributed Friday said the number of non-Hanford jobs in

the six firms dropped from 113 to 96.

The enterprise companies are six spin-off firms created by the six original members of Fluor Daniel Hanford's corporate team.

Most of the people from the old ICF Kaiser Engineers Hanford Co. and Boeing Computer Services, plus some former Westinghouse Hanford Co. employees, were set up in the six "outside-the-fence" companies.

The idea is these companies get at least two years of major Hanford contracts — possibly more if their contracts are renewed — while they build enough outside business to wean themselves from Hanford and become permanent Tri-City firms.

Hanford board committee members voiced concerns Friday that no decision has been made on whether to renew at least five of the six contracts. They noted that 4½ months remain on the two-year contracts, which have one-year options to renew.

Fluor wanted to renew the contract of

B&W Protec, which handles Hanford's security. But DOE wants the contract rebid. The two still are discussing B&W Protec's fate.

Fluor made its recommendations on the remaining enterprise companies to DOE, but DOE still is reviewing the proposals, said George Champlain, a contract specialist working for DOE. Information on Fluor's recommendations wasn't available Friday.

Here are the figures on the individual companies:

DE&S Northwest

This company was split into two parts — one to handle all Hanford jobs and one to handle all non-Hanford work.

The Hanford section shrank from 45 workers in 1997 to 38 in 1998. The non-Hanford section went from 42 to 51 workers.

The amount of Hanford business went from \$5.7 million to \$5.9 million. The non-Hanford business figures were not available.

Fluor Daniel Northwest

Its staff shrank from 1,270 in fiscal 1997 to 1,032 in fiscal 1998. The non-Hanford jobs dropped from 54 to 30 from 1997 to 1998.

Its Hanford work volume dropped from \$132 million in 1997 to \$102 million in 1998. Hanford accounted for 95 percent of its work in 1997 and 92 percent in 1998.

Lockheed Martin Information Services

Its staff grew slightly from 498 in 1997 to 504 in 1998. Non-Hanford jobs remained steady at seven.

Hanford accounted for 99 percent of its work in 1997 and 1998.

SGN Eurisys Services Corp.

Its staff grew from 110 to 124 from 1997 to 1998. The non-Hanford staff shrank from seven to six.

SGN Eurisys' Hanford business dropped

from \$11.3 million to \$11.1 million. Hanford made up 96 percent of its business in 1997 to just under 94 percent in 1998.

Waste Management Northwest

Its Hanford staff grew from 96 to 97. Its non-Hanford staff went from two in 1997 to one in 1998.

It did \$10.7 million in Hanford business in 1997 and \$10.4 million in 1998. Hanford made up 98 percent of its business in 1997 and 88 percent in 1998.

B&W Protec

Its staff went from 180 to 165 from 1997 to 1998 — with its non-Hanford staff steady at one.

It did \$12.8 million worth of Hanford business in 1997 and \$15.9 million in 1998. Hanford accounted for 99.7 percent of its business in 1997 and 100 percent in 1998.

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

Cutting FFTF budget would be costly, supporters say

By Annette Cary
Herald staff writer

Cutting the budget of the Fast Flux Test Facility will cost money in the long run because new employees will have to be hired and trained to either shut down or restart the reactor, according to supporters of keeping the research reactor.

But the most significant cost will be to those seeking cancer cures, said members of the American Nuclear Society's Eastern Washington Section at a Friday press conference.

Breakthroughs in using medical isotopes that could be produced in the Hanford reactor can help cancer and heart disease patients only if the United States has a reliable, high-quality source for the isotopes, they said. But cutting the

budget, as proposed for fiscal 1999, would delay production of the medicine for two years, they said.

Hanford is awaiting a decision on whether the reactor will be permanently shut down or whether the Department of Energy will take the next step needed toward restarting it, developing an environmental impact statement.

If no decision is made by the time Energy Secretary Federico Peña leaves office June 30, the reactor will move to minimal standby status. That would entail a budget of about \$31 million and a cut of about 100 jobs.

To keep the reactor ready to go in hot standby status as it is now would cost about \$10 million more.

Once a decision is made either to restart it or start the technical process of shutting it down, those jobs will have to be filled again and

workers trained. Ken Dobbin of the Nuclear Society estimated that would cost about \$40 million over two years.

The proposal currently being considered by DOE would use the FFTF in the near term to produce tritium, which boosts the power of nuclear bombs. That mission would keep the reactor, now in its prime, operating while it also produces medical isotopes and, supporters believe, the demand for the medical isotopes grows.

Opponents of the plan have called the medical mission a front to make the production of tritium at the reactor more acceptable to the public.

"I'm sick and tired of naysayers saying we don't need these isotopes," said Mel Chapman, director of labor relations for Advanced Nuclear and Medical Systems.

Already on the market are drugs that use medical isotopes to alleviate the pain of cancer when it migrates to the bones and a new treatment for prostate cancer.

In 1995, 4 percent of prostate cancer patients were treated with medical isotopes in implanted "seeds." Biomedical Business International predicts that to increase to 36 percent by 2005. The treatment has proved as effective as surgery, but without the side effects and at half the cost, said Stan Scott of the Nuclear Medicine Research Council.

He expects the market for medical isotopes for therapeutic uses to reach \$660 million by 2005. The demand for medical isotopes for diagnosing disease — a common use now — could reach \$1.6 billion, he said.

The isotopes will continue to be

important for cancer treatment even if new anti-angiogenesis drugs that cut off blood supply to tumors work as well as early indications, said members of the nuclear group. The anti-angiogenesis drugs will still leave remnants of cancer behind, including cells that have moved elsewhere in the body.

"The machine is in its prime; it's an absolutely premier machine," said Gerry Woodcock, chairman of the Eastern Washington Section. "It would be an absolute travesty to shut it down."

Now, the United States imports almost all the medical isotopes it uses, many of them from an aging nuclear plant in Canada.

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

Fluor's removal of 'cure notice' on subcontractor concerns DOE

By John Stang
Herald staff writer

Fluor Daniel Hanford has enough confidence in DE&S Hanford Co. to cancel a "cure notice" against the subcontractor — an action that means DE&S's contract is in less jeopardy.

But the Department of Energy is still skeptical about whether problems with the K Basins cleanup are being fixed and wants more information on why the notice was lifted.

The K Basins project involves the removal of 2,300 tons of spent nuclear fuel from two indoor pools of water near the Columbia River and moving it to a huge underground vault in central Hanford.

DOE has given Fluor until May 29 to recommend whether DE&S Hanford's two-year contract to manage the K Basins project should be extended.

The "cure notice" was a letter that Fluor sent to DE&S in December noting several management concerns related to the escalating costs and timetables of the K Basins project.

The letter included a notation that DE&S could lose its contract if improvements were not made.

Since 1995, the estimated cost of the K Basins cleanup has grown from \$814 million to \$1.4 billion, and the completion date has moved from 2001 to 2005. DE&S has been in

charge of the project since late 1996.

On May 7, Fluor President Hank Hatch wrote to DOE Hanford Manager John Wagoner that DE&S had made enough progress and has plans for future improvements — all justifying lifting the cure notice.

Hatch wrote that lifting the notice does not mean all problems have been resolved — and future failure could lead to "further adverse contract action" by Fluor.

Hatch's letter included a list of personnel and management improvements made by DE&S — and a second list of management problems still needing improvement.

That list of still-unresolved problems bothers Wagoner.

He sent back a letter to Fluor voicing concerns about the escalating cost estimates — and voiced less confidence than Fluor had in the latest calculations.

Wagoner noted Fluor must give DE&S at least three months notice if it wants to put the K Basins' contract out for bids. And DE&S Hanford's two-year contract expires Sept. 30.

As a result, DOE wants Fluor to recommend to the federal agency by May 29 whether the contract should be re-bid. DOE would make its decision soon afterward.

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

State, EPA send letter Hanford cost-cutting p

By John Stang
Herald staff writer

The state and U.S. Environmental Protection Agency are protesting potential major cuts in Hanford's cleanup being considered for fiscal 2000.

The EPA and the Washington Department of Ecology sent a letter Thursday to the Department of Energy "to voice our alarm" at the budget priorities the federal agency has outlined for Hanford's funding in 2000.

The potential 2000 cleanup budget would fall \$183 million short of what Hanford needs to meet its legal cleanup obligations.

"Funding shortfalls of this magnitude would result in vital cleanup work being deferred with very little, if any, possibility that schedules can ever be recovered," wrote Chuck Clarke, EPA regional administrator, and Tom Fitzsimmons, the state ecology department's director.

DOE's Washington, D.C., headquarters is proposing a \$1.07 billion cleanup budget for Hanford, with \$961 million in programs controlled by the Richland office and \$109 million controlled by Washington, D.C.

The actual draft 2000 budget will be unveiled in early 1999, but so far, the state and EPA don't like what they see.

Their letter criticizes:

- Shortfalls in the tank farms program to prepare and pump out waste for eventual glassification.
- The escalating costs and slipping timetables in removing spent nuclear fuel from the K Basins — introducing uncertainty into the overall budget.
- Massive possible cuts in the environmental restoration program — soil and ground water cleanup, plus decontaminating and sealing off old reactors.

This program has shown progress, which would largely disappear to pay for other programs, the letter argued.

■ The possibility DOE might not fund the Hanford Advisory Board, grants to Washington and Oregon, payments in lieu of taxes to local schools and governments, and efforts to declassify document. These programs generate public involvement and good will that "more than justifies their \$7 million cost," the letter stated.

The letter said DOE "appears to be heading for an overall funding level which would be insufficient to even maintain the status quo, let alone make real progress in resolving Hanford's pressing environmental problems."

DOE Hanford Manager John Wagoner said the letter gives him extra ammunition in trying to convince

Tri-City farm jobs rising, DOE study finds

By John Stang
Herald staff writer

Total employment in the Tri-Cities is expected to jump by 665 jobs this year — providing an additional \$7 million in annual income, according to a report released Friday.

Agriculture accounts for all the predicted increase in Tri-City jobs in 1998, the study found.

Nonfarm economic diversification efforts by the Tri-City Economic Development Council and other agencies are expected to offset Hanford-related layoffs but not bring any net growth.

The economic analysis was commissioned by the Department of Energy to determine the effects of Hanford's shrinking work force on Benton and Franklin counties.

Directly or indirectly, Hanford accounts for 36 percent of the jobs in the two counties — 30,300 out of 84,800 jobs.

Hanford's influence is even higher in dollars. While directly and indirectly providing a little more than a third of the Tri-City area's jobs, the nuclear reservation accounts for a full 67 percent of the local annual wage income — \$1.49 billion out of \$2.24 billion, according to the DOE analysis.

The figures address Hanford jobs and area jobs created by Hanford's ripple effect — such as retail, construction and repair business.

Budget cuts at Hanford are expected to trim 1,880 jobs in the Tri-Cities, including jobs on site and in businesses feeling the ripple effects, said DOE Hanford Manager John Wagoner.

important and might consider letting DOE off the hook on other programs in order to fund those, Wagoner said.

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

Fluor official ends Hanford tenure

Friday was Hank Hatch's last day as the first president of Fluor Daniel Hanford.

His replacement, Ron Green, is to become president officially Monday. However, Green is on vacation next week, so executive vice president Mike Yates will be acting president that week, according to Fluor.

Hanford Environmental Restoration

Your comments
are requested
on...

Notice of Intent to Delete a Portion of the Hanford 100 Area NPL

EPA is proposing to delete over 150 square miles of the Hanford Site 100 Area from the National Priorities List (NPL). Two operable units, the Riverland Rail Yard (100-IU-1) and the Wahluke Slope (100-IU-3) are being considered for deletion from the U.S. Department of Energy's 100 Area NPL Site. This proposed deletion is the first for the 100 Area and is considered a partial deletion under EPA policy. EPA invites you to comment on this proposed notice of intent to delete. A 30-day public comment will be held from May 22 through June 20, 1998.



Your comments
are requested
on...

Safe Storage of 100 Area Reactors (105-DR and 105-F)

The U.S. Department of Energy, U.S. Environmental Protection Agency and the Washington State Department of Ecology are seeking public comment on an engineering evaluation/cost analysis that evaluates the proposed final disposition of the 105-DR and 105-F Reactor facilities (excluding the reactor blocks) and the ancillary facilities. The 105-DR and 105-F Reactors are located along the Columbia River on the Hanford Site. Public comments will be accepted on the documents from May 18 through June 18, 1998.



Tri-Party Agreement

To request a copy of the proposed deletion or engineering evaluation/cost analysis documents or for further information, please contact:

Dennis Faulk

U.S. Environmental Protection Agency
712 Swift Boulevard, Suite 5
Richland, WA 99352
(509) 376-8631
E-mail: Dennis_A_Faulk@rl.gov

OR CALL TOLL FREE:

Hanford Cleanup Line
1-800-321-2008

You are invited
to attend...

GROUNDWATER/VADOSE ZONE INTEGRATION PROJECT WORKSHOP - May 21, 1998

You are invited to attend a workshop to discuss the Hanford Groundwater/Vadose Zone (GW/VZ) Integration Project. The workshop will be held from 8:00 a.m. - 4:00 p.m. on Thursday, May 21, 1998, in the Columbia River Conference Room, first floor of the Pacific Northwest National Laboratory Environmental Technology Building (ETB) at 3200 Q Avenue in Richland. Site security badges are not required to access the building.

Workshop Agenda

8:00 - 8:15am	Welcome and Introductions
8:15 - 9:45am	Purpose of GW/VZ Project
9:45 - 10:00am	BREAK
10:00 - 11:45am	Mission, Vision and Goals of GW/VZ Project
11:45 - 1:00pm	LUNCH (brown bag, purchase lunch here)
1:00 - 2:00pm	Columbia River Comprehensive Impact Assessment (CRCIA) Requirements
2:00 - 2:30pm	GW/VZ Project Public Involvement Process - ideas and options
2:30 - 2:45pm	BREAK
2:45 - 3:45pm	Public Involvement Process (continued) - proposed charter
3:45pm	Closing Comments

If you are unable to attend the meeting, but would like to be involved via teleconference, please call 1-800-664-0771 and ask for the Groundwater/Vadose Zone conference call. You can dial in at any time during the workshop and stay connected for as long as you wish.

If you require additional information, please contact:

Bryan L. Foley

U.S. Department of Energy
P.O. Box 550
Richland, WA 99352
(509) 376-7087

Locke pens Hanford cleanup concerns to Clinton

By John Stang

Herald staff writer

Gov. Gary Locke is requesting President Clinton's "attention and leadership" on environmental cleanup at Hanford.

In an April 30 letter, Locke voiced concerns in a general way about cleanup funding levels set by the federal Office of Management and Budget being below what is needed at Hanford.

The OMB sets the overall cleanup budget targets, from which the Department of Energy sets preliminary targets for each site, including Hanford.

The preliminary target for Hanford's cleanup budget is \$1.07 billion, which DOE believes is \$183 million short of what the site needs to meet its legal cleanup obligations.

Consequently, Locke wrote he is worried about DOE's ability to keep cleanup on the schedule set by the Tri-Party Agreement, which is the pact governing Hanford's legal cleanup obligations and timetables through 2028.

"I urge you to make the cleanup of Hanford and (DOE's) other nuclear weapons sites a top priority on your environmental agenda and to ensure that (DOE) has sufficient

cleanup funding and the strong and effective leadership it needs to succeed," Locke wrote.

Clinton is expected to soon appoint a replacement for outgoing Energy Secretary Federico Peña, who is scheduled to leave June 30.

Bill Richardson, the U.S. ambassador to the United Nations, is considered the front runner for this post.

Several other high-ranking DOE posts, including cleanup czar, currently don't have permanent appointees in them.

Locke's letter referred Clinton to Hanford's top two problems — the leaking underground radioactive

waste tanks in central Hanford, and the 2,300 tons of spent nuclear fuel in the K Basins, which are two indoor pools about 400 yards from the Columbia River. One pool has leaked in the past.

"Hanford's contamination and waste pose an ominous threat to the Columbia River and to the people of both Washington and Oregon. This is very much a public health issue as well as an environmental issue," Locke wrote.

Locke also recently wrote a similar letter to Peña.

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

Tri-City employment down, most lost from Hanford

By Melissa O'Neil

Herald staff writer

The Tri-Cities has lost about 700 jobs since April 1997 — more than half of them at Hanford.

But last month's employment statistics show growth in farm, farm-related, construction and service jobs.

The statewide unemployment rate dropped to 4.2 percent in April, the lowest level for that month in 32 years. The rate generally measures the percentage of the adult population seeking work.

The Tri-Cities came in with a 6.6 percent unemployment rate — an improvement from last month's 7.3 percent, according to the report released Tuesday by the state Employment Security Department. In April last year, the rate was 7.1 percent.

"The rate of unemployment has improved, but it's not so much the economy. It's less competition for jobs," said Dean Schau, the state labor economist based in Pasco. In April, 2,462 people received unemployment benefits. In March, it was 2,967. Last April, the count was 2,317.

Tri-Cities nonfarm jobs down from year ago

	April '97	March '98	April '98	% change over year
Farm	10,720	8,580	10,890	+ 1.6%
Nonfarm	70,400	68,900	69,700	- 1.0%
Total	81,120	77,480	80,590	-0.7%

SOURCE: Employment Security Department

Herald/Sherry Emery

"When compared with April of last year, the Tri-City economy was down by 700 jobs," Schau said. "But this was overstated by 200 due to an unusual down month for one firm in food processing."

Another 100-job dip from March was in the public school system.

The state keeps a close watch on school jobs, considering enrollment a fairly accurate indicator of population, Schau said. Tri-City schools have been hiring over the past several years. But the April numbers show a slowdown in growth. The 5,531 count is just six more than a year ago.

"Looking at the Tri-City economy, I see a lot of mixed movement,"

Schau said. "Hanford every month is stepping downward, but over the past couple months, it's been baby steps."

The Hanford nuclear waste cleanup site's inside-the-fence private sector had 9,115 workers in April. That was 24 fewer than in March, and down 380 from last April.

Farm jobs grew 27 percent since March, coming in with 10,890 workers. Last April, the farm total was 10,720.

"Much of the increase was in vegetables that reflected the beginning of the local asparagus crop," Schau explained. "May may see another 1,000 to 2,000 additional

workers as other harvest activities begin to ramp up — though a remarkably cool or cold May could possibly put some harm on local production and farm and worker income."

About 84 percent of April's 10,890 farm workers were people who live in the Mid-Columbia year-round, he said. More nonresident workers will come in as the growing season progresses, likely doubling the number of farm workers by June.

Meantime, nonfarm jobs — everything from machinists to marketers — grew by 800 from March to April.

"The very resilient Tri-City construction industry added 300 in April," Schau said, with construction coming in at 4,100 total jobs. "Some of this was due to better weather, some may be due to the annual maintenance of (Plant 2 at the Washington Public Power Supply System)."

A variety of services had increases adding up to 600 more jobs over the year, coming in at 19,800. Those industries include recreation, car repair and agricul-

tural services. Retail trade, especially restaurants, also were hiring last month.

Benton County posted 5.8 percent unemployment. Franklin County came in at 9.1 percent unemployment.

Rates elsewhere in the Mid-Columbia were: Yakima, 9.8 percent; Adams, 8.5; Walla Walla, 5.6; Columbia, 7.4; Grant, 7.7.

Among other cities and counties, the rates were: Seattle-Bellevue; Everett area, 2.7 percent; Bellingham, 5; Bremerton, 4.6; Olympia, 4.4; King, 2.7; Snohomish, 2.8; Island, 3.3; Spokane, 3.9; Tacoma, 4; Asotin, 3.8; Chelan-Douglas metro area, 7.5; Chelan, 8.2; Douglas, 6.2; Clallam, 7; Clark, 3.3; Cowlitz, 7.1; Ferry, 10.3; Garfield, 2.8; Grays Harbor, 8.3; Jefferson, 5.9; Kittitas, 6; Klickitat, 9.7; Lewis, 7.5; Lincoln, 4.3; Mason, 6; Okanogan, 9.8; Pacific, 8.1; Pend Oreille, 11.6; San Juan, 4.3; Skagit, 6.3; Skamania, 10.3; Stevens, 8.6; Wahkiakum, 5.3; and Whitman, 1.6.

■ Reporter Melissa O'Neil can be reached at 582-1531 or via e-mail at mo'neil@tri-cityherald.com

More species of bugs found at Hanford

By John Stang

Herald staff writer

The tally of previously undiscovered species of insects found at Hanford is up to 40 and probably climbing.

The newly discovered creatures are listed in the 1997 annual Hanford plants and creatures inventory report released Wednesday.

"We're expecting to find more," said Richard Zack, one of Hanford's insect surveyors and curator of the state's main entomological research collection at Washington State University.

About 5,000 of the survey's insect specimens still have to be examined.

The report is an annual update of the Nature Conservancy of Washington's efforts to inventory all the different types of plants, animals, birds and insects on Hanford's 560 square miles of primarily shrub steppe land.

This effort began in 1994 and is expected to be completed in 1999.

The work had to be mostly shelved in 1996 because of a lack of Department of Energy funds, which are financing the bulk of the inventory.

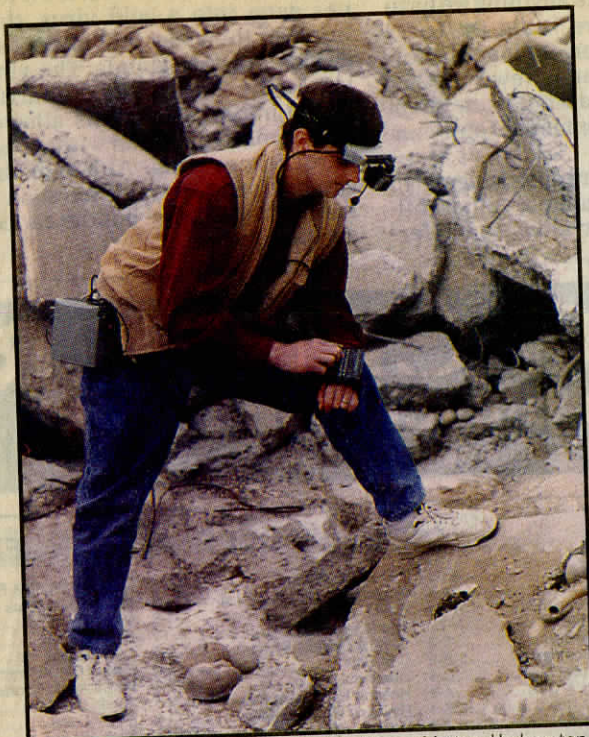


Photo courtesy of Pacific Northwest National Laboratory
Co-developer Brian Moon of Pacific Northwest Laboratory demonstrates the 'Team Leader' technology designed to assist law enforcement personnel with crime scene investigations.

Gore praises PNNL crime-fighting tools

By Annette Cary
Herald staff writer

Vice President Al Gore on Tuesday checked out a high-tech, portable crime investigation system developed at Richland's national laboratory.

He and three Cabinet members announced the Department of Energy had signed an agreement with the Department of Justice and the Department of Treasury to use technology developed at Pacific Northwest National Laboratory in Richland and other national laboratories to fight crime.

The scientific expertise of the national laboratories can help law enforcement agencies fight the evolving technological ingenuity of drug cartels, organized crime, cyberspace criminals and terrorists, Gore said at a press conference in Washington, D.C.

At the Richland lab, "we believe this is setting the stage for moving out new law enforcement initiatives at a national level," said Barry Merrill, technical resource manager of the National Security Division.

Over the past year, the Richland laboratory has been working with Northwest law

enforcement agencies, learning what technologies developed at the lab might have uses in fighting crime. In turn, the laboratory has offered its scientific expertise to police agencies that have tough crimes to solve.

That includes work still in progress to transfer 15 years of police data on the Green River murders in Seattle to new mapping computer technology developed for the Central Intelligence Agency. The hope is it will not just organize the information but also show new connections among data.

The technology demonstrated for Gore was developed in Richland for treaty inspectors investigating nuclear facilities overseas. The system, called "Team Leader," includes a headset with video and still camera and a portable computer attached to a belt or worn in a rugged, weatherproof vest.

Police officers, including Federal Bureau of Investigation officers, will be able to wear the equipment to investigate complex crime scenes without compromising evidence. The Richland laboratory is teaming with Mnemonic Systems Inc. to produce and market the equipment by the end of the year.

"Investigators could use the unit to track their routes and create a detailed 'map' of the scene," said Dan Irwin, project manager at the Richland lab. "Upon discovery of the murder weapon, investigators could link the evidence to its geographical position with laser measurements and positional data, capture still and video images and record detailed audio and text notes."

The information can be transmitted from the scene to a law enforcement office, where it can be recalled for a trial months or years later through a bar coding system.

An FBI agent wore the equipment Tuesday, showing its features to Gore, Energy Secretary Federico Peña, Treasury Secretary Robert Rubin, Attorney General Janet Reno and an audience of the national press. Several Richland laboratory officials also attended, including lab Director Bill Madia.

They also brought along Pasco Sgt. Jim Raymond to discuss the Tri-City Metro Drug Task Force's success using the Richland national laboratory's equipment for detecting clandestine drug operations.

See PNNL, Page A2

Fluor Daniel will accept bids on security contract

By John Stang
Herald staff writer

Fluor Daniel Hanford is preparing to put Hanford's security force contract out for bids—as ordered by the Department of Energy.

B&W Protec, the company currently holding the contract, plans to put in a bid, said the firm's president, Richard Loving.

About six weeks ago, DOE told Fluor it wanted B&W Protec's contract put out for bids. Fluor objected, saying it wanted to extend B&W Protec's contract.

But a recent letter from DOE Hanford Manager John Wagoner to then-Fluor president Hank Hatch, whose resignation went into effect Friday, put the contract out for bids.

Fluor spokesman Craig Kuhlman would not comment on the matter Wednesday, other than to confirm Fluor is preparing procedures for handling the bids.

B&W Protec employs 170 people and is one of Hanford's six "enterprise" companies spun off in late 1995. That means although its main

PFP chemical tank explosion.

He also cited a "marginal security survey rating" at the PFP, and B&W Protec's failure to complete a "new material control and accountability program" on time.

However, Loving said: "We're proud of our performance here. We think we've done a good job."

He said the PFP explosion-related problems came from B&W Protec working off checklists and procedures compiled by another subcontractor DynCorp Tri-Cities Services Inc. Improvements were made in those procedures in the explosion's aftermath, Loving said.

The marginal rating at the PFP is related to the overall longtime moratorium on moving scrap plutonium within the PFP, which recently was lifted, he said. B&W Protec's problems were a small part of the overall picture, and the firm's fix-it work could not be complete until the overhaul of the entire complex's procedures and training was done, he said.

The accountability program trouble was a computer software problem that B&W Protec inherited and that also existed elsewhere at other DOE sites, he said. B&W Protec helped identify the problems and fixed them, he said.

The two-year contracts of B&W Protec, the other five enterprise companies and Fluor's six major subcontractors expire Sept. 30. Fluor can recommend extensions, at DOE must sign off on them.

B&W Protec's contract recommendation is the only one Fluor has made public and that DOE has acted upon.

Reporter John Stang can be reached at 12-1517 or via e-mail at jstang@trityherald.com BC-OR-L0T—

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TRI-CITY HERALD

THURSDAY, MAY 21, 1998

METRO/NORTHWEST

Many share blame for delay of K Basins cleanup

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — While Fluor Daniel and Duke Engineering may be taking the heat for the almost doubled costs and 51-month delay in cleaning up Hanford's K Basins, the root of the problem reaches back to a 1995

Analysis — Department of Energy decision.

The basins along the banks of the Columbia River hold 2,300 tons of highly radioactive spent nuclear fuel stored in corroded canisters.

Along with the underground tanks holding millions of gallons of radioactive waste and the heavily contaminated Plutonium Finishing Plant, the K Basins are a top cleanup priority at Hanford because of the potential threat they pose to the river.

Tom Grumbly, who was the department's assistant secretary of energy for environmental management in 1995, was under pressure to get the K Basins stabilized and cleaned up as rapidly as possible and told then Hanford contractor Westinghouse to prepare a fast-track schedule.

Grumbly was also under pressure to hold down costs as Congress had

become increasingly hesitant about cleanup budgets that were approaching \$6 billion annually. Grumbly demanded a budget without contingencies.

"It was aggressive, and I thought it was achievable," John Wagoner, the Hanford site manager, said of the 1995 version of the K Basins schedule and budget during testimony before a congressional subcommittee last week.

But Wagoner's views were not shared universally.

"A schedule without contingencies is a cause for hearings like this," John Norris, Duke's chief executive officer, told the oversight and investigations subcommittee of the House Commerce Committee.

And, in a report released at the hearing, the General Accounting Office called the 1995 K Basins budget "unrealistic and overly optimistic."

LaMar Trego, former president of Westinghouse Hanford Co., said his staff was concerned the budget didn't have any contingencies, a standard practice, but Grumbly was insistent.

Neither Trego nor Wagoner nor officials of Fluor Daniel, Duke or the Energy Department's head-

quarters engaged in overt finger-pointing at the hearing.

In the end, it sounded as if DOE and its Hanford contractors simply were unable to plan and manage cleanup of the site.

"This type of unreasonable performance seems almost commonplace at DOE," said Rep. Joe Barton, R-Texas, the subcommittee chairman.

"Why is it that world-class companies turn into bumbling, second-rate companies capable of only asking for more money from the taxpayers when they get a DOE contract?" asked Pennsylvania Rep. Ron Klink, the subcommittee's ranking Democrat.

The subcommittee was once the most feared on Capital Hill, and its former chairman, Rep. John Dingell, D-Mich., took delight in striking fear into those called to testify. Though the committee's reputation for toughness has slipped some under Barton, Hanford has emerged lately as a prime target.

As word of the subcommittee's interest in the K Basins spread, Rep. Doc Hastings, R-Wash., whose district includes Hanford, convinced Barton to delay hearings by more than a month to give everyone a chance to cool off.

"I wish these hearings weren't necessary," Hastings told the subcommittee.

Though he tried to be positive about the future, he obviously was disappointed with the past.

"As the elected representative of the Hanford site, I find the delays and cost overruns troubling," Hastings said.

"Obviously, unanticipated technical issues have played a large role in the delays of this project. But for us to be here today, nearly two years after the new contractors took control, and to still not have a clear, identifiable path forward, is troubling to say the least."

Fluor and subcontractors such as Duke were brought in with much publicity by DOE with promises to get cleanup on track.

Norris offered any number of explanations for problems at the K Basins, including that Fluor and Duke were caught off guard because during the bidding process they weren't given adequate access to the site and weren't allowed to talk with the contractor then working on the project.

"We had a two-day bus tour (of Hanford)," Norris said.

In addition, a contractor transition that normally takes four to six

months was compressed to about two months, he said.

"There was no indication of schedule delays, and we were told not to slow down the momentum," Norris said. "We thought the technical issues had been resolved and there was an integrated contract."

But significant technical issues, particularly how to deal with aluminum hydroxide coating on some of the basins' spent fuel, have not been resolved and an integrated schedule is just now in place.

Fluor and Duke, who took more than a year to admit the problems publicly, share in the blame for delays and cost overruns. The subcommittee criticized Fluor for not being aggressive enough in managing the program and Duke for failing to take charge, particularly for not appointing a chief engineer.

"Everything points to Duke as the company which performed least well," Barton said. "Did you not put your best team on the field because you didn't think you had to?"

"Absolutely not," Norris said. "We sent in a top-notch team."

DOE drew its share of blame, not only for the 1995 schedule but also for bringing in a contractor to manage the site, then keeping such a close hold on the reins, the con-

tractor couldn't make a decision on its own.

DOE has given Fluor until May 29 to recommend whether Duke's contract should be renewed.

Fluor officials believe Duke has cleaned up its act. DOE has doubts.

"Strong corrective actions are being taken, but we are not convinced they are adequate," testified Ernest Moniz, DOE's No. 3 official.

DOE will have to decide whether it is serious about its much-ballyhooed contract reform, in which contractors are to be paid only if they perform.

The test of whether DOE is tough enough to enforce its pay-for-performance contracts was expected to come over Lockheed Martin's problems cleaning up the infamous Pit 9 at Idaho National Engineering Lab. Instead, the first test could come at Hanford, where Fluor's performance rating is due within a few weeks.

Fluor officials currently are arguing some of DOE's conclusions contained in a preliminary evaluation that has not been made public.

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5-22-98

Lockheed loses out on glassification plant project

By John Stang
Herald staff writer

The Department of Energy eliminated a group led by Lockheed Martin Advanced Environmental Systems as a builder of a waste-glassification plant, saying its technology did not have an established enough track record to risk a multibillion-dollar federal investment.

That leaves a team led by BNFL Inc. as the only one left to build and operate plants to convert some of Hanford's radioactive tank wastes into glass. Now, DOE will try to develop a contract with BNFL by June 30.

DOE announced Lockheed's elimination Thursday.

Budget: House approves higher budget for cleanup.
Page A3. DOE Hanford

Manager John Wagoner.

Hanford has 54 million gallons of wastes in 177 underground tanks — which are considered the site's biggest headache.

DOE asked a 10-company group led by Lockheed and a four-company group led by BNFL to put together design and financial packages by January to build plants by 2002 to convert the wastes into glass for safer storage.

The project's price tag still is hazy and still is being negotiated. But it is expected to cost at least a few billion dollars in the next several years.

Consequently, one of DOE's requirements is that the glassification plans use technologies with track records elsewhere — not new setups that still need research and development work.

Lockheed's package had too many pieces needing more research and development than DOE felt comfortable with, Wagoner said. "It was a very clear case as far as we were concerned," Wagoner said.

Wagoner declined to discuss details on how Lockheed fell short, saying those details will be included in a report going soon to Congress.

5-27-98

O'Leary tells court of DOE reprisals

By John Stang
Herald staff writer

Reprisals against whistleblowers — often by lifting security clearances — occurred at several Department of Energy sites in the early to mid-1990s, former Energy Secretary Hazel O'Leary recently testified.

This pattern was "agencywide," said O'Leary in a recent videotaped deposition, although she added she could not tell if that pattern was planned out.

O'Leary's videotaped deposition was played last week in federal court in Washington, D.C., during an Oak Ridge, Tenn., whistleblower's lawsuit against DOE.

Joe Carson, a DOE safety inspector, is alleging DOE trimmed some of his duties and is transferring him from Oak Ridge for raising safety concerns. DOE contends he is being disciplined for violating reporting procedures and harassing other workers, according to a recent USA Today article.

O'Leary's testimony mostly covered DOE and whistleblowers in general terms. When she cited specific cases, she did not elaborate much in detail.

O'Leary — who was Energy Secretary from 1993 to January 1997 — briefly mentioned Hanford three times in the 14-page transcript.

O'Leary testified she met her first group of whistleblowers in 1993 while visiting the Tri-Cities during the so-called "Hanford Summit" conference. After that meeting, she was invited to a whistleblowers conference in Washington, D.C.

O'Leary said she was impressed with the credentials and intelligence of the whistleblowers.

"It was to me extraordinary that these people had been interpreted to me (by DOE employees) as the crazies," O'Leary said.

She later said: "If 10 percent of what was told to me (in the Washington, D.C., conference) was true, ... I thought the government was in deep trouble in that it could not bear any opposition and any questioning of its policies on its federal reservations."

She soon installed a "zero tolerance" policy on reprisals against whistleblowers.

Friday, May 22, 1998

House gives 6% boost to '99 Hanford budget

By John Stang
Herald staff writer

Hanford's budget could be headed back up or at least level out after years of decline.

On Thursday, the U.S. House approved a fiscal year 1999 Hanford cleanup budget of \$1.16 billion, which would be a 6 percent increase from the current budget of \$1.09 billion. The proposed budget, which would begin this Oct. 1, is also about \$48 million greater than the one the Department of Energy originally requested.

But it's still early in the process. The Senate is considering its version of DOE's cleanup budget — which is not detailed enough to say how much Hanford would get. But the Senate version of DOE's nationwide cleanup budget is also bigger than the agency's original request.

Once the Senate and House agree on a budget, it will be up to the president to sign off on it.

Hanford's budget has been dropping for at least five years.

The House budget Thursday — approved by a 357-to-60 vote — added money to pump out Hanford's single-shell tanks, seal off old reactors, tackle some tank farm safety work and coordinate studies into the site's subterranean contamination problems.

It also adds \$800,000 to operate the Hazardous Materials Management and Emergency Response training center in southern Hanford.

And the budget added \$10 million for DOE's economic and work force transition program — the so-called "3161" money — for all its sites nationwide. Community agencies at each site, including the Tri-City Industrial Development Council, will have to apply and compete for portions of the \$10 million.

And, the proposal would form another Hanford office. The budget includes language

calling for a separate Hanford office to manage the glassification of the site's tank wastes.

U.S. Rep. Doc Hastings, R-Wash., submitted three amendments to the budget.

"These measures will help change the way we do business at Hanford," Hastings said.

The amendments are:

■ Setting up an office at Hanford to supervise the "privatized" efforts to convert Hanford's radioactive tank wastes into glass.

Under this concept, a team led by BNFL Inc. would build the ultraexpensive glassification plants but not get paid until glass is produced.

DOE has been burned by huge cost overruns at another privatized project at Idaho Falls.

This prompted Hastings' amendment that also calls for the new office to report directly to the assistant energy secretary or energy undersecretary in Washington, D.C.

The idea is this office would concentrate solely on the glassification project.

Hastings' staff said this arrangement is similar to how a new major waste repository is supervised in New Mexico, and the concept is supported by DOE's new privatization czar Walter Howes.

The new office would be separate from DOE's Hanford office but would use an advisory panel that would include DOE's Hanford manager, according to the proposal.

■ Allowing the HAMMER complex to accept payment from a wider range of agencies to use the training center.

■ A non-Hanford measure ensuring Washington residents working on federal dams on the Washington-Oregon border won't have to simultaneously pay Oregon income taxes and Washington state taxes.

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5-28-98

Hatch to help lead national engineers society

By John Stang
Herald staff writer

Hank Hatch, Fluor Daniel Hanford's former president, is set to become assistant executive director of the American Society of Civil Engineers on Oct. 1.

"This is a chance to pay something back to the profession that has given me many opportunities over the past 41 years. ... I essentially considered myself a civil engineer throughout my career," said Hatch, who received his bachelor's degree in engineering from West Point in 1957.

Hatch's new job focuses on mapping out the future of civil engineering and promoting professional growth among civil engineers.

"With his wealth of exceptional leadership and management skills developed throughout his career in the military and private sector, (Hatch) knows how to inspire a team to achieve

great results," said James Davis, the society's executive director.

Founded in 1852, the organization is the nation's oldest engineering society, with more than 120,000 members.

Hatch, 62, was Fluor Hanford's first president. He led the Fluor teams that won the main Hanford management contract in 1996.

A couple of months ago, the American Society of Civil Engineers made Hatch an unsolicited offer for him to take the assistant executive director's job.

When Hatch retired from the Army in 1992 as a lieutenant general, he considered working for a professional engineering society. But he wanted to work in the private sector after 35 years in the Army Corps of Engineers, which he eventually led.

Hatch became president of the Law Companies Group, an Atlanta-based engineering con-

sulting firm, before joining Fluor in 1995.

The society offered him the job in late April. Hatch agreed not to discuss the job publicly until the society announced it, which it did Wednesday.

Ron Green, a Fluor executive from South Carolina, took over Hatch's job at Hanford in mid-May. Hatch's last day with Fluor is Friday.

Hatch said his father and West Point's engineering tradition influenced his career choice.

Hatch liked building roads, bridges and other structures.

"To me, it was always a fascination and a rewarding experience to create something of an enduring value," he said.

The society gave Hatch its President's Medal in 1991 for his longtime contributions.

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5-28-98

Talks break down on cleanup schedule for K Basins waste

By John Stang
Herald staff writer

Tri-Party Agreement talks on Hanford's K Basins stopped a few days ago because the Department of Energy does not have solid enough estimates that either side can live with.

Neither side knows when negotiations will resume on setting a legally enforceable schedule on removing 2,300 tons of spent nuclear fuel from two pools near the Columbia River to a safer underground vault in central Hanford.

The Tri-Party Agreement is the pact under which the Washington Department of Ecology and the U.S. Environmental Protection Agency enforce Hanford's cleanup under a timetable agreed to by DOE.

The two sides had hoped to nail down a timetable for the troubled K Basins project by now.

The project has been plagued with constantly escalating costs

and timetables. Estimates have grown several times from \$814 million to possibly \$1.4 billion over the past 1½ years, with the predicted completion date slipping from 2001 to 2005.

But the two sides broke off talks a few days ago.

"Further negotiations seemed fruitless. ... (DOE is) continuing to schedule slippages and cost increases," said Roger Stanley, the state's Tri-Party negotiator.

Ecology department spokeswoman Cheryl Hutchinson said: "We have to have something that's not moving constantly."

DOE still is double-checking plans, costs and schedules Fluor Daniel Hanford and DE&S Hanford submitted to DOE in April, said Charles Hansen, DOE's assistant manager for waste management.

"We're still looking very hard at what they are proposing," Hansen said.

5-29-98

Judge orders old bones out of PNNL

By Mike Lee
Herald staff writer

PORTLAND — Kennewick Man is getting a new home. Then he gets a physical.

In a move that inches the ancient remains toward study, a federal judge Thursday ordered the bones to be removed from Pacific Northwest National Laboratory in Richland and put in a facility where initial analysis can be done.

Court papers filed Wednesday by the Department of the Interior reveal draft plans for research designed to show if the skeleton is legally American Indian. A key part of the "physical examination" is comparing the bones with others of known origin, wrote agency archaeologist Francis McManamon in a court brief.

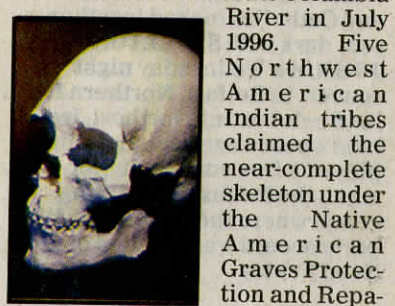
That work could begin in September or October.

But the first order of business is finding a new place to store Kennewick Man.

On Thursday, during his first Kennewick Man court hearing in almost a year, U.S. Magistrate Judge John Jelderks gave the

embattled parties one month to find another place to house the controversial bones, thought to be 9,200 years old.

The bones were accidentally found on the banks of the Columbia



Kennewick Man

River in July 1996. Five Northwest American Indian tribes claimed the near-complete skeleton under the Native American Graves Protection and Repatriation Act of 1990. The Army Corps of Engineers, which owns the land where the bones were found, was about to give the bones to the tribes.

But a group of prominent scientists from around the country sued the corps for the right to study the bones, saying the remains could not be linked to modern peoples without more information.

See **Bones**, Page A2

5-29-98

Gorton, Murray say labs need money for research

By Annette Cary
Herald staff writer

Pacific Northwest National Laboratory and other national labs need more money to continue their cutting-edge research on medical isotopes to treat cancer and other diseases, say Washington's U.S. senators.

Sen. Slade Gorton and Sen. Patty Murray have asked the Senate Appropriations Subcommittee on Energy and Water Development for an additional \$10 million for research and production. That would bring the fiscal year 1999 budget to \$32.5 million.

Rep. Doc Hastings, R-Wash., is preparing a similar request for the House Appropriations Subcommittee on Energy and Water.

The request asks that \$2 million go to the Richland laboratory. The administration had proposed a \$250,000 budget for the lab's radioisotope programs.

"With this new money we would be able to charge ahead at a much faster rate," said Tom Tenforde, manager of the Hanford Radioisotopes Program at the Richland lab.

The cut in the Richland budget was proposed because work is on track to turn production of yttrium 90 isotopes over to a private company.

The additional money asked by the senators will allow the laboratory to work on separating and purifying more isotopes from radioactive waste for use in medicine, as well as working on new ways to deliver the medicine.

The medical isotopes have shown promise in treating cancer, arthritis and heart disease in new ways. In cancer patients, the medical isotopes allow doctors to target radiation directly to cancer cells with less damage to healthy tissue than existing chemotherapy and conventional radiation treatments.

In one method, the radioactive isotopes are attached to antibodies or other proteins that travel through the body until they are attracted to cancer cells. They latch onto the malignant cells, releasing

a payload of deadly radiation directly to the cell. That allows doctors to selectively kill cancer cells that have metastasized or migrated from the main tumor.

With the additional budget money, the Richland laboratory could also proceed on research on injecting radioactive isotopes directly into tumors in a liquid that would gel inside the tumors. It's similar to a new method for treating prostate cancer that places radioactive seeds in the tumor, but would allow doctors to get strong doses of radiation where it is needed more easily.

Under the preliminary administration budget, most of the money nationwide would be spent on improvements at the Sandia National Laboratory in New Mexico, where the Department of Energy plans to start manufacturing isotopes in a 5-megawatt reactor.

That left about \$7 million for all the other national laboratories for work on medical isotope research.

"That doesn't go very far," said Ray Robinson, a consultant who prepared a nuclear medicine strategic plan for the Tri-Cities with federal economic diversification money.

The Society of Nuclear Medicine, representing 14,000 doctors and other medical and technical professionals, had requested the additional \$10 million, he said.

The request to the Senate appropriations committee "sends a strong message to the administration that our delegation and others want to see more emphasis on U.S. medical isotopes," Robinson said.

Medical isotopes for research and treatment are in short supply as demand for them increases, Gorton said. Some research has had to be stopped because doctors could not get the isotopes they needed to test the medicines they are developing.

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METRO/NORTHWEST

Port of Benton would need help to make 1100 Area pay

By Melissa O'Neil
Herald staff writer

Financial scenarios show it'll take more than leasing out buildings for the Port of Benton to break even if it operates Hanford's 1100 Area.

Negotiations have started for the Department of Energy to transfer the land, buildings and railroad in north Richland to the port. The 1100 Area stretches west of Stevens Drive and north of Spengler Road to Horn Rapids Road.

"We really should be breaking even," port

Finance Director Scott Holt told commissioners Friday. "Even the best-case scenario needs other sources to make it fly."

The five financial scenarios make a variety of assumptions, including that the facilities will be leased at their full market value instead of subsidized to attract new businesses.

The best-case scenario — plan M — assumes the port will have total control as of Oct. 1. Other factors calculated in are a 2.5 percent annual inflation rate, at least \$100,000 spent each year on road and utility improvements, a 15 percent railroad man-

agement fee, leasing the 1163 Building for \$6 per square foot and receiving rent from DOE until 2000.

Even with those predicted revenues, Holt said it would take \$86,000 of reserves to break even during the first full year, and increasing each year after that.

"For us to make this thing work, we'll have to try to lease out those 700 acres," Holt said. "This is what that area is going to cost us. If we go ahead and take the railroad, and these numbers turn out to be correct, we'll need subsidizing from other sources of revenues."

The port has been saving federal payments in lieu of taxes as a reserve fund for the 1100 Area acquisition. Insurance is estimated at \$23,000 a year for the buildings and \$35,000 for the rail line.

The port is seeking bids from companies interested in operating and maintaining the 18 miles of rail, which stretches from Columbia Center to Horn Rapids. The audience included Randy Peterson, Livingston Rebuild Center president, who is bidding for the contract.

"If we eliminate the railroad we can make a lot of money," Holt said. "The rail-

road is the most expensive item, but it is the factor that'll make or break" economic development in north Richland.

The rail appraisal is to be completed in late June. Port officials expect the entire 1100 Area to be valued at about \$100 million.

Commissioners didn't take any action Friday. They requested updates on the 1100 Area negotiations at each meeting. The next commissioner meeting is June 10.

Reporter Melissa O'Neil can be reached at 582-1531 or via e-mail at mo'neil@tri-cityherald.com

Sex ring lawsuit case enters 9th week

By The Associated Press

SEATTLE — The judge in the lawsuit over the Wenatchee child sex rings investigation is expected to announce today whether he'll dismiss the bulk of the claims against the remaining defendants.

As the trial stretches into its ninth week, Spokane County Superior Court Judge Michael Donohue is to rule on a batch of defense motions, filed after the prosecution rested in the complex case a week and a half ago.

Neither side expects Donohue will grant all the defense requests, though he dismissed claims against five defendants Thursday. The judge said he needed more time to consider the remaining motions, so the defense began presenting its case last week not fully knowing what it needs to defend against.

Donohue is to rule on claims against the city of Wenatchee, its police officials, and three members of the Douglas County sheriff's department. Even if all were granted, the lawsuit would continue on some claims against Douglas County and state Child Protective Services supervisor Tim Abbey.

The primary plaintiffs in the lawsuit — Pastor Robert "Roby" Roberson and his wife, Connie; Honnah Sims, a Sunday school teacher at Roberson's Pentecostal Church; and a former

Oversight board quizzes DOE on cleanup funding

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Members of an independent oversight board on Tuesday accused the Department of Energy of dragging its feet in cleaning up some of the most contaminated facilities at Hanford and other defense production sites.

Department officials reluctantly admitted part of the problem is lack of funding.

"It would not be forthright to sit here and tell you there are not funding challenges at Hanford," James Owendoff, DOE's acting assistant secretary for environmental management, said in testifying before the Defense Nuclear Facilities Safety Board.

Despite persistent questioning from board members, Owendoff refused to blame all the cleanup problems at Hanford's Plutonium Finishing Plant and

K Basins on money woes.

The board was looking for such an admission as the first step in triggering a process designed to place mounting pressure on the Clinton administration and Congress to appropriate additional funding for critical cleanup projects.

Established by Congress in the late 1980s as an independent watchdog of DOE's cleanup programs, the board has no legal authority to release additional funding. But through a process so far never used, it can very publicly tell the president his department is underfunding cleanup programs and warn Congress it needs to appropriate more money.

Board members have appeared to be creeping toward making such declarations but would like the department to first admit funding

See DOE, Page A2

EPA says Wahluke Slope should be off cleanup list

By the Herald staff

The 90,000-acre Wahluke Slope has no more significant environmental problems and should be removed from the national priority cleanup list for Superfund sites, the Environmental Protection Agency declared Tuesday.

Barring public objections, the Wahluke Slope and a patch of land called the Riverland Rail Yard are slated for cleanup list removal.

The Wahluke Slope generally has been considered clean since 1994 — though a chemical spill found last summer slowed the delisting process.

"We've cleaned up all of the outlying areas of the site," said Doug Sherwood, Hanford Project manager for EPA. "I would not pretend these are the most significant or important portions," he said.

The Wahluke Slope is Hanford's border to the north and east side of the Columbia River. It contained former anti-aircraft and missile sites used to protect

Hanford during the Cold War.

The Riverland Rail Yard is in the northwest corner of Hanford below the Columbia River. It served as a munitions cache, a rail maintenance area and a pesticide dump.

In the mid-1990s, the Arid Lands Ecology Reserve was declared clean along with the 3000 area, Sherwood said.

Land taken off the cleanup list remains in control of the Department of Energy.

At least now, said Sherwood, "These are portions that can be thought about for other uses."

Those other uses are bound to be more contentious than completing the paperwork to declare the site clean. Farmers are eyeing it for new cropland, and environmentalists want it preserved.

EPA's notice of intent to delete the sites from the cleanup list is at the DOE public reading room at Washington State University at Tri-Cities. The public comment period ends June 20.

Hanford Advisory Board to meet in Richland

The Hanford Advisory Board is scheduled to meet at the Richland Tower Inn today through Friday. All sessions are public.

Today's session is a background briefing at 7 p.m. for the public on Hanford's tank waste glassification project.

Thursday's meeting begins at 9 a.m., and includes discussions on Hanford's 1999 and 2000 budgets, waste glassification and the possible transfer of wastes among Department of Energy sites. Public comment is scheduled at 11:45 a.m. and 4:45 p.m.

Friday's session will begin at 8:30 a.m. It will include discussions on the K Basins project, Fluor Daniel's performance measures and possible updates on other Hanford issues. Ron Green, the new president of Fluor Daniel Hanford, is scheduled to be introduced to the board at 11:15 a.m.

Public comment is scheduled at 11:45 a.m. and 4:15 p.m.

Meeting set with Fluor president

By the Herald staff

Ron Green, the new president of Fluor Daniel Hanford, will be introduced to the Hanford Advisory Board at 8:30 a.m. Friday instead of the original time of 11:15 a.m.

The board meets all day today and Friday at the Richland Tower Inn. All sessions are public.

Study says tank waste change not caused by leaks

By John Stang
Herald staff writer

The radioactive waste in Hanford's SX-104 underground tank has risen and fallen because of the weather, not leaks.

A Hanford study confirms initial conclusions of last December that changes in barometric pressure caused the waste level to vary a few inches over a few days, according to a Hanford press release.

In December, environmental groups charged fluctuation meant Tank SX-104 was leaking.

Tank SX-104 is one of 177 underground tanks holding 54 million gallons of wastes in central Hanford.

Sixty-seven tanks are suspected of leaking

in the past, including SX-104, which leaked 6,000 gallons in 1988.

None of the 67 currently leaks, according to DOE and Lockheed Martin Hanford Corp., which manages the tank farms for Fluor Daniel Hanford.

In 1988, Hanford pumped 113,000 gallons out of SX-104.

That tank currently holds 200,000 gallons of liquid wastes, 136,000 gallons of sludges and 478,000 gallons of salt cakes.

The build-up of solid wastes in the tank also contributed to the fluctuating surface level, according to Lockheed and Fluor.

Tank SX-104 has been plagued by the pipes leading out of it to other tanks being clogged up — slowing wastes being pumped from the tank.

The latest study shows the surrounding soil cools the liquid wastes going through the transfer pipes, causing the sodium phosphate salts in the wastes to solidify and plug the lines, according to Lockheed.

Lockheed hopes to dilute the salts clogging the transfer lines in a few weeks, said Mike Payne, the company's director of technical operations.

Still, it will take one to 1½ years to finish pumping out Tank SX-104, he said.

Hanford has had trouble keeping up with its schedule to pump wastes from the 149 single-shell tanks into 28 safer double-shell tanks.

So far, 119 tanks have been pumped, including 63 on the suspected leakers list.

Three — including SX-104 — are currently being pumped. Pumping is scheduled to begin on two more this year.

The problem is that the Tri-Party Agreement — the pact governing Hanford's cleanup — calls for pumping to be under way on 17 tanks this year. Consequently, making the 2000 deadline to finish the pumping appears unlikely.

DOE recently has proposed extending that deadline by four years.

The Washington Department of Ecology and the U.S. Environmental Protection Agency have not publicly responded to that request.

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

Fluor recommendation about K Basins undisclosed

By John Stang
Herald staff writer

Fluor Daniel has submitted its recommendation on whether to keep DE&S Hanford in the troubled K Basins project, but the Department of Energy won't say yet what Fluor's choice is.

Fluor officials referred questions on the recommendation to DOE.

But DOE views the recommendation as "procurement sensitive," and does not want to publicly discuss it until it reviews that recommendation, said DOE spokeswoman Karen Randolph.

DOE did not know Monday how long the review will take.

Fluor was supposed to recommend by last Friday whether the two-year contract of DE&S Han-

ford should be renewed. The current contract expires Sept. 30.

DE&S Hanford is in charge of removing 2,300 tons of spent nuclear fuel from the K Basins to a huge underground vault in central Hanford. The K Basins are two indoor pools 400 yards from the Columbia River.

The project has been plagued with constantly escalating costs and timetables. Estimates have grown several times from \$814 million to possibly \$1.4 billion over the past 1½ years, with the predicted completion date slipping from 2001 to 2005.

And the cost estimates still are not solid.

The project's problems date to the original contractor, Westinghouse Hanford Co., setting up a too-optimistic timetable with no

contingencies or cushions built in.

When Fluor and DE&S Hanford took over, they tried to create a more realistic plan but have been plagued with numerous management and technical problems.

In December, Fluor sent DE&S Hanford a "cure notice," which was a letter noting several management concerns related to the delays and growing costs.

The letter included a notation that DE&S could lose its contract if improvements were not made.

But Fluor said in early May that it is satisfied enough with DE&S Hanford's progress in addressing the problem to lift the "cure notice." However, Fluor also said it wanted to see more improvement.

The K Basins project has been

one of Hanford's top priorities. And its increasing costs and schedule have drawn heavy criticism from Congress and the Defense Nuclear Facilities Safety Board.

Meanwhile, DOE and its regulatory agencies recently had to halt Tri-Party Agreement talks on setting a legally enforceable K Basins timetable because the estimates were not dependable enough.

The Tri-Party Agreement is the pact under which the Washington Department of Ecology and the U.S. Environmental Protection Agency enforce Hanford's cleanup under a timetable agreed to by DOE.

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

Anti-nuclear activists to scold Murray at convention

By the Scripps-McClatchy Western Service

TACOMA — U.S. Sen. Patty Murray normally would be the star of this weekend's state Democratic Party convention in Yakima.

But the candidate who will lead the party's ticket this fall instead will be fending off anti-nuclear activists who want to scold her for her position on restarting the Fast Flux Test Reactor at Hanford.

Their resolution calling on Murray to reverse her stance in favor of using the reactor for weapons production received enough support among Democrats to be debated Saturday.

"Because Sen. Murray played an active role in keeping the nuclear weapons mission at FFTF alive, it is now her duty to tell the Secretary of Energy ... that FFTF must be shutdown," the resolution states.

"Washington state Democrats demand that our members of Congress, senators and our governor take a stand and actively oppose the restart of the FFTF nuclear reactor for tritium production at Hanford," it says.

A recent letter to Murray from 16 Seattle Democratic activists said her re-election campaign would suffer if she didn't change her position.

The controversy began in January 1997, when President Clinton announced he would place the reactor on "hot standby" status instead of closing it. That would allow for a study to see if the plant was needed to make tritium, a radioactive isotope used to boost the power of nuclear bombs.

Keeping the reactor in "hot standby" status employs about 300 people in the Tri-Cities. Restarting the reactor could boost employment to 1,000.

Murray and Gov. Gary Locke encouraged the federal government to delay permanent closure. They acknowledged the reactor also could be used to produce tritium but said they hoped it eventually would be turned over to the production of medical isotopes.

John Engber, Murray's state director, said Murray's been meeting with opponents of FFTF and tried to answer their concerns. He said Murray placed stiff conditions on her continued support — including a demand that it not distract the government from its pledge to clean up decades of radioactive pollution at Hanford.

Fluor Daniel, DE&S consolidating K Basin offices

By John Stang

Herald staff writer

Fluor Daniel Hanford and DE&S Hanford Co. are consolidating their separate K Basin offices into one department in an attempt to streamline the troubled project.

Fluor's K Basins project manager Nancy Williams will be in charge. Charles Aycock, a veteran nuclear projects manager recently brought to Hanford by Duke, will be the deputy director.

Ron Green, Fluor Hanford's new presi-

dent, said he's seen Duke and Fluor successfully mesh together elsewhere, although Duke's future at Hanford remains uncertain.

It's not certain, however, that DE&S Hanford still will be part of the partnership after Sept. 30.

DE&S Hanford — a subsidiary of Duke Engineering & Services — has a two-year contract with Fluor to plan and manage the removal of 2,300 tons of spent nuclear fuel from two pools near the Columbia River to a huge underground vault in central Han-

ford. But the project has been plagued by cost increases and schedule delays.

The predicted completion date has slipped from 2001 to 2005. The predicted cost has jumped from \$740 million in 1995 to a fuzzy estimate of \$1.4 billion to \$1.6 billion.

"I'm disturbed that it will take \$1.5 billion to do a job where the outcome is passive," Green said. By passive, he means the project calls for building and filling vault, not designing a factory.

Green, who has been president since mid-

May, wants to analyze plans and figures more before speculating what the cost estimate should be.

Fluor sent its as-yet undisclosed recommendation on whether to renew DE&S Hanford's contract to DOE a few days ago. Hanford Manager John Wagoner said he will decide Duke's fate later this month.

Green said consolidating Fluor's and the subcontractor's project office will take place even if DE&S Hanford is replaced.

Beth Sellers, director of DOE's spent nuclear fuels project division, told the Han-

ford Advisory Board on Friday that Fluor and DE&S Hanford are improving.

"I've seen some changes. I'm seeing some passion I haven't seen before," she said.

Aycock, who has 38 years with Duke, told the board DE&S Hanford has made mistakes, but are fixing them.

"I've never worked on a project that was a failure. This is not going to be" the first, Aycock said.

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Jon Kroll came a long way to become a Pasco Bulldog

By Wendy Culverwell

Herald staff writer

If there's truth to the notion that a child graduates from a community and not just its high school, Jon Kroll is a perfect example.

Since his arrival in Pasco, Kroll



She bears no grudge against the birth family that left him in the box nearly 20 years ago.

His birth mother probably was so ill leaving him near a school for the blind was the best she could do, Berniece speculated.

Jon's good grades and pending graduation make him a hot prospect for both military and businesses that have no way of knowing the real situation.

Berniece said he's received letters about entering officer training.

Gregoire threatens to sue over K Basins

By Mike Lee and John Stang

Herald staff writers

Fears that the cost of cleaning up Hanford's K Basins will increase by another \$200 million have stalled talks on moving spent nuclear fuel from the basins to a safer site.

And the new potential price tag — \$1.6 billion — prompted Washington Attorney General Christine Gregoire to threaten to sue the U.S. Department of Energy during a luncheon speech Friday to the Tri-City Industrial Development Council in Richland.

Gregoire repeatedly threatened

It's Your Call:

Should the state sue the Department of Energy over the lack of progress on Hanford cleanup? **Page A3.**

the missed deadlines. We've had enough of the failed commitments. The state is out of patience and wants real solutions."

to unleash the state's "10-ton gorilla" — a lawsuit against DOE — if the agency continues to miss cleanup deadlines.

"If that is our only recourse, we will consider it," she said. "We've had enough of



Her stinging criticism of DOE and its contractors drew a standing ovation from 200 Tri-Citians at

We've had enough of the missed deadlines. We've had enough of the failed commitments. The state is out of patience and wants real solutions.

Christine Gregoire,
Washington Attorney General

the lunch. She also rebuked DOE for the slow pace of work to control leaks from underground

radioactive waste tanks.

She noted that nine years ago DOE insisted the tank leaks could not reach ground water. Last fall, DOE admitted the wastes had reached ground water.

The K Basins issue also was discussed Friday by the Hanford Advisory Board in Richland.

Gregoire's speech and the Hanford board's discussions indicated: ■ The state Department of Ecology and the U.S. Environmental Protection Agency are preparing to push the negotiations to a higher level. That means DOE Hanford Manager John Wagoner will discuss K Basins

cleanup timetables and budgets directly with state Ecology Director Tom Fitzsimmons and EPA Regional Administrator Chuck Clarke.

■ The EPA will assume the lead role from the state on the K Basins to provide more clout against DOE.

■ Gregoire, Fitzsimmons and Gov. Gary Locke plan to hold a news conference on Hanford issues Monday in Richland. The Ecology Department declined to say what the subject is, but the state has taken a much tougher stance on enforcing Han-

See **Gregoire**, Page A2

Hanford plant only

Generating memories



Clyde Garren, a former supervisor at the Hanford Generating Project, looks into one of the plant's 430-watt generators during a tour.

Hanford company reaches safety milestone

Hanford's Analytical Laboratory Operations organization recently reached 1 million hours worked without an injury resulting in a day lost for work.

The organization handles the 222-S lab complex and the Waste Sampling and Characterization Facility — both in the 200 West Area. The work force consists primarily of employees from Waste Management Federal Services of Hanford and Fluor Daniel Hanford.

About 205 to 300 people have worked in the labs over the past 23 months.

"Over half of the (organization's) employees work directly in a laboratory setting. This type of work always has potential for chemical, radiological and general safety implications and requires a comprehensive safety attitude and strong teamwork," said Bob Shoup, Fluor's vice president for environment, safety and health.

Locke to DOE: 'Enough is enough'

Washington files intent to sue for missed tank deadlines

By John Stang

Herald staff writer

Washington will sue the Department of Energy in 60 days for missing two deadlines for pumping radioactive wastes from Hanford's tanks, Gov. Gary Locke announced Monday in Richland.

The milestones are among the latest in a long line of missed Hanford cleanup deadlines.

"We've had it. Enough is enough," Locke said at a press conference.

He was flanked by state Attorney General Christine Gregoire, state Ecology Department Director Tom Fitzsimmons and the mayors of Richland, Kennewick, Pasco and West Richland.

Richland Mayor Larry Haler said: "The Hanford Communities firmly support the action taken today." The group is a coalition of the governments of Benton City, Kennewick, Pasco, Richland, West Richland and Benton County in the Hanford area.

Sen. Slade Gorton, R-Wash., and Rep. Doc Hastings, R-Wash., also issued written statements supporting the suit.

Monday's announcement was the legally required 60 days notice of "intent to sue." The lawsuit will be filed in federal court in Spokane, Gregoire said.

"We've concluded this is the only way to get it done," she said.

The suit will aim to convince a federal judge to force DOE to meet a Tri-Party Agreement deadline to pump all liquid wastes from Hanford's 149 underground single-shell



Herald/Bob Brawdy

Gov. Gary Locke and state Attorney General Christine Gregoire announce Monday the state's plan to sue the Department of

tanks into 28 safer double-shell tanks by 2000.

DOE contends that deadline is impossible and wants to extend it to 2004.

The Tri-Party Agreement is a legal pact signed in 1989 in which DOE agreed to a Hanford cleanup timetable enforced by the Washington Department of Ecology and the

U.S. Environmental Protection Agency.

Originally, the pumping was supposed to be complete in 1995, but the state and EPA agreed to delays to 2000.

"The record of DOE is that if we let it slip, they will continue to do this," Locke said.

So far, 119 tanks have been

Energy for cleanup delays at Hanford. West Richland Mayor Jerry Peltier is at far left, and Pasco Mayor Charles Kilbury is to the right.

pumped out — leaving 30 of the most difficult unpumped.

The Tri-Party Agreement calls for pumping to be under way on 17 more tanks in 1998. But DOE has begun pumping only three and plans to add two more this year.

The missed deadlines were Sept. 30, when pumping was to begin on six tanks, and March 31, when

pumping was to begin on eight more.

At least 67 of Hanford's 177 tanks are suspected of leaking about 1 million gallons of highly radioactive waste, with some wastes reaching the aquifer that eventually seeps into the Columbia River. About 54 million gallons of wastes

See DOE, Page A2

Work on Hanford trenches to be completed this month

By John Stang

Herald staff writer

Cleanup work on what had been one of Hanford's most immediate threats to the Columbia River is expected to be completed this month.

Hanford contractors have begun filling two defunct waste trenches just north of the 300 Area with clean dirt.

The work is expected to be done by the end of June.

After that, new vegetation will be planted.

From 1975 to 1994, Hanford pumped contaminated liquids from the 300 Area's laboratory and nuclear fuel fabrication operations into the two trenches, usually at the rate of 1 million to 1.5 million gallons a day.

The water and other liquids contained uranium, cobalt, arsenic and polychlorinated biphenyls, or PCBs.

"This was one of the big sources in the 300 Area for ground water contamination. ... This was one of the areas contributing a lot of uranium to the Columbia River," said Bob McLeod, the 300 Area project manager for the Department of Energy.

The two trenches are 12 feet deep, 10 feet wide and 1,535 feet long, which is more than twice the length of the Space Needle in Seattle.

And the trenches are slightly less than one-quarter mile from the river.

The contaminants seeped into the soil, with some oozing beneath the trenches.

In 1994, the contaminated liquids from the 300 Area began to be sent to a treatment plant built several hundred yards north of the trenches.

Roy F. Weston Co. of Seattle was hired to begin moving the contaminated soil in July 1997 to a huge hazardous waste landfill in central Hanford.

Most of the work was done in 1997, but some sampling and paperwork had to be tackled this year before the trenches could be filled.

Overall, about 37,000 tons of contaminated dirt were moved to the central Hanford landfill.

But samples of the ground water under the trenches indicate it will be three to 10 years before radioactivity is reduced to drinking water standards, Hanford officials said.

The area just north of the 300 Area contains several other cleanup projects. The biggest include:

■ Two contaminated dried-out pond beds where wastes were dumped before the trenches were dug.

This project is in the early stages.

■ An old burial site north of the trenches that contains 1,500 oil-filled barrels with at least 350 — if not all — holding uranium shavings.

This project has slowed down as experts huddle to figure out additional sampling needs and how to dispose of the uranium shavings.

Uranium chips can spontaneously ignite if enough of the shavings are exposed to the air.

The oil is a safeguard against that happening.

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6-10-98 Judge says Hanford whistleblowers did not break deal

By the Herald staff

A U.S. District Court judge in Spokane on Tuesday said Hanford pipefitters did not violate their whistleblower settlement with Fluor Daniel Northwest.

The decision likely will trigger the release of \$334,000 in settlement money Fluor Daniel agreed in February to pay seven pipefitters who claimed they lost their jobs because they raised safety concerns.

That money has been held by the court since Fluor Daniel sued in April, alleging the pipefitters had breached their end of the deal by filing union complaints against three Fluor employees who had

participated in the whistleblower investigation.

The investigation by the U.S. Department of Labor concluded in favor of the pipefitters. Fluor Daniel appealed, and a day before a judge was scheduled to hear the case, the parties settled.

The company, which admitted no fault, agreed to rehire the pipefitters, give them \$42,000 each and pay their legal expenses of \$40,000. The pipefitters agreed the settlement resolved all claims against the com-

pany and its employees.

Judge Fred Van Sickle said the settlement agreement did not prevent the pipefitters from filing union complaints for what they saw as violations of the union's constitution and bylaws.

Fluor spokesman Jerry Holloway said company officials have not decided if they will appeal the judge's decision.

6-11-98 FFTF restart gets boost from limits on tritium

By John Stang

Herald staff writer

Chances of restarting Hanford's Fast Flux Test Facility improved after the U.S. House rejected the only other near-term option for producing tritium for nuclear bombs, U.S. Rep. Doc Hastings' office reported.

Three weeks ago, House members approved a measure that would prohibit commercial reactors from producing the radioactive gas used to boost the explosive power of atomic bombs.

The Senate isn't yet considering a similar bill, so the commercial reactor option for tritium still is alive. It's on shakier grounds however, said members of Hastings' staff.

It's been long-standing U.S. policy not to use civilian reactors for military purposes.

If the commercial reactor option dies, that would leave only Han-

Budget:

Hanford 1999 budget works through committees. **Page A7.**

French:

Numatec Hanford Corp. spurs Tri-City French club. **Page A9.**

ford's FFTF as a backup to a proposed accelerator to be built at Savannah River, S.C.

The amendment to the House national security authorization bill banning the commercial option was introduced by U.S. Rep. Edward Markey, D-Mass. and U.S. Rep. Lindsey Graham, R-S.C.

Tritium production is a key issue for Graham and the rest South Carolina's delegation because of Savannah River's connection.

See **FFTF**, Page A2

Appropriations subcommittee grants Hanford cleanup money

By John Stang

Herald staff writer

Extra money to pump out Hanford's waste tanks and to seal off old reactors survived the U.S. House appropriations subcommittee on energy and water Wednesday.

A full breakdown of the House's version of the proposed 1999 Hanford budget was not available Wednesday. Consequently, information was not available on whether the overall recommended appropriation is greater or smaller than the \$1.16 billion the full House authorized earlier.

Hanford's budget has to follow two parallel two-step journeys through Congress.

The House and Senate each must pass an authorization bill — which is how much Congress will allow to be spent if money is available — and an appropriations bill — which is the actual money Congress will provide.

Authorization bills for Hanford have made it through the full House at about \$1.16 billion and the Senate Armed Services Committee at a less-defined amount that appears to be close to \$1.1 billion.

The House energy and water appropriations subcommittee soon will send its recommendations to the House Appropriations Committee. The Senate version is expected to go to the Senate Appropriations Committee this week.

Hanford's 1998 cleanup budget is \$1.09 billion. The Department of Energy originally requested \$1.11 billion in cleanup money for 1999.

U.S. Rep. Doc Hastings, R-Wash., requested three additions to DOE's budget request, which the House committee approved, according to Hastings' staff. These are:

- An extra \$18 million to pump radioactive wastes out of Hanford's underground single-shell tanks into safer double-shell tanks. Delays in pumping these tanks prompted Gov. Gary Locke to announce Monday that the state will file a lawsuit against DOE in early August to force DOE to meet a 2000 deadline to complete the pumping. DOE contends the deadline is not possible to achieve.

- An extra \$12 million for "cocooning" old reactors along the river. "Cocooning" consists of demolishing a reactor's outlying buildings and then sealing off the reactor inside its main chamber.

- And \$800,000 to fully fund the Hazardous Materials Management and Emergency Response training center in southern Hanford.

6-12-98 Fluor to buy preserve as part of fine settlement

By John Stang

Herald staff writer

Fluor Daniel will pay \$35,000 to help buy some Grant County land for a nature preserve as part of a settlement of a 1997 fine against Hanford's 222-S lab.

The original proposed fine was \$90,000.

The Washington Pollution Control Hearings Board this week OK'd a negotiated settlement in which:

- The Department of Energy told Fluor to pay the Nature Conservancy of Washington \$35,000 to help the organization buy about 300 acres of high-quality shrub-steppe habitat land near Quincy to be used as a nature preserve.

- \$40,000 of the fine is suspended, with half forgiven if no new safety violations show up at the lab in one year, with the rest forgiven if no violations surface in the second year.

- \$15,000 of the proposed fine is eliminated.

- DOE, Fluor and Waste Management Federal Services of Hanford, which manages the lab for Fluor, deny any fault or liability.

The settlement resolves a penalty DOE, Fluor and Waste Management have been contesting for several months, contending the state was penalizing the lab for internal procedure problems that got fixed by early 1997.

"We look at the agreement as

See **Fluor**, Page A2

6-13-98 Electrical mishap injures Fluor worker

A Fluor Daniel Hanford electrician received second-degree burns on his left arm Friday while working on an electric panel at central Hanford's Waste Encapsulation Storage Facility.

The 2 p.m. accident also knocked out electricity at the facility, but a backup generator soon restored power, according to a Fluor press release.

The electrician was working with a breaker on the panel when he was jolted. That breaker is being removed to help find the cause of the electrical flash, according to Fluor.

The worker was treated at Kadlec Medical Center and released, although he will be checked again today, according to Fluor.

The WESF is next to B Plant in 200 East Area. It's used to store 1,930 capsules of cesium and strontium in a big water-filled pool.

Kennewick family to spend year in Ukraine

By Sara Gonzalez
Herald staff writer

It's been a big year for 10-year-old Jeff Deal. As quarterback, he led his Grid Kids football team to a championship title. Then, he made a majors team in Little League. And he finished his last day of fourth grade Thursday.

But on Sunday, things really start happening for the Kennewick boy.

That's when he'll board a plane at the Tri-Cities Airport and make his way to Ukraine, where he, his parents, Jeff and Linda Deal, and two younger brothers, Brendon, 7, and Russell, 5, will live for the next year.

Deal works for Battelle, which along with Bechtel National and Electricite de France, was awarded a \$20 million contract last month to manage cleanup at the Chernobyl reactor (spelled Chornobyl by Ukrainians) that exploded in 1986. The project is expected to be completed by 2005.

Deal was offered the job as financial manager for the project even before the contract was awarded, and for the last two months, the family has been preparing for the move.

"We've been so busy, we haven't had time to think," Deal said. "This week, we pretty much eliminated everything we had to do. The pressure is on right now."

The family is moving to Slavutych, a city of 28,000 about 50 miles from Chernobyl and a 2½-hour drive from Kiev, Ukraine's capital. Slavutych was created after the Chernobyl disaster to house refugees and cleanup workers.

"In many ways, the city is similar to the Tri-Cities in that it was built for the Chernobyl site, like the Tri-Cities was built for the Hanford site," Deal said.

Jeff and Russell will be enrolled in the Slavutych school system, with Jeff starting fifth grade and Russell starting kindergarten. Brendon, who has Down syndrome, will be home schooled and will attend kindergarten once a week with his mother.

Because Russian is the language used at

school, Jeff and Russell will be studying Russian five days a week, three hours a day until school starts in September.

"It'll be fun just trying to go into a Russian school and making new friends and having a new experience," Jeff said. "It's going to be rough the first month or two. I'm going to miss most of my friends here."

Russell, who's launching his educational career in a different country, said he's excited just to be starting school.

"I know it's going to be tough in Ukraine to speak another language," Russell said.

The children have been teaching themselves Russian words with the help of a computer, Linda said, and they've made a lot of progress.

Her husband has tried to get Linda to learn Russian for the past three years, "but I've just blown him off," she said. "The kids are picking up stuff unbelievably fast."

Two days after the official contract was signed by Battelle, Deal flew to Slavutych and stayed for four weeks. His trip included visits to the schools where his sons will attend classes.

The curricula include painting, sculpting, theater, piano and violin, ballroom dancing and swimming.

"They put a lot of money and effort into their schools," Deal said. "They do a lot of different things that our schools wouldn't think of doing. Not that it's any better or worse, it's just different."

"They're all very excited to have an American boy in their class," he said. "All of the girls were giggling, and the boys were high-fiving each other."

Deal looked at housing while he was in Slavutych, but he didn't have much success. The family will start out in a hotel, but they're hoping to move into a place of their own within a couple of weeks.

Ukraine children favor soccer, hockey, wrestling and basketball. Deal and his sons are hoping to start the first Ukrainian youth base-

ball teams. Included in their 15 bags and 22 boxes of luggage are nine mitts, four bats and 12 baseballs.

"It's going to be tough for the Ukrainians to figure out baseball," Russell said.

Deal is hoping Kennewick's National Little League program will donate used catching equipment and that Battelle and Bechtel will sponsor T-shirts and hats so he can organize at least two children's teams.

"Who knows," he said. "These guys might be the Ukrainian Olympic counterparts in 10 years."

Although they are unable to bring any of their furniture or cars with them, a huge supply of peanut butter, bicycles, a computer and their Dalmatian, Molly, are making the move.

They plan on buying space heaters, a water heater, a television, a video cassette recorder and a satellite dish when they get there, Jeff said.

"I'm just hoping to survive," Linda said. "I just want to be able to go to the market and help out at the school."

Twenty-seven employees from the United States are being transferred to Slavutych. Some are bringing spouses, but only one other family plans to bring its children.

"It would have been nice to have more young families," Deal said. "But as a family, we will grow close to one another and will have to rely on one another."

Despite a little nervousness, the family all expressed excitement about the move.

"There were a thousand reasons for us not to accept this assignment (and) about a dozen to go," Deal said. "The biggest one is that this is a big adventure. How many projects can you work on in your life that actually make a difference in this world?"

But before the Deal family immerses itself in a foreign culture, they'll squeeze in at least one quintessential American experience — a three-day stop at Disney World in Florida.

■ Reporter Sara Gonzalez can be reached at 582-1616 or via e-mail at intern@tri-cityherald.com

10 Hanford employees possibly exposed to fumes

By the Herald staff

Ten Hanford workers are being checked for possible exposure to organic chemical fumes.

The incident occurred at 3:45 p.m. Monday outside of central Hanford's Waste Encapsulation and Storage Facility.

A crew of Fluor Daniel Northwest and B&W Hanford Inc. workers were preparing to get a test sample from a pipeline connected to a tank to be cleaned out just outside of the WESF.

The tank is believed to contain trace amounts of solvents, according to a Fluor Daniel Han-

ford press release.

Three workers were in a confined space to get the sample. The other seven were above that space.

Monitoring equipment detected the presence of organic chemicals. Two workers said they smelled an odor. One reported a sore throat.

As a precaution, work was stopped, and the crew was sent to the Hanford Environmental Health Foundation for evaluations.

The WESF is nestled next to B Plant in 200 East Area. The WESF's purpose is to store 1,930 capsules of cesium and strontium in a big water-filled pool.

Hanford workers return after breathing fumes

Ten Hanford workers returned to work Tuesday after being checked for possible exposure to solvent fumes.

So far, no ill health effects have been found, said Fluor Daniel Hanford spokesman Craig Kuhlman.

The incident occurred Monday outside of central Hanford's Waste Encapsulation and Storage Facility.

A crew of Fluor Daniel Northwest and B&W Hanford Inc. workers were preparing to get a test sample from a pipeline connected to a tank to be cleaned out just outside of the WESF.

The tank is believed to contain trace amounts of cleaning solvents. Three workers were in a confined space to get the sample. The other seven were above that space.

Panel to cut Hanford retraining dollars

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Legislation headed for the House Appropriations Committee could all but eliminate funding for retraining laid-off Hanford workers and assisting communities hurt by cutbacks, a DOE spokesman said Monday.

Through the years, Hanford workers and the Tri-Cities have received millions of dol-

lars for retraining and economic diversification under the so-called 3161 program.

But the committee is expected to consider an energy and water appropriations bill today that provides only \$29.8 million for the program in the coming fiscal year, \$15.2 million less than the administration requested and \$31.2 million less than the current fiscal year.

"The need for enhanced severance pay-

ments to contractor employees and grants to local communities has declined," the energy and water appropriations subcommittee stated in a report accompanying the bill.

The subcommittee said that during the past six years, DOE has provided almost \$1 billion in worker retraining and community assistance programs and concluded such programs should be ended in fiscal

2000 as the House National Security Committee has suggested.

Although the House bill would provide \$29.8 million for the 3161 program, much of it could be eaten up as the department closes two gaseous diffusion plants, one in Portsmouth, Ohio, and the other in Paducah, Ky.

The department is legally obligated to pay separation costs for the 600 to

1,700 workers at those plants, and that could cost between \$10 million and \$28 million, said Bill Wicker, a DOE spokesman.

The department also anticipates the lay-off of about 2,600 other workers throughout the DOE complex, which could cost an additional \$13 million, he said.

"If the House mark became law, no money

See **Hanford**, Page A2

More funds for Hanford may mean less for retraining

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Hanford would receive exactly what the administration sought in cleanup funding under legislation approved Tuesday by the House Appropriations Committee, although the measure could result in the cutoff of money for worker retraining and economic diversification in the Tri-Cities.

Although the Department of Energy would have the final say on exactly where the \$4.3 billion for environmental management would be spent in the next fiscal year, Rep. Doc Hastings, R-Wash., said Hanford's share should be the \$1.1 billion the administration requested.

Funding in the current fiscal year also is about \$1.1 billion.

"I'm confident that the funding levels approved (Tuesday) by the House Appropriations Committee will ensure that we can move ahead with cleanup at Hanford," Hastings said in a statement. "Despite continued concerns over rising costs and delays on some projects, we've convinced the committee that withholding funding for urgent cleanup will only make our efforts more difficult down the road."

The House bill includes \$550,000 to cover the cost of transferring about 1,000 acres of federally owned land along the Columbia River to local governments. The transfer should clear the way for improvements to Tri-City parks and levees along the river.

In addition, the legislation appropriates \$100,000 for the Army Corps of Engineers to study the minimum safe height of the Tri-City levees.

The funding was included in a \$21 billion energy and water appropriations measure approved by the committee and now headed for the House floor. The Senate is working on similar legislation, but the Senate Appropriations Committee has yet to act.



Associated Press

Bill Richardson, U.S. ambassador to the United Nations has been named the new Energy secretary.

Richardson picked to lead DOE

Appointment praised by people involved with Hanford

By The Associated Press
and the Herald staff

WASHINGTON — President Clinton will name Bill Richardson, the U.S. ambassador to the United Nations, as energy secretary, administration officials said Wednesday.

Richardson has been rumored as Clinton's nominee for the energy post for weeks, after Federico Peña announced he was stepping down in July to spend more time with his family.

Richardson, a former Democratic

congressman from New Mexico, had been considering whether the job would help him if he runs someday for governor of New Mexico or is considered a vice presidential candidate in 2000.

The nomination, expected to be announced today by Clinton, could be good for Hanford.

"Our thought is that (Richardson) is one of the stronger names put out there. ... With his background in New Mexico, he certainly has some awareness of (the

Department of Energy) as well as environmental management activities. He seems to have the president's ear in his current job. Hopefully that relationship will continue," said Jeff Breckel, Washington Department of Ecology special liaison on Hanford matters.

Sam Volpentest, executive vice president of the Tri-City Industrial Development Council, noted Richardson has been friends with U.S. Rep. Norm Dicks, a Western Washington Democrat who has been supportive of Hanford.

"If (Richardson) is secretary, I think his door will be open to people. He's a fellow who likes to talk to people," Volpentest said.

Pam Brown, Hanford issues coordinator for Richland, said, "We understand he has a good rapport with the White House."

Meanwhile, Richardson would be replaced at the UN by diplomatic troubleshooter Richard Holbrooke.

See DOE, Page A2

Metro/Northwest

A3

Tri-City Herald

Thursday, June 18, 1998

Plutonium discoverer arrives for Tri-City visit

By John Stang

Herald staff writer

You could say Glenn Seaborg planted the seed that sprouted into today's Tri-Cities.

Fifty-seven years ago, Seaborg and two others discovered plutonium in a University of California at Berkeley lab.

That discovery was picked up by World War II's Manhattan Project, which carved Hanford out of the sagebrush to make plutonium for the first atomic bombs.

And Hanford transformed a few scattered farm hamlets into today's metro area of 120,000 people stretching from West Richland to Richland to Kennewick to Pasco.

Seaborg, 86, has visited this area often. And he and Helen, his wife of 56 years, returned Wednesday to attend an American Chemical Society regional conference this week at Columbia Basin College in Pasco.

On Wednesday, the Seaborgs and about 110 people attended an American Nuclear Society dinner meeting in Richland. Seaborg, a Nobel Prize winner in chemistry, will give a

public speech at 7:30 p.m. today at Pasco High School on "My Service with 10 U.S. Presidents." Admission is \$5.

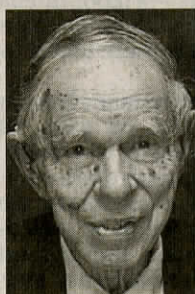
Besides plutonium, he has participated in the discovery of several other elements.

These include the 106th element discovered — named seaborgium after him. Seaborg worked on the discovery of the yet-unnamed 110th element in the early 1990s.

Today, there are 112 elements on chemistry's periodic table of elements. And Seaborg's lab is hunting for the 113th. Plutonium was the 94th element discovered.

Seaborg still keeps busy outside the lab — including having steady office hours.

"On Monday, I'll have a stack of papers like this," he said, holding his hand about a foot



Seaborg

off the dinner table at the Tower Inn. "It'll take me two days to catch up. I have a tremendous amount of correspondence."

He helps with articles. He prepares talks. He participates in several educational activities at the college and high school levels. Recently, he was appointed science committee chairman of California's Commission for the Establishment of Academic Content and Performance Standards.

And he signs lots of autographs.

"There is a constant onslaught of letters from kids for autographs," he said. Some send copies of the periodic table of elements for him to sign. Others get signed photographs.

And Seaborg is scheduled to autograph his book *The Plutonium Story, The Journals of Dr. Glenn T. Seaborg 1939-1946*, from 2:30 to 3:30 p.m. Friday at the Columbia River Exhibition of History, Science and Technology at 95 Lee Blvd. in Richland.

But not all of Seaborg's journals are as accessible.

From 1961 to 1971, he was chairman of the

U.S. Atomic Energy Commission, the forerunner of today's Department of Energy. And he kept journals of that time — a habit he began at the age of 14.

"My journals were all cleared (by the security officials) when I left," Seaborg said.

Then he lent one of those journals back to DOE in 1983 to help the agency write its history. But DOE hung on to that journal and decided parts of it contained classified information. And that classified information was deleted from the version of that journal that he could keep in a public, nonclassified area.

That irritated Seaborg.

"They deleted an account of me taking our kids out to trick or treat on Halloween," Seaborg said.

In 1997, U.S. Sen. Patrick Moynihan, D-New York, introduced a bill to declassify that journal.

But as of now, parts of that journal still are classified.

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

Plutonium in aquifer doesn't break water standards

By John Stang
Herald staff writer

A tiny amount of plutonium has been found in the aquifer just north of the K Basins, several hundred feet from the Columbia River.

Improved technology enabled samples from monitoring wells to be measured at tinier levels than previously possible, making it uncertain if the plutonium has been there for years or is increasing, say Hanford officials.

Either way, the amounts are minute.

Test results from one monitoring well show plutonium at twice the expected background level, but at a concentration about 10,000 times less than drinking water standards, said Mike Thompson, the Department of Energy official in charge of ground water monitoring and remediation programs.

"This is just another piece of data that will go into our understanding of what is going on (underground)," Thompson said Friday.

The plutonium could be leftover from a past leak at the K East Basin.

But Thompson speculated it's more likely a leftover from Hanford's production days, when some waste water was poured back into the ground.

The K Basins are two indoor pools that hold 2,300 tons of spent nuclear fuel.

The basins are about 400 yards from the Columbia River, and the K East Basin has leaked twice in the past.

DOE's plan is to move that fuel to a huge underground vault in central Hanford.

In October 1997, the Woods Hole Oceanographic Institution and Pacific Northwest National Laboratory took samples from nine monitoring wells around the K Basins as part of a continuing study.

So far, results from that round of samples are complete on four wells. Thompson said it's normal for it to take several months to sort through and analyze the ground water samples.

Three wells showed trace levels

of plutonium at expected background levels, Thompson said.

Trace levels could come from worldwide fallout from past atomic bomb tests or from previously tainted Columbia River water that ended up discharged into the ground from Hanford's old plutonium production days when it took in river water.

But the fourth well — just outside the K East Basin on the river side — showed twice the expected level of plutonium.

And that plutonium was in a form that could only come from Hanford and not from fallout, Thompson explained.

The highest plutonium measurement at that well is 0.000125 picocuries per liter. The federal drinking water standard for plutonium is 1.2 picocuries per liter.

During plutonium production years, spent fuel went from N Reactor to the K Basins, then to the Plutonium Uranium Extraction Plant.

At that time, the used water would be sent to a soil crib — a dumping site — that included a reverse well. Reverse wells were a

long-ago Hanford practice of disposing some liquid wastes — including bits of plutonium — in the ground water.

The plutonium is in an area that already has plumes of contaminated ground water — with strontium 90, carbon 14 and tritium exceeding drinking water standards.

The tritium plume in the K Basins area has reached the river. The strontium 90 and carbon 14 plumes are headed toward the river but have not reached it.

Hanford experts are studying how to clean up the polluted aquifer.

Currently, the Columbia River's vast volume has diluted contaminants reaching the river to benign levels.

However, questions remain on how the river will cope with potentially large volumes of contaminants that could reach the river in the future.

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House OKs full cleanup budget for Hanford

By John Stang
Herald staff writer

The full House passed a national environmental cleanup budget Monday that appears to fully fund Hanford's request for fiscal 1999.

But that action sets the stage for a joint House-Senate conference committee discussion on the controversial issue of how much money should be allocated for the Fast Flux Test Facility and what budget account it should come from.

The House passed a Department of Energy cleanup budget in excess of \$5 billion, with that money to later be allocated by DOE to its individual sites.

But the House's budget appears to provide enough money to meet DOE's original \$1.114 billion request for Hanford cleanup money in 1999. Hanford's 1998 cleanup budget is \$1.09 billion.

The House's 1999 budget also includes an extra \$30 million beyond DOE's original request. That is to pay for additional work on pumping wastes out of Hanford's single-shell underground waste tanks and for sealing off old Hanford reactors, according to the staff of U.S. Rep. Doc Hastings, R-Wash.

Meetings to explore Hanford contamination

Technical issues affecting Hanford's ground water and the Columbia River will be discussed from 8 a.m. to 5 p.m. Wednesday and Thursday at the conference center at 451 Hills St., Richland.

Technical experts from Hanford and Pacific Northwest National Laboratory and other national laboratories will participate in sessions that are open to the public. For information, call 375-4669.

DOE plutonium plan rules out Hanford role

By John Stang
Herald staff writer

A Department of Energy draft study recommends against Hanford playing a role in disposing of the nation's weapons-grade plutonium, Energy Secretary Federico Peña announced Tuesday.

The recommendation would kill the biggest mission that has been proposed for southern Hanford's huge and never-used Fuels and Materials Examination Facility.

Instead, DOE's draft environmental impact study on plutonium disposal will recommend the project go to its site at Savannah River, S.C., or to the Pantex plant near Amarillo, Texas.

Tri-City interests had hoped DOE would pick Hanford to help recycle plutonium to create mixed-oxide nuclear fuel for commercial power plants.

"I'm very disappointed. We were told we had a good chance of getting one of the

operations," said Sam Volpentest, executive vice president of the Tri-City Industrial Development Council.

"It looks like it's dead. But we're going to see what we can do about it. ... It's too important. We need to get rid of plutonium here," Volpentest said.

Various 1997 estimates indicated some sort of plutonium disposition mission at Hanford could translate into 500 to 700 jobs.

U.S. Rep. Doc Hastings, R-Wash., said

Tuesday, "Clearly, (DOE) was predisposed from the beginning against using FMEF or any Hanford facility for (mixed-oxide) fuel. ... It would be unfair and unwise for the DOE to select only one site (Savannah River) for all its new projects."

The plutonium disposition effort would tackle 55 tons of weapons-grade plutonium the United States wants to get rid of as part of disarmament efforts.

Last year, DOE recommended Savannah

River handle immobilizing 18.7 tons of scrap plutonium into a ceramic material. That would include 4.4 tons of scrap plutonium now at Hanford's Plutonium Finishing Plant.

That leaves 36.3 tons — mostly in nuclear weapon cores — that could be converted into mixed-oxide fuel for reactors.

DOE needs a site to dismantle the

See **Hanford**, Page A2

Fluor comes up short in performance fee

By John Stang
Herald staff writer

Fluor Daniel Hanford earned only 55.3 percent of the total possible \$54 million it could have received for its first year of managing Hanford in fiscal 1997.

That's a profit for running Hanford of just under \$29.9 million.

"I'm disappointed (at Fluor's performance)," DOE's Hanford Manager John Wagoner said Wednesday. "I absolutely expected better. I know Fluor expected better."

A fundamental reason for earning only a little more than half of the fee was Fluor being slow to bring in the project manage-

Hanford contractor must pay back \$2.5 million

ment system that it presented in its winning bid, Wagoner said.

When DOE looked at corporate bids in 1996, it wanted to shift Hanford to a system of specific subcontractors being in charge of specific projects with specific deadlines — and Fluor's overall corporate reputation indicated it was good at managing such a setup.

"We expected them to install that system in the first year," Wagoner said.

But Fluor was slow to do so, Wagoner

said, citing managerial and coordination problems at the troubled K Basins project as an example.

Fluor Hanford President Ron Green couldn't be reached for comment Wednesday, but in a memo to employees he wrote: "While the amount is less than we would have liked, (DOE) recognized that our ... team did a tremendous amount of good work during fiscal year 1997."

Fluor's seven-company team won its five-year contract by putting its entire fee on the

line with every single penny based on meeting performance objectives. Fluor's contract began Oct. 1, 1996, with the first year ending Sept. 30, 1997.

Previously, Hanford's lead contractors were guaranteed a base fee with additional award fees calculated on more subjective criteria than found in Fluor's contract.

DOE grading criteria for Fluor in fiscal 1997 consisted of 244 goals, of which Fluor's team successfully completed 208.

However, many of those goals were

grouped together so all goals in each group had to be achieved for Fluor to get credit. For example, one group might have eight goals, and if Fluor achieved only seven, it would not get paid.

Fluor will split some of the \$29.9 million among its subcontractors. However, details of that split are considered by Fluor as corporate proprietary information, which Fluor refuses to make public, said Fluor spokesman Mike Berriochoa.

Despite the 55 percent fee, Wagoner said tying the entire \$54 million to objective goals is working.

See Fluor, Page A2

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TRI-CITY HERALD

FRIDAY, JUNE 26, 1998

METRO/NORTHWEST

DOE gives Bechtel 'outstanding' performance rating

By John Stang

Herald staff writer

Bechtel Hanford Inc. picked up its eighth-straight "outstanding" rating to earn a performance fee of \$2.89 million for last winter.

The Department of Energy awarded Bechtel 88.8 percent of a possible \$3.24 million performance fee for the six months from Oct. 1, 1997, to March 31, 1998.

DOE also paid Bechtel a fixed base fee of \$1.58 million, bringing the corporation's total fee for those six months to nearly \$4.45 million.

"Bechtel has been able to accomplish more cleanup in spite of a budget lower than previously planned. They have taken on new challenges while finding ways to do more work faster and at less cost to the government," said DOE Hanford Manager John Wagoner in a press release Thursday.

Bechtel President Steve Liedle said, "We're extremely proud of our employees. They are the ones who made it happen."

Bechtel and its two subcontractors — CH2M Hill Hanford and Thermo Hanford — had earned a rating of 92.73 percent for the previous six-month grading period.

Bechtel's team handles environmental restoration work at Hanford. That includes demolishing outlying buildings at old reactors and sealing up the main reactor chambers, termed "cocooning."

Environmental restoration also includes moving contaminated soil to a huge central Hanford landfill and tackling ground water contamination.

DOE gave Bechtel good marks for:

■ Moving slightly more than its target of 300,000 tons of contaminated soil to the central landfill.

■ Keeping the cocooning of C Reactor on

schedule for completion by the Sept. 30 deadline.

Bechtel also tested eight new technologies last winter, of which some will be used on future cocooning projects. Bechtel already has begun demolishing outlying buildings at DR and F Reactors.

■ Staying ahead of schedule on pumping and treating contaminated ground water.

■ Getting a good start on developing a master plan to deal with Hanford's subterranean contamination.

■ Developing new ways to speed up

cleanup over the next 10 years, earning a \$25,000 bonus.

The biggest problems noted in Bechtel's evaluation consisted of three safety-related incidents. These involved a contaminated metal sliver puncturing a worker's hand at the N Basin, the wrong contamination signs being posted in the N Basin area and workers accidentally cutting a buried live electrical wire near the central waste landfill.

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

Enterprise contracts extended by Fluor

By John Stang
Herald staff writer

Fluor Daniel Hanford will extend the contracts of five of Hanford's enterprise companies by two years.

The exception is the security firm B&W Protec. Several weeks ago, the Department of Energy told Fluor to put that contract out for bids.

While the contracts of the other five companies will be extended, some of those firms will lose their exclusive holds to varying degrees on some Hanford work, Ron Green, Fluor Daniel Hanford president, said Thursday.

That will open up some additional Hanford work to competitive bids among the enterprise companies and Tri-City and regional firms starting Oct. 1, Green said.

Fluor and five of its main subcontractors created six enterprise companies in late 1996 when they took over managing Hanford.

Roughly 2,000 Hanford workers were transferred to these "outside the fence" companies that formally exist outside of the federal Hanford world, but do almost all of their business at Hanford.

The idea is these firms had a guaranteed amount of Hanford work while they branched out into the non-Hanford world. Their ultimate goals are to become permanent Tri-Cities firms growing more independent of Hanford.

The six enterprise companies are Fluor Daniel Northwest, Lockheed Martin Information Services, Waste Management Federal Services Northwest Operations, Cogema Engineering Corp., DE&S Northwest and B&W Protec.

Although their contracts will be extended, the same firms will lose the exclusivity feature on some of their Hanford work Oct. 1.

For example, Fluor Daniel Northwest will remain the sole provider of Hanford's construction services. But architect-engineering services at Hanford — which Fluor Northwest currently has a lock on — will be put out for bid after Oct. 1.

The enterprise companies can compete for the project put out for bids, Green said.

New Fluor president leaving for better job

By John Stang
Herald staff writer

An undisclosed energy company made Ron Green an offer he couldn't refuse, so he has resigned as president of Fluor Daniel Hanford after only a month and a half on the job.

The resignation is effective immediately in order to get the new acting president, Ron Hanson, fully immersed into his new slot, said Ron Peterson, president of the government, environmental and

telecommunications group for Fluor Daniel Inc.

That leaves the top slot at Fluor Hanford in limbo.

Hanson will fill the post for now, but Fluor Daniel Inc. has not decided whether to make him the permanent president.

And the Department of Energy will have to approve Fluor's decision.

Green, a 16-year veteran of Fluor Corp., has been Fluor Hanford's president for less than seven weeks.

Tuesday's announcement sur-

prised Hanford circles.

John Wag-
oner, DOE's
Hanford Man-
ager learned
about Green's
resignation at
8 a.m. Tuesday.

"I was
absolutely
shocked," Wag-
oner said.

Green, 50, declined to say what his new post and employer are, saying



Green



Hanson

and never get," Green said.
A corporate executive search

his new com-
pany wants to
make that
announce-
ment. It is a
high-ranking
job in a major
energy corpo-
ration.

"Frankly, it's
a position peo-
ple like me
dream about

firm first approached Green about the job in January. And Green was the first person to interview for the post.

When Fluor approached Green about the presidency of Fluor Hanford, he checked with the "head-hunter" firm and found it was interviewing its 24th candidate. By then, Green figured he was out of the running for that slot.

When Green came to Hanford in mid-May, the search firm was looking at its 30th candidate. Green kept Peterson up to date on his situation.

Then in late May, the search firm narrowed its candidates to 12 to four to two — with Green surviving every cut. Finally, it offered Green the job.

Green agonized over the decision.

The offered job greatly appealed to him. And the former president of Fluor Daniel Power worried about being out of the rapidly evolving energy field for the typical two-to-three year life of a corporate president. Meanwhile, Fluor Daniel

See Fluor, Page A2

Wednesday, July 1, 1998

DOE again likely to miss Tri-Party deadline

By John Stang
Herald staff writer

The Department of Energy is on the verge of missing another deadline for cleaning up Hanford's highly radioactive tank wastes.

The July 31 deadline set in the Tri-Party Agreement is in danger because talks remain unresolved on a contract that would convert those wastes into glass logs.

The agreement between DOE, Washington state and the federal Environmental Protection Agency governs Hanford cleanup.

DOE and BNFL Inc. still were negotiating Tuesday, with the possibility the talks could extend a couple of weeks into July, spokesmen for both sides said.

But Congress wants 30 days to review the proposed contract, which means today is the

deadline for DOE and BNFL to complete their talks.

Washington state already has announced it will sue DOE in federal court because of missed deadlines on pumping liquid radioactive wastes from Hanford's underground single-shell tanks into safer double-shell tanks.

State officials in Olympia were unavailable Tuesday to say if a brief delay is acceptable or cause for more legal action.

In Kennewick, Ron Skinnarland, a state Ecology Department manager for 200 Area cleanup, said the state has not taken a position on the delay, pending discussions by Gov. Gary Locke and the state Attorney General's Office.

"We're concerned with (the contract talks)

starting to run late. If it is only a couple of weeks, the state will have to assess if it is a concern or not," he said.

Hanford has 54 million gallons of highly radioactive waste in 177 underground tanks. DOE is negotiating with BNFL to build plants to convert those wastes into glass, beginning in 2002.

The contract is expected to run for several years and be worth billions of dollars.

A key component of the pact is to ensure BNFL would not be paid a penny until the first glass is produced.

DOE spokesman Guy Schein and BNFL spokesman Geoff Harvey described the negotiations as nearly finished.

"This whole negotiating process has been more involved than anyone originally pic-

tured it," Schein said.

Harvey said: "If you consider the challenge before us, (the continuing talks are) not too surprising. This is DOE's largest privatization procurement."

Harvey said the two sides agree on the basic structure and costs in the contract and are now addressing some language issues.

"It's things like (using) 'shall' vs. 'will.' They're not pushing for major structure changes," Harvey said.

Schein said DOE believes getting a solid long-term contract is worth missing the deadline by a couple of weeks.

"The most important thing is getting a good agreement," Schein said.

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

Duke gets another year to turn around K Basins

By John Stang
Herald staff writer

The Department of Energy has approved a one-year extension on DE&S Hanford's contract to manage Hanford's troubled K Basins project.

"The 12-month period provides an opportunity for us to demonstrate that changes and improvements we've made will be effective," DE&S Hanford President Tony McConnell said Tuesday.

DE&S Hanford must accomplish specific project goals in fiscal 1999 to get any extension beyond one year, said DOE's Hanford Manager John Wagoner.

DE&S Hanford — or "Duke" — is finishing its original two-year contract to remove 2,300 tons of spent nuclear fuel from the K Basins —

Glass:
Energy Depart-
ment on verge of
missing deadline
on vitrification pro-
ject. **Page A3.**

Competition:
Hanford Patrol
takes second
place at national
DOE contest.
Page A7.

two indoor,
water-fill-
ed pools
near the
Columbia
River — to
a huge
under-
ground
vault in
central
Hanford.

The pro-
ject's esti-
mated
costs have
risen from

\$740 million in 1995 to \$1.4 billion and possibly more in 1998. Meanwhile, the expected completion date has slipped from 2001 to 2005.

See K Basins, Page A2

METRO/NORTHWEST

DOE releases 48-year plan for Hanford cleanup

By John Stang
Herald staff writer

Think of it as the Cliffs Notes of Hanford's cleanup for the next 48 years.

The Department of Energy released this week its "Accelerating Cleanup: Paths to Closure" plan for Hanford.

This is essentially a condensed version of how DOE sees Hanford's cleanup unfolding through 2046 — assuming it gets the funds to meet all of its legal cleanup obligations,

said Jim Daily, DOE's Paths to Closure team leader.

The 51-page document contains no major new revelations on Hanford's cleanup plans, he said.

But it will give any interested person an overview on how DOE is looking at the overall Hanford cleanup picture as of 1998, he said.

DOE plans to revise this document annually so interested people can keep up.

The document includes the tentative timetables for tackling tank farm matters, dealing with spent

nuclear fuel, disposing of contaminated soils, closing and sealing old reactors, treating and removing transuranic and mixed low-level wastes, decontaminating and closing old facilities and other issues.

The document also includes what each site is supposed to look like after cleanup is complete.

The idea is people can look at the timetables and proposed conclusions of each project and decide if they want to participate in public debates and hearings

as they unfold, Daily said.

The overall plan puts an estimated price on Hanford's cleanup through 2046 at \$50.8 billion in 1998 dollars or \$85.3 billion after inflation is factored in — roughly the same estimates made in 1997.

But Daily cautioned that estimating Hanford budgets beyond two or three years is a highly speculative venture.

People can obtain copies by mailing a request to the U.S. Department of Energy, Richland Operations Office, Accelerating

Cleanup, Paths to Closure, James Daily, MSIN A5-58, P.O. Box 550, Richland, WA 99352.

Or people can find copies at <http://www.em.doe.gov> or at <http://www.hanford.gov/doe/10yrplan/hmd.htm> on the Internet.

Or copies can be read at the DOE Reading Room at the Washington State University at Tri-Cities campus.

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THURSDAY, JULY 2, 1998

Alabama reactor stacks odds against FFTF

By John Stang

Herald staff writer

The Tennessee Valley Authority is keeping a partially built Alabama reactor on the table as a proposed producer for tritium.

On Tuesday, the TVA sent a short letter to the Department of Energy to extend the deadline to Dec. 31 for its proposal to convert a reactor to produce tritium.

Originally, the TVA's deadline was today.

If the TVA reactor had dropped out, that would have increased the likelihood of Hanford playing a backup role for producing tritium — and, eventually, medical isotopes.

Now, three options remain in contention, lessening the chances of resurrecting the Fast Flux Test Facility.

DOE is expected to decide sometime this

year which tritium options it will use.

The TVA believes finishing the partially built Bellefonte Unit No. 1 in northern Alabama is the best option for American taxpayers and TVA ratepayers, TVA spokeswoman Barbara Martocci said Wednesday.

Also, the TVA loses nothing while keeping its proposal on the table until DOE makes up its mind, she said.

The TVA's decision keeps three options in play to produce the nation's tritium, which is used to boost the explosive power of atomic bombs.

The United States quit making tritium for atomic bombs in the late 1980s.

With a 12½-year half-life, the tritium in the nation's nuclear stockpile has been decaying. The supply is expected to drop below the nation's needs between 2006 and 2010.

Consequently, DOE is looking at two proposals for a new primary tritium source.

One option is to build an accelerator at DOE's Savannah River site in South Carolina.

The other is to convert a commercial reactor to produce tritium and electricity. Some reactor proposals have been withdrawn, so the TVA's proposal to finish and convert its Bellefonte Unit No. 1 is the only one left.

Meanwhile, reviving Hanford's dormant FFTF is being considered as a proposed short-term tritium source until either an accelerator is built or a reactor is converted. The FFTF also is proposed as a backup to either an accelerator or commercial reactor.

The stop-gap tritium mission has been proposed as a bridge to keep FFTF operating while developing a long-term production mission for medical isotopes.

The TVA believes one of its five reactors could be used as a backup to the Bellefonte plant.

It would take five years to finish the Bellefonte plant, the TVA says, resulting in 700 new permanent jobs and about 2,000 new "indirect" jobs.

The TVA contends that finishing the Bellefonte reactor would be cheaper for the federal government than building an accelerator.

However, a major hurdle to using a commercial reactor is the U.S. policy not to use civilian reactors for military purposes. That policy would have to be changed for the Bellefonte reactor to produce tritium.

And Congress has shown no serious inclination to change that position.

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Hanford cheers move of millionth ton of dirt

Employees of Hanford's environmental restoration contractor team had a million reasons to cheer Thursday.

The team, led by Bechtel Hanford, removed its 1 millionth ton of contaminated waste from a site near the Columbia River, according to its estimates.

The waste, much of it dirt poisoned by nuclear weapons production, has gone into a huge landfill called the Environmental Restoration Disposal Facility. The 2-year-old landfill is large enough to hold New York's Empire State Building.

It's now being filled with waste from three Hanford sites contaminated when liquid wastes were disposed of in cribs and trenches during Hanford's operating years. About 150 loads of waste are trucked to the landfill each day.

State keeps radioactive water out of Hanford

By John Stang

Herald staff writer

Hanford won't get radioactive water from New York because of opposition by the Washington Department of Ecology.

Informal discussions as recent as last week have ended because of the state's opposition.

The Department of Energy is trying to figure out what to do with 60,000 gallons of contaminated water at its Brookhaven National Laboratory on Long Island.

It had thought about shipping it to Hanford, where it would be treated and disposed.

The state Ecology Department didn't care for the idea.

"We let (DOE) know in no uncertain terms that we would write and scream and yell if DOE became serious about it," said Sheryl Hutchison, Ecology Department spokeswoman.

So now, Brookhaven is seeking a commercial company to treat and dispose of the water, said Mina Rowe, spokeswoman for Brookhaven Science Associates, which operates the lab for DOE.

Brookhaven is a DOE national laboratory that operated an air-cooled research reactor until 1968. Its air ducts accumulated radionuclides during its operation, and rainwater during the 30 years since it shut down.

Consequently, the lab now has thousands of gallons of contaminated water laced with tritium, strontium, cesium, americium, plutonium and other substances, Rowe said.

Hanford could remove much of the radionuclides from the contaminated water, which would then be dumped into Hanford's ground. But tritium cannot be removed from water.

Rowe and DOE spokesman Guy Schein said sending Brookhaven's water to Hanford is not being considered now, and the idea never made it to a concrete proposal. One reason is the state's opposition, Schein said.

Hanford manager unaware of weapons melting

By John Stang

Herald staff writer

John Wagoner, the Department of Energy's Hanford manager, was not told nuclear weapons parts were being melted 1½ miles from Richland until roughly two weeks after the testing was done, a new DOE report says.

DOE released a report this week after investigating why an air monitor was turned off when a small amount of tritium was released in the April 14-17 test on destroying weapons parts.

"(DOE's Hanford) manager was taken by surprise because he had not been told that nuclear weapons components were being treated on the Hanford site," the report said.

It was one symptom in a series of communication lapses that led to a 300 Area air sampler being turned off, sparking protests from the Washington Department of Health.

DOE officials and Al Conklin, the state's manager for radioactive emissions, said there was no deliberate attempt to hide the tests.

Instead, the officials and the report characterized the problems as a combination of:

■ Not having a formal notification process in place.

■ Not all of the appropriate officials being contacted early enough.

■ Some officials being gone when final discussions began on whether to turn off the air sampler.

David Brown, DOE's inspection team leader, said if more officials knew about the test earlier, problems could have been avoided.

"If we had more senior managers involved, they probably would have been more sensitive to (public perception) issues," Brown said.

DOE spokesman Mike Talbot said: "It is a system-wide matter. We're not pointing fingers at individual contractors."

Pacific Northwest National Laboratory was conducting a melting test in Building 324 — managed by B&W Hanford — to see if a plasma arc furnace could safely and successfully melt 200 tubes from disassembled nuclear weapons from DOE's Pantex plant in Texas.

Some mid-level DOE managers knew PNNL was working with Pantex on the project, which was mentioned in a March 9 memo, DOE's report said. But the memo did not say the test

would be conducted at Hanford.

"A reader unfamiliar with the project could have inferred that the test was scheduled to occur at the Pantex Plant," the report said.

A PNNL researcher had the furnace cranked up before realizing that measurements of the tritium release could enable people to calculate the classified amount of tritium in the bomb components. And shutting down the furnace posed potentially long and expensive delays.

Consequently, some PNNL, DOE and B&W Hanford officials huddled and decided to disconnect the sampler. They believed they were on solid legal grounds, the report said.

The problem is that the discussion took place very late in the day, with key people missing. And not all the proper officials were consulted, Conklin said.

In late April, at least two people called newspapers, Conklin's office and Oregon regulators about the monitor being disconnected.

That led Conklin to inquire about the air releases. He was told he could not find out because of the classified nature of the test. Con-

klin has the appropriate security clearances and protested. DOE reversed itself and allowed him to review the test.

A classified amount of radiation totaling less than 8.1 curies was released, the report said.

Conklin said the amount was small and public health was not threatened. But his major concern is the communications glitches — including the state not being notified.

The state cited Hanford for two violations — turning off the sampler and melting nuclear weapon components without a proper permit. The potential fines could have totaled \$80,000, but the state never seriously considered hitting DOE with the full amount.

Instead, it ordered Hanford to check the site's facilities to ensure hazardous emissions are not being improperly overlooked.

The DOE report recommends several procedural improvements to prevent future communication lapses.

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Yucca Mountain

Reluctant repository

Nevada still
fighting the DOE's
plan to fill
mountain with
spent nuclear fuel



The main tunnel through Yucca Mountain eventually may be used to carry nuclear waste to the proposed repository, but for now, only alcoves have been drilled along it for experiments. On the top left, a red beam from a laser alignment system is visible. Photo courtesy of DOE

From the neon of the Las Vegas strip, you drive 100 miles northwest to reach Yucca Mountain. It's down a highway so straight and lonely the locals called it the Widow Maker until the Department of Energy kicked in to widen it.

Only cactus and yucca line the road, making one mile look like the last until you reach the Nevada Test Site entrance. Until recently, the DOE tested nuclear weapons here.

Now, the sign over the guard station optimistically announces the site as an environmental research park. But the state fears in reality it will become a high-tech nuclear waste graveyard.

Yucca Mountain is the prize in what has become a high-profile power struggle. The issue is whether the site will be used to bury the spent fuel from nuclear plants in Washington and 34 other states, as well as the government's most highly radioactive defense wastes from Hanford and elsewhere.

Environmentalist Judy Treichel, executive director of the

“

***We believe we could have
the Hanford of the future
with this.***

Judy Treichel, executive director,
Nevada Nuclear Waste Task Force Inc.

the mountain, seeping slowly through pores in the rock and sometimes pooling in places for thousands of years.

Then researchers were startled to find chlorine 36 isotopes hundreds of feet inside the mountain. The isotope was released into the atmosphere during weapons testing at the site during the 1950s and '60s.

The most plausible explanation seems to be that rain washed the isotopes from the surface to the depth where wastes would be stored in as few as 30 or 40 years — not the hundreds or thousands of years scientists expected.

If the water moves that fast, it means the only thing protecting the water table from nuclear waste would be the containers it's stored in, said Steve Frishman, policy coordinator for Nevada's Nuclear waste Project Office.

He argues that as the containers corrode, they could release waste and contaminate the aquifer for thousands of years.

“It isn't a waste isolation, but a time release depository,” he

”

Hanford cleanup tied to the mountain

Once contained, Hanford waste would head to Yucca

Nevada's Yucca Mountain nuclear waste repository would play a key role in the complicated and hugely expensive task of cleaning up Hanford.

That role is in the cleanup of perhaps the nation's two most pressing environmental threats: Hanford's tank farms and the K Basins.

Although Yucca Mountain is seen as the answer to the problem of spent nuclear fuel piling up at the nation's commercial nuclear power plants, it also would be the savior for the Department of Energy's efforts to clean up wastes left from almost 50 years of nuclear weapons production.

At Hanford, 177 giant underground tanks hold a toxic brew of chemical and radioactive wastes that could end up at Yucca Mountain. Also expected to go to Nevada are 105,000 canisters of spent fuel from DOE's weapons production now being stored in the K Basins.

But before waste can be sent to Yucca

Mountain, Hanford faces the difficult task of getting the waste contained, packaged and secured in a temporary storage facility.

Here's a look at those two Hanford projects:

■ The tank farms pose an immediate environmental threat because more than a third of the tanks have leaked.

Some waste has seeped through the soil to contaminate ground water and is flowing toward the Columbia River. Scientists aren't even sure exactly what's in some of the tanks.

DOE's immediate solution is pumping the waste from older leaking single-shell tanks to more secure, double-walled tanks. But DOE ultimately plans to vitrify the waste — mix it with glass in furnace-like melters.

The mixture would then cool into glass logs that scientists believe could contain the radioactive wastes for 10,000 years. Those logs would be stored at Hanford

until a permanent waste site — likely Yucca Mountain — is ready.

It's an expensive project. Over 30 years, taxpayers would have to spend more than \$17 billion — about what the entire Yucca Mountain project will cost. Each 15-foot log would cost an estimated \$1 million, including the cost of permanently storing the waste.

If money is found for the vitrification project and technical hurdles are cleared, the first glass logs could begin to pile up at Hanford in 2002.

Eventually, an estimated 12,000 logs would be made with highly radioactive wastes. It is those that could end up at Yucca Mountain.

The repository also could accept other DOE high-level wastes from Idaho, New York and South Carolina, but together those states have less than half the high-level waste of Hanford.

■ The K Basins hold 80 percent of DOE's spent reactor fuel nationwide.

The 2,300 tons of spent fuel are kept under

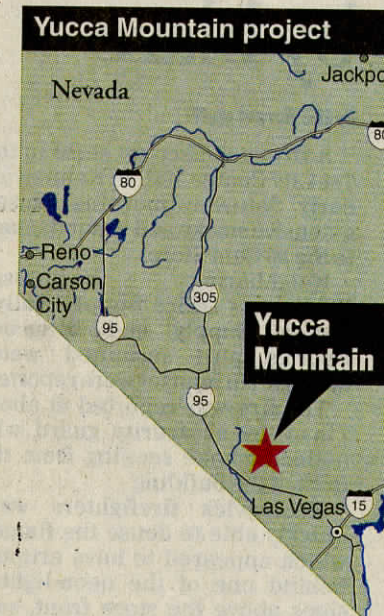
1.3 million gallons of water in concrete basins a few hundred yards from the Columbia River. Some contaminated water has leaked from the pools in the past.

The government expects to spend \$1.6 billion cleaning up the pools. Canisters of spent fuel, stored there since as early as 1975, will be packed into enclosed tubes.

Complicating the cleanup is the poor condition of many of the canisters. They've corroded and radioactive specks have crumbled off and mixed with loose sand to build up a few inches of sludge on the bottom of the pools.

The fuel canisters are to be removed by 2001. Work can then begin to mix the radioactive sludge into glass logs by 2005.

Once packaged, that waste, along with the vitrified tank wastes, would be stored temporarily at three underground storage vaults at Hanford. The vaults are designed to safely contain the waste for at least half a century — or until the DOE has a permanent repository ready to accept it.



Bechtel's Hanford contract extended

By John Stang
Herald staff writer

Bechtel Hanford's fee will be based 100 percent on performance under its new three-year contract extension.

The Department of Energy decided to extend Bechtel's five-year environmental restoration contract from an expiration date of June 30, 1999, to June 30, 2002, DOE announced Monday.

"This extension clearly reflects the hard work of the team and its people. ... You managed to meet or beat every (Tri-Party Agreement) milestone. So it is not hard to decide to extend," Linda Bauer, DOE's assistant manager for environmental restoration, told Bechtel's employees Monday.

"That accomplishment could not, would not be achieved without all the people involved," said Steve Liedle, Bechtel's president.

Bechtel's three-company team earned eight straight "outstanding" ratings for each of the six-month grading periods in the four years it has been at Hanford.

Bechtel has two subcontractors — CH2M Hill Hanford and Thermo Hanford. Those firms' contracts also will be extended, Liedle said. The three companies employ about 950 people.

DOE made the extension decision now for morale reasons so Bechtel team workers would know their corporate situation would be stable for four years, Bauer said.

DOE's Deputy Hanford Manager Lloyd Piper added that if the environmental restoration contract would have been put out for bids, a lead time of about a year probably would have been needed.

Bechtel's environmental restoration contract covers managing a huge contaminated debris landfill in central Hanford, removing contaminated soils, operating facilities to pump contaminated ground water and treat it, and decontaminating and sealing off old reactor complexes.

Bechtel also coordinates Hanford's efforts to create a master plan to deal with ground water con-

HEHF wins Hanford health services pact

By Wendy Culverwell
Herald staff writer

The Department of Energy has tapped its current occupational health and medical monitoring contractor to continue at Hanford for another three to five years.

The Hanford Environmental Health Foundation beat out the only other bidder, Chiawana Health Services of Orange, Calif., for the contract, which is worth up to \$46 million over five years.

The contract is the smallest of the four main contracts at Hanford.

Both HEHF and Chiawana are capable of providing the services DOE needs, but HEHF's experience with radiological hazards and the nuts and bolts of its approach to providing services made it the better choice, said Walter Scott, senior technical adviser at DOE's environment, safety and health office and

chairman of the panel that evaluated the contract.

HEHF President Sandy Matheson said radiological hazards aren't a daily part of the foundation's work, but it's critical to have that knowledge. "When you need it, that's a very important credential to have."

The contract is for three years with two one-year extensions.

A dozen potential bidders attended a public hearing about the contract, but only HEHF and Chiawana submitted formal proposals.

DOE previously considered having the U.S. Public Health Service provide services, but decided the agency couldn't stretch its own contracts to cover Hanford by Oct. 1, when the new contract takes effect.

The Public Health Service estimated its costs at Hanford would have been \$7 million per year.

The HEHF and Chiawana bids were evaluated based on experi-

ence and past performance, medical approach, transition plans and cost. HEHF is a private, nonprofit corporation that has been providing services to Hanford workers since 1965. It is currently operating under a contract awarded nearly 10 years ago.

That contract was for five years and was extended by approximately five more years. It expires Sept. 30.

Mike Talbot, DOE spokesman, said the contract was put out to public bid so the health services provider would be on the same performance-based fee system that governs federal contracts, including the others at Hanford.

HEHF will receive a base fee plus additional payment based on how well it performs its duties — the "performance" in the performance-based contract. Matheson said HEHF and DOE still have to negotiate how the foundation's work will be assessed. HEHF's role at Han-

ford will not change significantly under the new contract.

It will provide medical surveillance and monitoring services, first aid, emergency preparedness support, return to work services, counseling, health education and medical exams to workers.

HEHF bid the contract with 96 employees, down from the 120 employees it had last year before it reduced its work force.

Its budget for this year is about \$10 million, a reduction of about 50 percent from 1994-1995, when it had 200 employees and a budget of \$19 million.

It has been rated "outstanding" for the past two years by DOE — the agency's top rating.

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Hanford's B Plant records milestone

The last high-level radioactive wastes have been transferred from Hanford's B Plant to the site's storage tanks, Fluor Daniel Hanford announced Monday.

About 13,000 gallons containing about 3,700 curies of radioactivity were recently transferred as part of efforts to clean out B Plant by this September — four years ahead of schedule.

"No only did acceleration of the closure save us many millions of dollars and reduce the risks inside the plant, it helped us avoid the generation of additional waste that would have to be treated, stored and disposed," said Dave Evans, the Department of Energy's B Plant project manager.

B Plant was one of Hanford's huge chemical processing plants used to remove plutonium from uranium fuel. Over 53 years, B Plant produced about 25 million gallons of radioactive wastes.

Hearings planned on disposition of plutonium

By the Herald staff

Mid-Columbians can have their say Aug. 4 on whether plutonium should be converted to fuel in South Carolina or Texas, but not at Hanford.

Two public sessions, at 1 to 4 p.m. and from 6 to 9 p.m., are planned at the Richland Doubletree Hotel.

In all, five public sessions are planned nationwide to discuss the Department of Energy's recommendations in its draft environmental impact study on getting rid of weapons-grade plutonium.

The other sessions will be Aug. 11 in Amarillo, Texas; Aug. 13 in North Augusta, S.C.; Aug. 18 in Portland; and Aug. 20 in Idaho Falls.

The draft study tackles a significant piece in the disposition of 55 tons of weapons-grade plutonium the United States wants to get rid of as part of disarmament efforts.

Last year, DOE recommended its Savannah River, S.C., site handle immobilizing 18.7 tons of scrap plutonium into a ceramic material. That includes 4.4 tons of scrap plutonium now at Hanford's Plutonium Finishing Plant.

That leaves 36.3 tons — mostly in nuclear weapon cores — that could be converted into mixed-oxide fuel for reactors.

DOE needs a site to dismantle the weapons, remove the plutonium and convert it into a powder. Then, it needs a site to convert that plutonium into mixed-oxide reactor fuel.

DOE looked at Hanford, Savannah River, the Pantex plant near Amarillo and the Idaho National Engineering and Environmental Laboratory.

The draft study recommends:
■ Savannah River or Pantex as the top choices to disassemble the weapons cores.

■ Savannah River as first choice to convert the plutonium into mixed-oxide fuel.

After the meetings, DOE will consider the feedback and release a final environmental study and final recommendations by the end of 1998. A formal decision would be made 30 days later.

DOE to assemble expert panel to help with ground water programs

By John Stang
Herald staff writer

The Department of Energy expects to appoint an expert panel soon to advise it in its efforts to coordinate Hanford's ground water programs.

DOE's Richland office has sent recommendations to its Washington, D.C., headquarters.

Officials there — including Energy Undersecretary Ernest Moniz — are to review the recommendations, then select the panel, perhaps by late this week.

DOE and Bechtel Hanford Inc. officials discussed the panel with about 40 officials, ground water

experts and others Tuesday in Richland. All are involved with or interested in efforts to mesh ground water, vadose zone and possibly Columbia River programs into a master plan.

The first draft is due for public review in October.

About 100 people were nominated to the panel — which is to provide independent advice for planning and implementing the coordinated program. The University of Oregon and University of Washington narrowed the list to 12.

DOE and Bechtel officials initially recommended six from the list to Washington, D.C. But Moniz and other DOE officials are pon-

dering the best number — which could range from five to eight, said Rich Holten, the DOE official handling the master planning.

He declined to say whom Bechtel and DOE Hanford officials recommended.

DOE wants the panel to have a good cross section in its fields of expertise, Holten said.

Hanford might set up some extra panels beneath the main expert panel to tackle specific issues — and may use experts not selected to the main panel, he said.

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DOE extends DE&S's contract to save time, funds

By John Stang
Herald staff writer

Terminating DE&S Hanford's contract probably would have added nine months and another \$75 million to \$100 million to the delays and cost overruns plaguing the K Basins cleanup.

That fact was a big reason in the Department of Energy deciding recently to extend DE&S Hanford's — or Duke's — contract despite frustration with its performance, according to two DOE memos discussed Wednesday at a Hanford Advisory Board financial affairs committee meeting.

The memos also indicate if Duke can get the K Basins project on track in the next year, its contract will be extended another two years.

Duke is Fluor Daniel Hanford's subcontractor in charge of moving 2,300 tons of spent nuclear fuel from the K Basins near the Columbia River to a huge underground vault in central Hanford.

The project suffered numerous management and technical problems, leading to DOE, Fluor and Duke being unable to provide a timetable and cost estimate they can have confidence in.

The predicted project completion date has been delayed from 2001 to 2005. And predicted costs have risen from \$740 million to \$1.4 billion and possibly more.

Duke's two-year contract was to expire Sept. 30. Two weeks ago, DOE approved a Fluor recommendation to extend the contract one year.

If Duke does well in that year, the

contract will be extended to Sept. 30, 2001, the memos said.

A June 29 memo by Charles Hansen, DOE's assistant manager for waste management, and a June 30 memo by DOE's Hanford Manager John Wagoner outlined the factors leading to DOE's decision to extend the contract.

These factors include:

■ Duke and Fluor are willing to stake their future profits on the project on making a November 2000 start date to begin removing fuel from the basins. Details have to be worked out, but potentially fees "in the \$20 million range" could be at stake.

■ Rick Priory, Duke's chief executive officer, said if the contract was put up for bids, Duke would not compete.

■ Rebidding likely would add nine months to the project's timetable and \$75 million to \$100 million to its already mushrooming costs.

■ Only one company from a losing bidding team in 1996's competition for Hanford's management contract — Newport News Nuclear — has voiced continuing interest in the K Basins project. But Duke has a wider range of capabilities than Newport News Nuclear. That means if Newport News Nuclear got the contract, it likely would have to add extra companies to its subcontracting team.

■ Duke and Fluor have meshed their K Basins offices — an arrangement that appears to have helped cure major management problems.

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Richland sessions about Hanford contamination

Gaps in Hanford's scientific understanding of its vadose zone and the geological and chemical forces acting on it are to be discussed today and Friday at the Environmental Molecular Sciences Laboratory at 3335 Q Ave. in Richland.

Today's session will be from 1 to 5 p.m. Friday's session will be from 8 a.m. to 5 p.m. The meetings are open to the public.

It is the latest in a series of meetings and discussion on Hanford's efforts to coordinate all of its ground water, vadose zone and possibly Columbia River programs into a master plan. The first draft is expected to be ready for public comment in October.

Bechtel Hanford Inc. is coordinating the planning effort.

Enterprise companies must expand, Fluor says

By John Stang
Herald staff writer

Hanford's enterprise companies are posting good records on site but are lagging in expanding beyond Hanford, a Fluor Daniel official said Wednesday.

"All the (enterprise companies) in our minds have performed in a very acceptable manner," Ed Penn, Fluor's vice president for project control, told the Hanford Advisory Board's financial affairs committee Wednesday.

But Penn added, "There's no disagreement that we hoped (the enterprise companies) would be more successful at generating non-Hanford business than they have been."

The six enterprise companies were created by Fluor and five of its subcontractors in late 1996 as spinoffs from parts of the old Westinghouse Hanford Co. and two of its old subcontractors.

The six enterprise companies employ about 2,000 people.

The companies' purpose is to officially exist outside of Hanford. But almost all their business is done with Hanford — guaranteed under two-year contracts. This is to enable them to being finding non-Hanford business to wean themselves from the federal site and become permanent Tri-City firms.

But little of those firms' business currently exist outside of Hanford, which disappoints Fluor, Penn said.

The first two-year contracts expire Sept. 30. Fluor wanted to extend all six contracts.

But DOE approved two-year extensions for only five — Fluor Daniel Northwest, Lockheed Martin Information Services, Waste Management Federal Services Northwest Operations, Cogema Engineering Corp., and DE&S Northwest.

But some of those firms will lose their

exclusive holds to varying degrees on some Hanford work. That means they will have to compete with other firms on some Hanford jobs.

Meanwhile, DOE told Fluor to put B&W Protec's security forces contract out for bids.

But DOE believes B&W Protec's performance — especially in the confusion of a 1997 chemical tank explosion at the Plutonium Finishing Plant — does not justify an automatic extension. B&W Protec plans to compete again for the contract.

Fluor expects to send its request for bids on the security forces contract to DOE for approval by Aug. 1.

Penn said selecting a winning bidder could take place by Sept. 30 but said that will more likely occur in October or November. Fluor hopes to have the security contractor in place by the beginning of 1999.

Also Wednesday, the Hanford board committee discussed suggestions on how DOE

should grade Fluor's team for its performance in fiscal 1999.

Fluor is paid solely on reaching performance objectives. That system led to it earning almost \$30 million in fiscal 1997, which is 55 percent of what it could have made.

Fiscal 1998 — with \$50 million at stake — almost is over. Consequently, the Hanford board, the Environmental Protection Agency and the Washington Department of Ecology are suggesting how DOE should grade Fluor in fiscal 1999.

Suggestions include linking most of the grades to meeting Tri-Party Agreement deadlines and standards, giving bonuses for completing work ahead of schedule or under budget, penalizing contractors for cost overruns or delays, reducing overhead and other factors.

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Fluor wants out of Hanford, sources report

Contractor denies trying to sell pact

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — Two years after winning the \$5 billion prime contract at the Hanford Nuclear Reservation, Fluor Daniel reportedly wants out.

The company — concerned that persistent problems at Hanford have tarnished its reputation and convinced that \$30 million in profit isn't worth the headaches — has been informally looking for a buyer for its contracts at Hanford and another Department of Energy site in Fernald, Ohio, sources close to Hanford and in the federal contracting community said.

Mentioned as possible successors are some of DOE's other major contractors, former contractors and companies that would like to land a major contract for the first time. The veritable list of who's who in construction and engineering includes Lockheed Martin, Bechtel, ICF Kaiser, Raytheon, Parsons and Foster Wheeler.

Raytheon, Kaiser and Bechtel originally bid on the Hanford contract. Raytheon, at one point, was believed to be the top choice, but Fluor won out.

A Fluor Daniel spokesman at its Irvine, Calif., headquarters, Rich Maslin, denied the company was considering selling its Hanford contract.

"I can tell you categorically we aren't in negotiations with any of those companies or anyone else," Maslin said, declining further comment.

But in an earlier interview Maslin said the company was in a

Waste:

Hanford glassification plant could be delayed at least a year. Page A3.

"bit of a transition" as a new chief executive officer came aboard and it was not unreasonable to expect there would be a thorough review of the company's direction and operations, including its government contracting business.

Philip Carol, a former president and chief executive of Shell Oil, officially took over as Fluor Corp.'s CEO on Tuesday. Fluor Corp. is Fluor Daniel's parent company.

John Wagoner, head of Hanford operations for DOE, said in a telephone interview from Oak Ridge, Tenn., that he has had no indication Fluor Daniel is thinking of pulling out.

"Fluor has certainly said nothing of that kind to us," he said.

But Wagoner also said Fluor has told him Carol and the board of directors plan to look at their company and consider changes.

"DOE will probably be the last to know if they want to make a change," Wagoner said. "But they legally must comply with the contract and could only be let out with our agreement."

Fluor Daniel's departure from Hanford likely would raise doubts about DOE's much-publicized effort to reform its contracting system. The Hanford management and

State worried about possible delay in glassification plant at Hanford

By John Stang

Herald staff writer

Hanford's waste glassification plant could be delayed at least a year beyond its current target of 2002.

The length of the possible delay, caused by a combination of legal and technical factors, won't be nailed down for a few weeks.

But the Washington Department of Ecology has heard indications the proposed start date could be 2003 or later. Sheryl Hutchison, state ecology department spokeswoman, said her agency is waiting to see what DOE proposes before getting mad and taking action.

"Our position," Hutchison said, "is that if we see them heading down a path where they absolutely can't make (the Tri-Party Agreement deadlines), we're going to say: 'You're out of compliance now.'"

Hanford has 54 million gallons of radioactive wastes in 177 underground tanks. And Hanford's master plan calls for building plants to convert those wastes into glass.

The Tri-Party Agreement — the legal pact governing Hanford's cleanup — calls for DOE to have two parallel plants starting in 2002 to convert wastes into glass.

For a couple of years, DOE had two corporate teams working on designs for glassification plants, one led by BNFL and the other by Lockheed Martin Advanced Environmental Systems.

But in late May, DOE dropped the Lockheed team because of technological concerns.

That left only BNFL's team. And DOE and BNFL are negotiating a multibillion-dollar contract for it to build its plants.

That change to one company instead of two is at the heart of the potential delay to get the project done.

DOE is mulling backup construction proposals by BNFL that could set back the deadline set by the Tri-Party Agreement.

Also, because DOE changed its plans and decided to work with one company, DOE believes it has legal justification for missing the Tri-Party Agreement deadline. It's citing the "alternate path" option covered by the agreement.

George Sanders, DOE's Tri-Party Agreement administrator, sent a June 18 letter to the state saying the situation triggers the "alternate path" as outlined in the Tri-Party Agreement.

The alternate path is the backup plan if the primary plan to build two parallel plants under privatized contracts fell through. Privatization is the concept in which

BNFL puts up all the upfront money and won't get paid until glass is produced.

The state, however, does not believe the proposed BNFL-DOE contract "even closely resembles" the alternate path called for in the Tri-Party Agreement, according to a July 8 letter to DOE from Mike Wilson, the state's nuclear waste program manager.

Wilson added in his letter that this switch to the alternate path would violate the Tri-Party Agreement. His letter stated the final BNFL-DOE contract would likely lead to some modifications in the Tri-Party Agreement.

Hutchison said Thursday that the state wants to hold off action until DOE submits the proposed contract to Congress. Congress wants 30 days to review it.

No specific length of delay was mentioned in the state's and DOE's letters. But several weeks ago, Hanford officials said the Tri-Party Agreement sets a 2003 backup date to start glassification if the primary plan fails.

On Thursday, DOE's Deputy Hanford Manager Lloyd Piper and BNFL spokesman Geoff Harvey declined to discuss the potential delays.

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Hanford schedule concerns businesses

By Chris Mulick

Herald staff writer

It figures to be pretty quiet in Richland a week from today — too quiet, some Richland business owners say.

That's because new work schedules at Hanford give workers every other Friday off.

It's called an "eight-nines" work schedule, designed to give workers more time, in the form of a three-day weekend every other week, to spend with their families.

Workers for the Washington Public Power Supply System and the U.S. Department of Energy also are working under the schedule, and about 320 office workers at Siemens Power Corp. in north Richland also are giving it a try on a trial basis.

"It's seen as a way to add more balance in the lives of our employees," said Mike Berriochoa, a spokesman for Fluor Daniel, which implemented the schedule this spring. "This can be a very stressful place."

But all the morale boosting isn't doing anything for some Richland businesses owners, who say it's costing them customers. They fear workers aren't sticking around to spend their money.

METRO/NORTHWEST

Hanford retirees begin getting free medical checks

By John Stang

Herald staff writer

Luther Cavender gets annual physical checkups, but the retired Hanford pipe fitter figured an extra medical check couldn't hurt.

"They may find something I don't know about," said Cavender, 72, of Kennewick, who worked from 1954 to 1987 at an array of Hanford facilities.

He knows he has asbestos in his lungs. And he feels he has a good handle on his health.

But Cavender wasn't sure about

beryllium — which can float in the air as tiny flakes and lodge in lungs to possibly cause chronic beryllium disease, which can be fatal in some cases if allowed to linger.

So a couple of weeks ago, he became the first Hanford retiree to go through a medical check under a free health-screening program for former Hanford building trades, construction and maintenance workers. He will know the results in a few weeks.

The Central Washington Building and Construction Trades Council

set up the screening office at 824 W. Lewis St. in Pasco.

The office coordinates medical checks on former workers for Hanford-related health problems. These would include exposure to asbestos, beryllium, cadmium, chromium, lead, mercury, noise, radiation and solvents.

The actual medical checks take place at Kania Clinic in Kennewick, Lourdes Business Health Clinic in Richland and Riverview Family Medicine in Pasco.

The program expects to interview

about 14,000 former Hanford workers over four years, with an estimated 6,000 to get medical checks. So far, about 800 retired Hanford workers have been interviewed.

"We're just kind of gradually cranking up," said Hank Hartley, a coordinator for the program.

The Department of Energy is providing about \$5 million for the program. So far, this is the only such DOE-backed program, although similar ones are being considered for cities at other DOE sites.

The program targets former employees who did at least 5,000 hours of work at Hanford or had significant exposure to dangerous substances.

The program contacts people through unions, other agencies and brochures.

Former workers contact the center, where the staff will conduct work-history interviews and forward the information to a nurse coordinator in Seattle, who will review those histories.

If a former worker meets program

criteria, the Pasco center will set up a medical exam with an area doctor.

The program will pay for the screening.

For information, people can call 800-866-9663.

A similar but separate program for Hanford's production workers is being managed by the University of Washington. It can be contacted by calling 800-419-9691.

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Hanford eyes new way to treat aquifer

By John Stang

Herald staff writer

Hanford hopes to expand a ground water fix-it experiment in the D Reactor Area in the upcoming year.

The experimental method is called "redox manipulation."

And so far, it appears to cheaply stop the flow of highly toxic, non-radioactive chromium from the D and DR reactors' area toward the Columbia River, a few hundred feet away.

Different types of chromium were used to slow corrosion in Hanford's reactors when they ran, and for decontamination after the reactors were shut down.

Drinking excessive amounts can lead to a variety of stomach and intestinal problems.

But the immediate threat is to the Columbia River's fish — especially spawning salmon.

Chromium goes through the membranes, gills and mouths of baby fish — and could eventually kill them.

Underground chromium plumes are at the H, D and K reactor areas.

The standard procedure is to pump water out of the aquifer, treat it and return it to the ground. This is expensive and could take decades to finish.

The annual budget for a chromium pump-and-treat facility could run from \$1.7 million to \$2.7 million, said Mike Thompson, the DOE official in charge of Hanford's ground water pro-

grams. That prompted DOE — with the Washington Department of Ecology's encouragement — to get Pacific Northwest National Laboratory to experiment with redox manipulation as a potentially cheaper and more efficient way to stop the subterranean flow of chromium.

PNNL began experimenting at one well in the H Reactor Area in 1995. Then, last October, PNNL started a bigger operation at a bigger, more potent chromium plume in the D Reactor Area.

The method works like this.

The D Area chromium plume is about 1,000 feet wide. PNNL put five wells in front of a 150-foot-wide segment of that plume, which is about 100 feet underground.

Sodium dithionite is injected into the ground through the wells where it reacts with the iron in the aquifer. The sodium dithionite is then removed, but the iron material then acts as a filter to convert the toxic mobile chromium into a benign, non-mobile version of chromium of the type usually found in nature.

So far, this method has worked, said John Fruchter, PNNL's lead scientist on the project.

However, one to two more years of study are needed before PNNL and DOE will be satisfied, said Fruchter and Thompson.

A potential problem to be studied is some oxygen being filtered from water going through the iron — and whether oxygen would return to the ground water by the time it reaches the river

to seep up through the bottom. That is where baby salmon — craving oxygen — are hatched.

However, Thompson, Fruchter — and Nancy Uziemblo, the state ecology department's technology activities coordinator at Hanford — voiced optimism about the method. "It's a good approach," Uziemblo said.

DOE and PNNL hope to find the money in fiscal 1999 to expand the wells from a 150-foot-wide front to a 700-foot-wide front.

The ground water program has requested \$1.5 million from a special DOE fund to speed cleanup programs and another \$350,000 in standard ground water funding. Thompson and Fruchter expect to know in a few weeks if the money is available.

Once the chemical injections are done, the annual upkeep becomes cheap, they said. It will take about \$100,000 annually to monitor the original five wells.

If this method works in the D Reactor Area, it might be set up in the K and H areas, Fruchter said.

This technique was recently named among R&D Magazine's top 100 technological innovations in 1997.

PNNL is gearing up to try this technique on a huge underground plume of trichloroethylene — a solvent used with tanks and military vehicles — at Fort Lewis.

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TRIDEC asks DOE for diversification money

By John Stang

Herald staff writer

The Tri-Cities is asking the Department of Energy for \$13.8 million in economic diversification money for fiscal 1999 and 2000.

The requests cover a range of economic development programs, plus construction of several water and sewer lines around the Mid-Columbia.

It is too early to tell how that request will fare, said Sean Stockard, economic transition program director for the Tri-City Industrial Development Council.

TRIDEC is the Mid-Columbia's designated manager for so-called "3161" fund from a DOE program to cushion the affect of job cuts and to help diversify economies in DOE's communities.

Congress still is mulling over appropriations for 3161 funds in 1999 — with a few of the requests extending through 2000. And then DOE has to divide up those appropriations — a process likely to extend to late 1998.

So far, DOE has appropriated \$16.5 million in "3161" money to various Tri-City governments and economic programs since 1994. Roughly \$10 million of that has been spent. However, the remaining money is already contractually locked into several projects and is to be spent when the bills show up, Stockard said.

The \$10 million spent so far can be linked to 1,133 jobs by last April — including 177 going to displaced Hanford workers.

About 100 new businesses — mostly small ones — have been created with the money. So far, few have gone under, Stockard said.

But he acknowledged new small businesses normally have high mortality rates, and some are struggling. TRIDEC is tracking their performance.

Now, TRIDEC has submitted a list of requests totaling a \$13.8 million to DOE's Office of Worker and Community Transition — a department that exists separately from DOE's environmental management programs.

That request is divided between \$4.276 million for various economic development programs and \$9.58 million for road, railroad, water and sewer improvements tailored for helping industrial growth.

The economic development requests include money to help set up a Pasco commercial kitchen for specialty foods businesses to replace the one closed recently in Prosser and several marketing and public relations programs to attract businesses to the Mid-Columbia.

The requests also include money to start clinical trials for a nuclear medicine program in Richland, continuing entrepreneurial leaves of absences at Battelle-Northwest and continuing a venture capital fund.

Meanwhile, there are \$9.58 million in infrastructure requests by Benton County, the area's three ports and several Mid-Columbia cities.

Several requests are to expand water and waste water lines and

facilities at existing and potential industrial sites. They also include connecting some roads in the Finley area and extending a rail spur into the Horn Rapids Industrial Park area.

The cities, counties and ports have put up about \$23 million in matching funds and in-kind services as their end of the \$9.58 million, Stockard said.

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Second study maintains FFTF can't meet demand for tritium production

By Les Blumenthal

Herald Washington, D.C., bureau

WASHINGTON — A new federal study circulating on Capitol Hill raises concerns about restarting the Fast Flux Test Facility at Hanford, concluding the experimental reactor could not meet the current demand for tritium.

The new study puts the nation's projected tritium needs at roughly the same level as a 1996 study's most optimistic prediction of what the FFTF could produce.

The current need is 3 kilograms per year — and could drop to 1.5 kilograms annually, according to the new report.

The FFTF easily can produce 1 kilogram a year, with a "reasonable confidence" of reaching up to 1.5 kilograms annually, according to the so-called "Jason" report by an independent expert panel brought in by the Department of Energy in 1996.

"The FFTF cannot meet the current annual tritium production requirements established by the DOD (Department of Defense)," the new report said, while still meeting requirements of arms-limitation treaties. The report was obtained by McClatchy Newspapers.

The latest review by several federal agencies also says using either plutonium or highly enriched uranium to fuel the FFTF would violate nonproliferation commitments and policies of President Clinton and his administration.

The United States and Russia have agreed excess weapons-grade plutonium — which could end up as reactor fuel — will not be used "for nuclear explosive purposes." Tritium is used in atomic bombs.

Despite the study's findings, Rep. Richard "Doc" Hastings, R-Wash., said Monday he had been assured by the Department of Energy that FFTF still is under review as a possible source of tritium.

Hastings, however, was concerned about the study's impact.

"I'm very disappointed with this review, and I'll be even more disappointed if DOE uses it as an excuse to bypass FFTF," Hastings said.

standby for several years as Washington decides if it fits into a tritium production strategy.

Boosters of restarting the reactor believe it also could eventually become a major source of medical isotopes used to diagnose and treat various diseases. But the medical isotope market is in its infancy now, so supporters see tritium production as a short-term solution to make operating the reactor viable.

Restarting and operating the reactor could provide about 1,000 jobs at Hanford.

The review, required by last year's defense authorization legislation, focused on whether using a commercial reactor to produce tritium would violate international nuclear nonproliferation agreements.

Although written by the Energy Department, the review included the National Security Council, the Defense Department, the State Department, the Arms Control and Disarmament Agency, the White House Office of Science and Technology Policy, the Nuclear Regulatory Commission and the office of the vice president.

While raising questions about restarting the FFTF, the report gave a boost to the possible use of a civilian light-water reactor, saying nonproliferation issues there were "manageable."

As expected, the review found there were no nonproliferation issues involved with building an accelerator to produce tritium.

As for using FFTF temporarily until a accelerator could be built or a civilian reactor converted, the review said even if the START II arms control treaty eventually is adopted by the Russian Duma, it is doubtful FFTF could produce enough tritium.

Under the START I treaty, the United States and the Russians are required to reduce their number of warheads to about 6,000 each, roughly half of Cold War levels. START II, negotiated by the Bush administration, would require a further reduction to between 3,000 and 3,500 warheads or about two-thirds of Cold War levels.

Gas leak empties Richland lab for 5 hours

By the Herald staff

A research building at Pacific Northwest National Laboratory in Richland was evacuated for five hours beginning at 10 a.m. Tuesday because of a natural gas leak.

Four researchers, including two university students, were taken to the nearby Hanford Environmental Health Foundation for evaluation after complaining of mild cases of nausea and headaches. They were released a few hours later.

The building was evacuated after staff members in the Physical Sciences Laboratory on Battelle Boulevard started smelling the gas in one hallway. The Richland Fire Department and Cascade Gas were called.

Once the leak of natural gas in one of the labs had been found and the natural gas supply turned off, workers were allowed back in the building. Natural gas is used for research in some of the analytical chemistry labs in the building.

The building also has offices and other chemical and laser laboratories, but no radiological work is done there. The lab's vent systems had been shut down Tuesday for routine maintenance, but lab officials did not know if that led to the problem being detected.

Glassification to take more time, money

By John Stang

Herald staff writer

A major trade-off is being proposed for Hanford's biggest cleanup project.

The proposal is to increase the price tag and delay the start-up date by four to five years on the plants that are supposed to convert radioactive wastes in Hanford's tanks into glass.

In return, the facilities will have much longer lives — 30 years instead of five to nine years — with more flexibility on accepting wastes and expanding over time.

That's the proposed agreement the Department of Energy and BNFL Inc. sent to Congress on Tuesday. Congress now has 30 days to study it with DOE and BNFL hoping to sign an initial 10-year contract after that review.

"We are now ready to move forward on this project," DOE's Hanford Manager John Wagoner said Tuesday.

"The bottom line is we need to move forward aggressively and get this job under way," said U.S. Rep. Doc Hastings, R-Wash.

The new estimated target price to build and operate a high-level waste plant and a low-level waste plant is \$6.9 billion in 1997 dollars over 10 years. The original estimates range from \$3.2 billion to \$6.7 billion — depending which scenario is used.

Meanwhile, Hanford would begin glassifying wastes in 2006 or 2007, compared with



Wagoner

the original 2002 or 2003 — again depending which scenario is used.

The proposed contract gives BNFL a deadline of 2007 to begin glassification, but it has a decent chance of starting in 2006.

On the other hand, the plants' life spans of five to nine years would be extended to 30 years.

All this will require negotiated changes in the Tri-Party Agreement — the legal pact under which the Washington Department of Ecology and the U.S. Environmental Protection Agency enforce Hanford's cleanup.

The proposed contract "is missing a lot of details. It's going to take us a couple of weeks to analyze what it says and what it doesn't say," said state ecology department spokeswoman Sheryl Hutchison.

Hanford has 177 underground tanks

holding 54 million gallons of wastes.

Hanford's master plan has been to hire two corporate teams to build and begin operating glassification plants by the Tri-Party Agreement's deadline of 2002. BNFL Inc. and Lockheed Martin Advanced Environmental Systems each led a team.

Under the "privatization" concept, no team would be paid until it produces glass.

But DOE eliminated Lockheed in May because of technological concerns — leaving only BNFL's four-company team.

Since the Tri-Party Agreement calls for two teams building plants simultaneously, DOE argues that shifting to one team kicks in a backup clause in the pact. That backup clause pushes the operating deadline from 2002 to 2003.

The state disagrees with that interpretation — leading to a dispute whether the

current legal deadline is now 2002 or 2003.

Although BNFL submitted a design package aimed at a 2002 start date, it also analyzed the situation and proposed some alternatives.

As BNFL's designers looked at growing requirements, a 2002 start date appeared unfeasible, said Maurice Bullock, president of the BNFL team.

"We looked at some very fast-track schedules. ... But quite frankly, they presented a high risk, and we would get into a Pit 9 situation. DOE could see it was not sensible to force a contractor to meet an unrealistic schedule," Bullock said.

"Pit 9" refers to a troubled DOE privatization project at Idaho Falls that faces huge cost overruns.

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METRO/NORTHWEST

Severance benefits extended for enterprise firms

By John Stang

Herald staff writer

Current severance benefits for workers at Hanford's enterprise companies' will be extended Jan. 1, 2000.

Originally, any of those workers laid off after Sept. 30 wouldn't have been eligible for so-called "3161" benefits.

But Sen. Patty Murray, D-Wash., asked the Department of Energy in June to extend the benefits program, a request DOE approved this week.

DOE's 3161 program addresses several economic matters pertaining to work force cuts — including severance benefits.

When Fluor Daniel Hanford took over the site in October 1996, workers from three Hanford companies were split among

13 new companies. Seven of those exist "inside the fence" and are standard DOE contractors.

About 2,000 workers ended up in six "enterprise" companies — which work mostly at Hanford, but also seek non-Hanford business.

The six enterprise companies officially exist outside of Hanford.

That sparked worries among numerous workers two years ago about being shifted — with no say-so on their part — to companies not covered by DOE contractor severance benefits under the 3161 program.

Consequently, DOE kept 3161 benefits for the enterprise companies' employees for two years — a period that ends Sept. 30.

Those benefits include medical benefits, education and retraining assistance, help

in relocating, and severance pay based on total time at Hanford.

Earlier, Murray had sent two staff members to talk to various Hanford employees — including some from enterprise companies — about worker issues. That prompted her June 26 letter requesting the benefits extension.

Murray's letter said the enterprise companies "remain on somewhat tenuous ground" in efforts to obtain non-Hanford work.

"These employees were forced to take a great risk when they signed up with these newly created enterprise companies," she said in a written statement.

On Thursday, Robert DeGrasse Jr., director of DOE's Office of Worker and Community Transition, wrote Murray to say

DOE approved the extension.

"We have taken this action to assure fair treatment of workers in light of the limited success these companies have had to date in securing work not related to the Department of Energy," DeGrasse wrote.

He continued: "In addition, changing conditions for many of these contracts, scheduled to take place on Oct. 1, 1998, could have work force implications that will require separating employees."

That is an apparent reference to five enterprise companies getting two-year contract extensions. But some of those firms will lose their exclusive holds on Hanford work and will have to compete with other firms on some Hanford jobs.

The five companies are Fluor Daniel Northwest, Lockheed Martin Information

Services, Waste Management Federal Services Northwest Operations, Cogema Engineering Corp. and DE&S Northwest.

The contract of the sixth enterprise company — B&W Protec — will be put up for bids.

In a related matter, Murray's June 26 letter talked about an "employee leasing" proposal she liked for Hanford's non-construction union workers.

The proposal calls for non-construction contractors and subcontractors to use Hanford Atomic Metal Trades Council workers as long as skills and expertise requirements are met. That proposal is being discussed at DOE and the agency will respond later, DeGrasse wrote.

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