

Schools join training bid at Hanford

By JOHN STANG

Herald staff writer

The Tri-Cities' two colleges have joined a fledgling Hanford-related company to bid on providing training services at Hanford.

Washington State University at Tri-Cities and Columbia Basin College — along with Atlanta-based Onsite Engineering & Management Co. — have joined Three Rivers Associates on its bid.

Three Rivers Associates' 40 employees include at least 20 Fluor Daniel Hanford workers expected to be "outsourced" when the contract is awarded.

"Outsourcing" is the practice of transferring Hanford jobs and workers to non-Hanford firms.

The contract is expected to be awarded by the end of December with the new training company to assume its duties March 1, said Fluor spokesman Craig Kuhlman.

Fluor's policy calls for it not to disclose the number of bidders before a contract is awarded. Monday was the deadline to submit bids.

Right now, Hanford trainers provide classes in a wide range of industrial and nuclear related topics — from how to put on radiation equipment to how to safely climb scaffolding.

Hanford officials think transfer-

ring training and other services to off-site companies can save money by avoiding Hanford's high overhead costs.

The idea is that an outside company also will seek other non-Hanford clients, spreading out its operating costs and helping wean the Tri-City economy from its dependence on the nuclear reservation. The proposed training services contract would be for three years with two one-year renewal options.

Any company bidding on the contract is required to offer jobs to the existing Hanford training services workers at their current salaries.

WSU-Tri-Cities and CBC have the educational experience, especially in working with Hanford employees, to boost the team, said Pat Gardner, president of Three Rivers Associates.

Also, the WSU-Tri-Cities campus contains a new University Center for Professional Education, which would provide room for some training. The center is self-sustaining, and not supported by tax dollars, according to WSU. Onsite Engineering & Management provides the financial backing for the bidding team, and has a huge pool of experts to bring in for specific training needs, Gardner said.

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Letter backs FFTF restart

By ANNETTE CARY

Herald staff writer

The lead author of a National Institute of Medicine report on the supply of medical isotopes has signed a letter in support of restarting the Fast Flux Test Facility to produce medical isotopes.

The report had been cited by opponents of restarting the FFTF, who believed it showed the FFTF was not needed to supply the isotopes.

The letter to Secretary of Energy Federico Peña also is signed by two Nobel laureates and some of the most prominent doctors in the field of nuclear medicine. It was sent Wednesday by the Nuclear Medicine Research Council in Richland.

Opponents to restarting the FFTF have cited the 1995 report compiled for the Institute of Medicine by a committee led by James Adelstein, the dean of academic programs at Harvard Medical School. At issue is whether demand for medical isotopes will increase enough to justify using the FFTF to produce the nuclear medicines.

Fluor unveils limited layoffs

By JOHN STANG

Herald staff writer

Fluor Daniel expects to lay off fewer than 500 workers in 1998.

How many fewer is uncertain.

Also uncertain is when the layoffs would occur and how they would be spread out.

One thing that is certain is the 60 days advance notice that was given to laid-off Hanford workers in the past will be trimmed to two weeks.

Among other major Hanford contractors, Battelle-Northwest is expecting to add a few workers over the year, while Bechtel remains uncertain because its budget is not yet firm.

Fluor sent its work force restructuring plan to the Department of Energy this week.

It addresses expected work needs, attrition predictions, possible new hirings, layoffs, efficiency measures, available funds and skills needed for fiscal 1998, which began Oct. 1.

FFTF protest planned Saturday in Richland

By the Herald staff

A rally to protest the possible restarting of the Fast Flux Test Facility is scheduled from 11 a.m. to noon Saturday in front of the Federal Building in Richland.

The rally is being organized by the Spokane-based Hanford Education Action League and the Portland-based Hanford Watch.

Both groups oppose the proposed tritium production mission for the FFTF, primarily because tritium is used to boost the explosive power of nuclear weapons.

The Department of Energy is

studying whether the dormant FFTF should be restarted with a short-term mission of producing tritium as a bridge to a later, long-term mission of producing medical isotopes.

For information, call HEAL at 509-326-3370.

Congress to plan next year how to pay for tank wastes

By JOHN STANG

Herald staff writer

Congress will have a better idea next year on ways to set aside money for treating Hanford's tank wastes, said U.S. Rep. George Nethercutt.

Nethercutt, R-Wash., on Tuesday visited Hanford for the first time since he has been in Congress.

Hanford plans to turn 54 million gallons of radioactive wastes in its underground tanks into glass.

Two corporate teams are supposed to submit plans in January on how they will build plants to begin converting some of those wastes into glass beginning in 2002.

The Department of Energy is to

decide in May whether to accept both, one or neither plan.

The plan — dubbed "privatization" in Hanford jargon — calls for DOE not to pay either team until they produce glass logs. Then the bills will come, totaling as much as \$4 billion from 2002 to 2007.

Congress has been reluctant to set aside money in advance, citing squeamishness about DOE's track record, especially with cost overruns on a project operating under a similar funding scheme at Idaho Falls.

Congress has approved less than half of what DOE requested for 1997 and 1998 to put into the reserve that eventually will pay for Hanford's tank wastes.

Nethercutt likes privatization and

noted smaller allocations now could lead to bigger bill-paying obligations later. "I hate to see us get hit with a huge bill later," he said.

But he noted Hanford's privatization plans have not scored high with a Congress facing many competing budget requests.

One reason is Congress has "operated in a vacuum" on what the proposal will need, he said. The two corporate teams have yet to submit their financial figures.

When budget debates begin in 1998, Congress will have more solid figures on privatization, Nethercutt said. "They'll know more and can make better judgments," he said.

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Medical isotope candidates for FFTF production*

Isotope	Disease treatment/diagnosis
Copper 67	Lymphoma, breast cancer, rheumatoid arthritis, colorectal cancer
Lutetium 177	Bone pain relief, heart disease (restenosis)
Phosphorus 32	Leukemia, bone pain relief, rheumatoid arthritis, pancreatic cancer, head/neck tumors, ovarian cancer
Samarium 153	Leukemia, spinal cord tumors, bone pain relief
Thorium 229	Leukemia, prostate cancer, melanoma, breast cancer, colorectal cancer, lung cancer, lymphoma, ovarian cancer

* A sampling of the 20 primary candidates.

SOURCE: FFTF Standby Project Office Herald/Sherry Emery

FFTF benefits outlined

Report cites growing demand for medical isotopes

By ANNETTE CARY
Herald staff writer

A boom in demand for medical isotopes could have sales of isotopes paying 60 percent of operating costs at Hanford's Fast Flux Test Facility within 10 years of a restart, according to a new report.

By 2015 to 2020, the entire \$88 million annual cost of FFTF operations might be covered by medical isotopes, the report found.

It was drafted by the FFTF Standby Project

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- **STUDY:** Hanford report recommends environmental impact study be conducted on FFTF.
- **MEDICINE:** Tri-Cities Cancer Center breaks ground on new addition.

Office, a joint operation of Pacific Northwest National Laboratory and Fluor Daniel Hanford.

In January, Energy Secretary Federico Peña asked the office to compile a feasibility study to

help him decide in 1998 whether to order further studies on restarting the FFTF or shut it down for good.

At question is whether the FFTF could be restarted with a mission of producing tritium for weapons and phase in a second mission of producing isotopes for medical diagnosis and treatment.

The report concludes the project is feasible — with the reactor producing as many as 30 kinds of medical isotopes. And the medical isotope

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Approval of irradiated beef opens door for FFTF

By the Herald staff and The Washington Post

When the federal Food and Drug Administration announced Tuesday that irradiation could be used to kill germs on beef, Hanford researchers were pleased.

Here's why:

- Production of cobalt 60, the isotope now used for most food irradiation, could provide another reason for the Fast Flux Test Facility to be operated again, said Bob Schenter, a staff scientist at the Pacific Northwest National Laboratory.
- Cesium, another isotope that has potential

for irradiation work, rests in large quantities at Hanford.

Food irradiation will produce bigger markets for Mid-Columbia agricultural products.

"It gets scientists working with people in the agriculture community, raising more apples, because they can be stored longer," Schenter said.

Food irradiation kills germs that cause spoilage, illness and even death without harming the food or making it radioactive.

Right now, virtually all cobalt 60 used in the irradiation industry comes from Canada.

But FFTF can produce cobalt 60. "It was

one of the first isotopes produced at FFTF in 1986; it was very high-quality cobalt," Schenter said.

Cobalt sales could help fund the reactor's operation while a market for another FFTF product — therapeutic medical isotopes — matures.

Scientists, including several Nobel laureates, have said the medical isotopes hold great promise in curing cancer and other diseases.

However, money must be found to operate FFTF for at least a decade while physicians receive federal permission to use the isotopes on a large scale.

One other solution: Use FFTF to produce tritium, an isotope needed for hydrogen bombs.

"(Irradiation) complements the tritium mission. It might even be the replacement — the financing bridge — we were talking about," Schenter said.

In announcing Tuesday that it had approved the irradiation of meat to kill disease-causing microorganisms, the Food and Drug Administration said it would improve the safety of the nation's food supply.

The technology generally is considered

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Hanford metal poses health risk for employees

By JOHN STANG
Herald staff writer

Hanford workers could be at risk of contracting a potentially fatal respiratory disease from exposure to beryllium in 43 of the site's buildings, a University of Washington researcher said Wednesday.

Studies at other Department of Energy sites show a 1-in-100 chance that even a very slight exposure can give someone chronic beryllium disease, Dr. Tim Takaro said at a Hanford health conference in Richland.

Those odds are considered bad in epidemiological circles, he noted.

That ailment — characterized by

shortness of breath, coughing, fatigue, weight loss or lots of phlegm — could be fatal if allowed to linger.

Forty-three Hanford buildings contain beryllium somewhere within them, Takaro said. Most are in the 300 and 3000 Areas with several scattered elsewhere, according to a report by the University of Washington Occupational and Environmental Medicine Program.

"Beryllium is an important problem at Hanford," said Takaro, a UW physician and researcher who was on the team that wrote the report.

DOE has requested that the University of Washington design a plan

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Environmental Study urged for FFTF restart

By JOHN STANG
Herald staff writer

needs the tritium mission to financially get on its feet to produce medical isotopes in financially viable amounts later.

Consequently, the FFTF needs the dual tritium-and-isotope mission to get off the ground.

The idea is the tritium mission would eventually phase out while the isotope mission gradually increases — which makes the concept palatable to Washington's political leaders.

Critics charge the isotope mission is a political smoke screen to boost the tritium mission.

The FFTF Standby Project's study concludes the reactor can produce about one kilogram of tritium annually for its first two years, easily kicking up to 1.5 kilograms a year after that.

It is unknown how much of that would meet the nation's need for tritium.

But the FFTF has not been proposed as the primary tritium source. Rather it is proposed as a backup or interim source as DOE either converts a commercial reactor or builds an accelerator in the South to be the primary source.

The FFTF could go on line as a tritium producer a few years faster than the other two.

Meanwhile, isotope production could begin immediately and simultaneously with the tritium mission, said Apley and Hughes.

Initially, the isotopes would be produced in small research-level amounts. As markets develop for mass-production levels of medical isotopes, the reactor would increase its output, they said.

Meanwhile, tritium production would shrink as the nation's needs decrease. But this depends on future nuclear arms reductions by the United States and Russia and how fast tritium production cranks up in the South.

Tritium and medical isotopes are produced in similar ways. Neutrons bombard targets in long tubelike assemblies within the reactor. Operators would insert different assemblies into the reactor to create the desired product — tritium or medical isotopes.

The \$371 million needed to get the reactor ready for producing tritium would likely come from DOE's defense program budget and not from the environmental cleanup budget, Apley and Hughes said. The \$64 million to produce medical isotopes would likely come from DOE's Office of Nuclear Energy.

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Hanford part of worldwide study on radiation-cancer connections

By JOHN STANG
Herald staff writer

The likelihood of former and some current Hanford workers getting cancer or leukemia is being looked at in a 14-nation study.

That study is expected to be completed in 2000, and takes a statistical step forward from a similar 1994 study, said Jack Fix, a Pacific Northwest National Laboratory staff scientist speaking at a Hanford health conference in Richland.

About 175 people attended the conference Wednesday and Thursday, which featured several sessions on public health, workers' health and ecological health matters pertaining to Hanford.

The conference was coordinated by the University of Washington and was sponsored by a number of agencies, schools and organizations interested in Hanford.

In one session, Fix discussed a 1994 study by the International Agency for Research on Cancer at several nuclear-related sites in England, Canada and the United States to look for links between radiation exposure, and cancer and leukemia.

The sample of 95,673 workers — whose medical records stretch

from the 1940s to the late 1980s — contained 5,976 who died of cancer and 119 who died of leukemia.

The study showed no association between radiation exposure and the cancer deaths.

But the same study showed more people receiving higher radiation doses died of leukemia, but a direct cause-and-effect could not be firmly established.

Also, the sample of 119 leukemia victims was small and presented statistical reliability problems.

So now the International Agency for Research on Cancer is conducting a second similar study on about 500,000 workers in nuclear fields spread across 14 countries — a much larger statistical sample. That is expected to be done in 2000, said Fix, who is on the project's dosimetry committees.

Hanford workers were included in both studies.

Also at the conference, Roger Dirkes, PNNL's project manager for surface environmental surveillance, discussed which radioactive substances from Hanford appear in greater amounts downstream from the site compared with upstream readings.

Radioactivity in the Columbia River could come from upstream of Hanford; come from Hanford but

dissipate or decay quickly; or flow south from the site.

PNNL's observations in 1996 noted four radioactive substances from Hanford that have flowed south to Richland or McNary Dam — all in tiny concentrations.

Iodine 129 and tritium from Hanford have been found in samples near Richland. But those substances were in concentrations that were tiny fractions of state water quality limits, Dirkes said.

Meanwhile, strontium 90 and cobalt 60 were found in tiny amounts on fine silts collected near McNary Dam. No state limits have been set on these substances in river silt.

None of these substances has increased in concentrations over the past several years Dirkes said, noting they are decaying.

PNNL and other agencies tracking contaminants in the river are keeping an eye on the subterranean radioactive substances in central Hanford seeping toward the river, Dirkes said. Estimated travel times range from 20 years to 100 years, giving scientists ample time to prepare to track them if and when they reach the river, he said.

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Hanford workers get beryllium information

Instructions went to Hanford workers Thursday on who to contact regarding potential beryllium exposure.

Beryllium is a metal used in some nuclear-related activities that can enter the lungs when it is a dust. Exposure can lead to chronic beryllium disease, that could cause respiratory problems and could be fatal if allowed to fester. Forty-three Hanford buildings contain beryllium.

The symptoms — shortness of breath, coughing, fatigue, weight loss — resemble many other ailments. A blood test is needed to see if the disease is present.

Current Hanford workers seeking information were told to contact their supervisors, industrial hygienists, or the Hanford Environmental Health Foundation. The HEHF phone number is 373-3729.

A contact point for former Hanford workers — who are expected to make up the majority of exposed people — will be set up soon and published in the Herald.

Cleanup speed frustrates board

By JOHN STANG
Herald staff writer

Hanford got dubbed a "bureaucratic Beirut" Friday.

The term surfaced as Hanford Advisory Board members wrestled with an inertia that's plaguing board members and Hanford cleanup.

The 32-member Hanford Advisory Board represents the entire Hanford political spectrum from regional activist groups to Tri-City interests.

The board provides feedback and suggestions to the Department of Energy and Hanford's regulatory agencies.

Since any board stance requires near unanimous consent, it has been highly influential on Hanford matters.

However in recent months, board members grew frustrated about the board's effectiveness in pushing cleanup forward.

The board's discussions often ramble. Meetings are split among numerous large and small issues. Board members argue about whether they are micromanaging too much, and whether they are tackling the big picture. The board's positions get watered down to accommodate a wide variety of interests.

Board members also expressed frustration that they cannot point to the completion of any major, tangible project that is visible to anyone outside of inner Hanford circles.

That's despite hundreds of millions of dollars being spent on cleanup, members complained.

Cleanup plans keep changing. New problems keep appearing. Money is always a worry.

"There are people on the site who know what has to be done, and are champing at the bit. ... But we have so many plans to get to the plans, that the jobs are not getting done," said board member Lynne Stembridge, of the Hanford Education Action League.

On Friday, board members discussed zeroing in on fewer major issues while still keeping tabs on lower priority items. The board has not selected yet what its top priorities should be.

The board also looked at several internal structural and procedural changes to make it function more effectively. And it talked about a possible "summit meeting" with advisory boards at other DOE sites in 1998.

Members also talked about being more aggressive in holding DOE to cleanup obligations, especially deadlines set by the so-called Tri-Party Agreement between DOE and state and federal regulators.

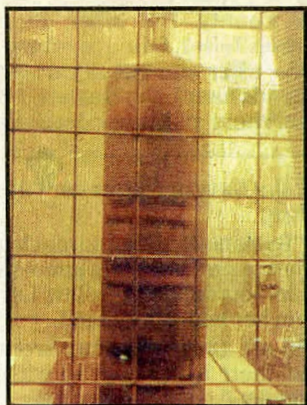
"We need to intimately know the teeth of the law of the (Tri-Party pact)," said board member Paige Knight of Hanford Watch, a DOE watchdog group.

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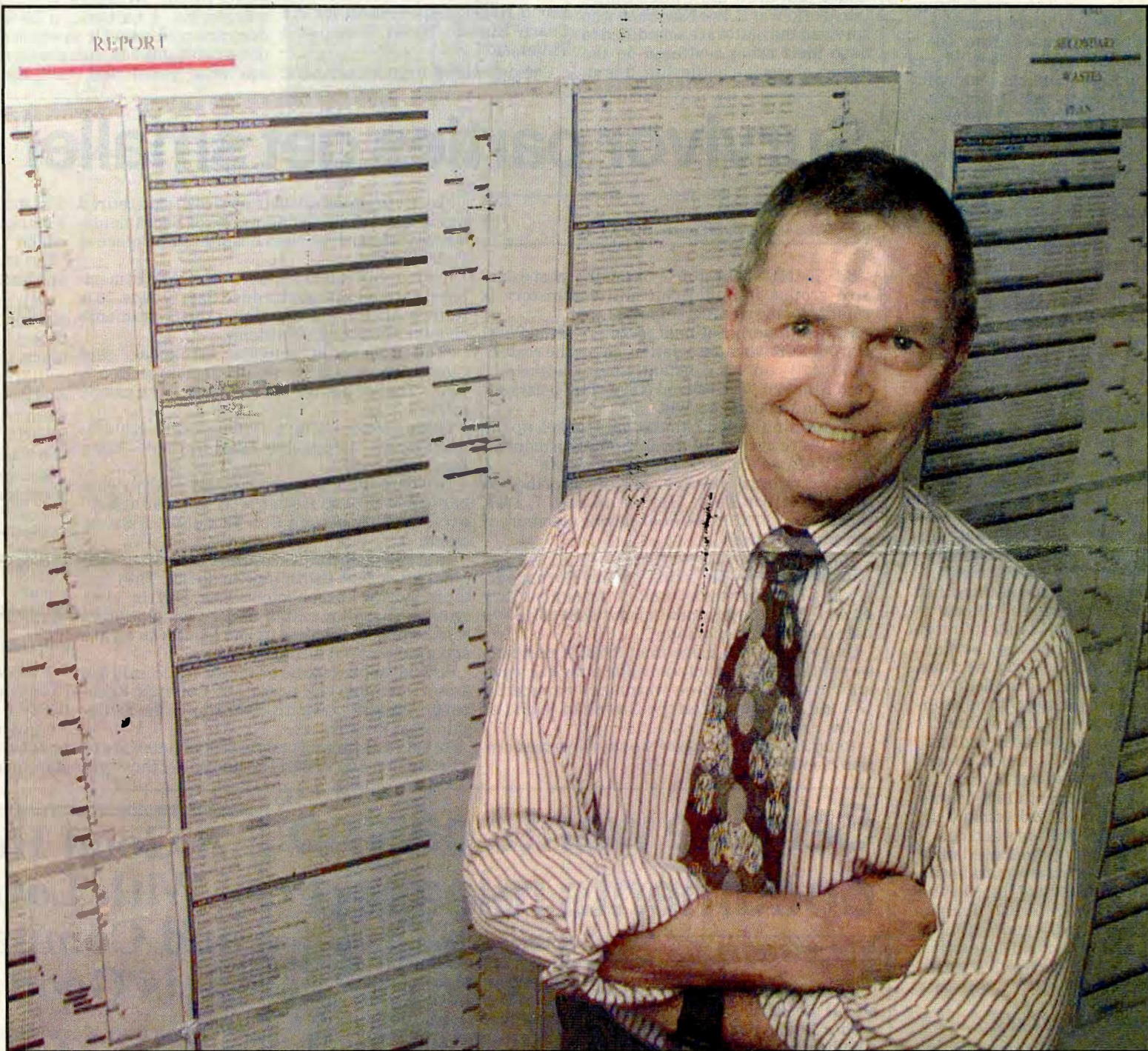
Special report

Vitrification

Hanford's glass solution



REPORT



Herald/Tracy Montauk

Jack Dickey, head of Lockheed Martin's Hanford team, stands in front of a huge wall chart showing the dozens of deadlines the group must meet

in the next few months as plans for glassification of Hanford's nuclear wastes move forward.

Project will be Hanford's biggest and most expensive

By JOHN STANG
Herald staff writer

Sometime in 2002, small radioactive infernos will fire up for the first time in central Hanford.

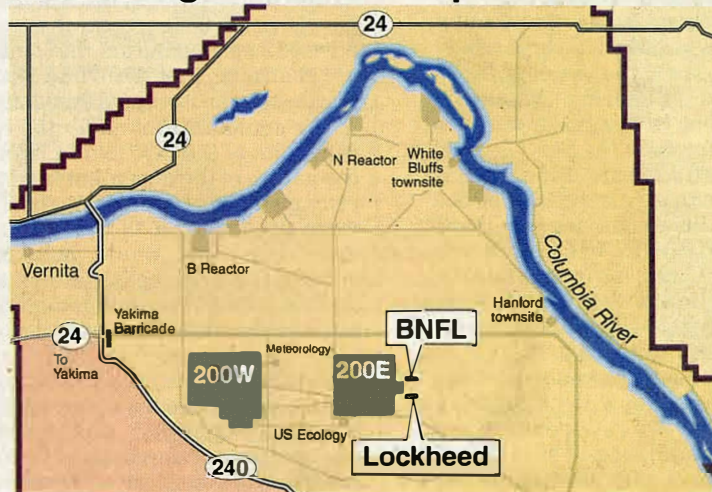
Liquid glass filled with trapped

If everyone sticks it out for 30 years.

In January, the Department of Energy is to accept the plans for what will be Hanford's most difficult and expensive single project.

In May, department officials will make the key decisions on

Hanford glassification plant sites





Herald/Paul T. Erickson

Paige Knight of Portland, lower right, leads a group of about 20 protesters in an anti-Fast Flux Test Facility chant Saturday outside the

Federal Building in Richland. The protesters were countered with a rally across the street by more than 300 FFTF supporters.

Protesters square off over FFTF

By JASON HAGEY

Herald staff writer

A few hundred friends of Hanford's Fast Flux Test Facility rallied Saturday morning in Richland to shout down a protest organized by activists opposing the restart of the experimental nuclear reactor.

The crowd of roughly 300 Hanford engineers, labor union members, Tri-City political leaders and their families was bigger and louder than the 20 protesters who carried signs and chanted anti-nuclear messages.

The two groups squared off across Jadwin Avenue in front of the Federal Building.

At times, pro-FFTF demonstrators completely drowned out the protesters, yelling "FFTF" in unison during speeches from activists who oppose restarting the plant to make tritium for atomic bombs and medical isotopes for cancer treatment.

"I can't hear you," one supporter yelled at the protesters from across the street. "You're going to have to speak louder."

"I hope your spouse never gets cancer," someone else yelled.

But both sides said it was worthwhile to carry pickets and chant slogans in the crisp December air.

"The debate about FFTF has to be out in the open," said Paige Knight of Hanford Watch, a Portland-based group that opposes restarting FFTF.

"It's important to state our position and let people know there is opposition."

One person they especially want to make aware of the opposition is the man who will make the final judgment on whether to

"The debate about FFTF has to be out in the open. It's important to state our position and let people know there is opposition."

— Paige Knight,
Hanford Watch

restart the mothballed nuclear reactor, Energy Secretary Federico Peña.

Knight and Lynn Stembridge, executive director of Spokane-based Hanford Education Action League, led the protesters in a half-block march from the Federal Building to the Richland Post Office, where they mailed a package of anti-FFTF petitions to Peña.

"Our goal is to make sure (Peña) understands there is controversy," Stembridge said.

With the amount of money big companies are using to finance the pro-FFTF lobby, it's possible the other side of the issue will be ignored, she said.

Opponents say restarting FFTF will rob money from the cleanup mission at Hanford.

Furthermore, they say the United States doesn't need any more tritium, a radioactive gas that permits nuclear bombs to work as designed.

But supporters of FFTF, who quickly organized Saturday's rally after they learned of the anti-FFTF protest, emphasize the medical benefits they say will result from restarting the reactor.

One picket sign carried the message "The answer to cancer: FFTF."

Dean Merrick, 63, of Kennewick, said the medical isotopes that could be produced at FFTF would have helped treat the cancer that killed his mother, his wife and his boss.

Merrick, who was forced to retire from construction work because of surgery for brain cancer, said safety concerns about the reactor are unfounded because of advances in technology.

"I've worked at all the sites out there" at Hanford, Merrick said. "I have absolutely no fear of working with isotopes. ... The people who complain about isotopes have stopped doing their homework in 1945."

Jerry Woodcock, chairman of the Eastern Washington section of the American Nuclear Society, said the pro-FFTF response was important.

"This is a battle of ideas and a battle for the hearts and minds of people," he said.

"It has very little to do with jobs in the Tri-Cities and a lot to do with saving the lives of people around the world."

But it wasn't clear either side made much headway Saturday in persuading people to change their thinking.

Mark Bowman, a Hanford worker who came because he was curious about what the protesters had to say, didn't stay long.

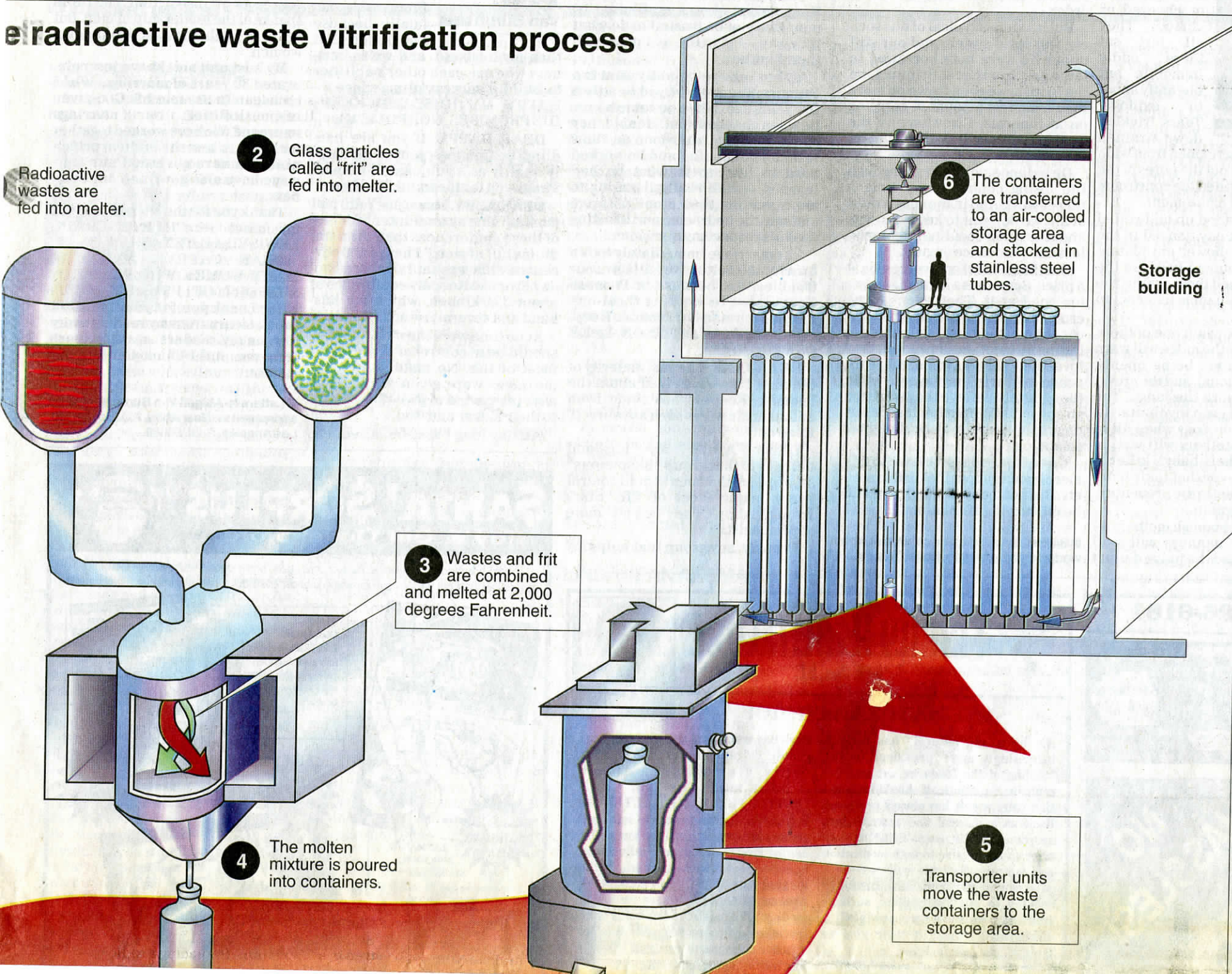
"If they're just going to sit and yell at each other across the street," he said, "I'm going to leave and go Christmas shopping."

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We had rocky record at other plants

the radioactive waste vitrification process



Ohio work scrutinized by Hanford

By JOHN STANG

Herald staff writer

In 1994, the Department of Energy figured it would cost about \$100 million to convert the radioactive waste at Fernald, Ohio into glass.

But glassification got off to a rocky start at DOE's former uranium supply foundry near Cincinnati. Today, the estimate is vastly more expensive and uncertain, ranging anywhere from \$400 million to \$600 million.

The program has been plagued with other problems besides the skyrocketing costs, including poor coordination of construction work at a pilot glassification plant and a melter breakdown during testing.

There's even been second thoughts about whether glassification is the way to go.

Hanford officials are watching developments in Ohio with more than idle interest. Fernald's program has close ties to Hanford.

For one thing, Hanford and Fernald share the same site manager — Fluor Daniel.

And GTS Duratek, the company that designed Fernald's melter, also is designing the melter that a four-company team led by British Nuclear Fuels plans to install in its glassification plant at Hanford.

While Fluor is running glassification work at Fernald, its role in glassifying efforts at Hanford is as the construction and engineering subcontractor on an 11-company team led by Lockheed Martin.

The Fluor company working on the glassification plant is a separate sister of the Fluor that manages Hanford.

Despite similarities, Fernald and Hanford face vastly different waste problems. The differences don't provide much cause for comfort, however.

At 1.6 square miles, Fernald is a tiny fraction of Hanford's 560 square miles. And the waste problem in Ohio is far simpler than the challenges posed by the complex mix of chemicals and radioactive liquids at Hanford.

Instead of 177 separate million-gallon underground tanks like Hanford, Fernald has three above-ground "silos," each a bit smaller than the size of a Hanford tank.

Companies want a piece of Hanford project

By JOHN STANG

Herald staff writer

Just about every company with expertise in glassifying wastes has shown up on Hanford's doorstep in the last few years.

If these firms aren't part of the four-company team led by British Nuclear Fuels, then it's almost certain to be on the 11-company team led by Lockheed Martin Advanced Environmental Services.

The two teams include just about the entire universe of companies with knowledge about turning radioactive wastes into glass.

But the relationships run even tighter than that. Five members of the Lockheed team also are affiliated somehow with the team Fluor Daniel Hanford is using to manage Hanford. That includes Lockheed Martin Hanford Co., which runs the tank farms for the Department of Energy.

It means Lockheed's Hanford subsidiary will be helping ready radioactive wastes for its sister firm — Lockheed Martin Advanced Environmental Services—as well as the BNFL effort.

However, Maurice Bullock, president of the BNFL team, sees no problem with the arrangement. Fluor Daniel Hanford, Lockheed Martin Hanford and the others will have to provide equal amounts of wastes in the same conditions for both ventures, he said.

And Bullock said he trusts the core Hanford companies to deliver what is needed to BNFL.

Here is how the two teams break down:

BNFL's team

► BNFL will coordinate the team's efforts and provide much of the glassification expertise. It will run the Hanford operation after construction.

► Bechtel National Inc. will coordinate construction and provide BNFL with an expert in understanding and dealing with American environmen-

tal and procurement laws. This is a sister company of Bechtel Hanford Inc., which manages environmental restoration at Hanford.

► Science Applications International

Corp. is the team's expert on nuclear licensing and permitting. It will also do some safety analyses.

► GTS Duratek is the glassmaking and melter expert.



Courtesy of BNFL

Canisters of glassified radioactive wastes are stacked on top of each other in long tubes extending under each circle on the floor of this chamber at the British Nuclear Fuels complex at Sellafield, England.

Lockheed's team

► Lockheed Martin Advanced Environmental Services coordinates the team and will run the operation after construction. This is a sister of Lockheed Martin Hanford Co.

► Fluor Daniel Inc. will handle construction. This is a sister of Fluor Daniel Hanford.

► Numatec is the expert in glassifying high-level wastes. It is a subsidiary of French-based Cogema, which runs the world's long-running vitrification operation. This will funnel Cogema's expertise and money into Lockheed's team. Numatec also is part of the Fluor Daniel Hanford team.

Numatec also is a subsidiary of French-based SGN, a prominent glass-making corporation. SGN and Cogema are separate corporations, but joined forces to become parents of Numatec.

► Envitco replaced Molten Metal Technology as the melter expert several months ago. Envitco is partly owned by Cogema.

► AEA Technology will handle treating the wastes before it reach the melter.

► Nukem Nuclear Technologies will also tackle treating wastes prior to the melter stage.

► Molten Metal will research ways to recycle sodium extracted from low-level wastes in the initial treatment stages.

► OHM Remediation Services will tackle wastes produced by glassification.

► Duke Engineering & Services will handle safety, health and environmental matters. It is related to DE&S Hanford.

► Los Alamos Technical Associates will also handle safety, health and environmental matters.

► B&W Protec will provide security. This is the spinoff firm created with Hanford's security officers by B&W Hanford Co.

12-8-97

Knollmeyer takes promotion at Hanford

Pete Knollmeyer was recently appointed the Department of Energy's assistant manager for facility transition at Hanford. Knollmeyer has held that post in an "acting" capacity since September 1996.

Knollmeyer was in the Navy from 1982 to 1991, serving on submarines.

In 1991, he left the Navy to take a senior engineering position at B&W Nuclear Technologies in Lynchburg, Va. He has received one patent in the nuclear field and has a second patent pending.

He became DOE's deputy assistant manager for waste management at Hanford in 1995, moving to being acting assistant manager for facility transition in 1996.

12-10-97

Ex-Hanford manager now vice president of BNFL Inc.

By the Herald staff

Mike Lawrence, former Hanford manager for the Department of Energy, recently was named executive vice president and chief operating officer of BNFL Inc.

Lawrence will succeed Thomas Crimmins Jr., who will become BNFL's president and chief executive officer, succeeding Rolland Langley on Jan. 1.

Langley is stepping down after seven years at the helm of BNFL which is the U.S. subsidiary of England-based British Nuclear Fuels.

Langley will stay with BNFL as a

member of the board of directors.

Lawrence was DOE's Hanford manager from 1984 to 1990.

After leaving Hanford, Lawrence was director of waste operations for Chemical Waste Management Inc. from 1990 to 1991. He was counselor for nuclear policy for the U.S. State Department's mission to the United Nations from 1991 to 1994.

He was president of Pajarito Scientific Corp. — a BNFL subsidiary — from 1994 to 1997, and joined BNFL in October.

BNFL handles several North American projects from its Fairfax, Va., headquarters.

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TRI-CITY HERALD

WEDNESDAY, DECEMBER 10, 1997

Senate subcommittee chairman to visit Hanford

By LES BLUMENTHAL

Herald Washington, D.C., bureau

New Mexico senator has say in money provided to Department of Energy

WASHINGTON — Republican Sen. Pete Domenici of New Mexico, chairman of the Senate appropriations subcommittee that provides the bulk of the funding to the Department of Energy, will visit Hanford Thursday.

While Domenici's office will say little about the senator's exact schedule, he is expected to visit the Pacific Northwest National Laboratory, the Fast Flux Test Facility, and the tank farms and the old reactors at Hanford.

Sen. Slade Gorton, R-Wash., talked with Domenici about his Hanford visit and urged him to tour FFTF, said Melissa Dollaghan, a Gorton spokeswoman.

"It is extremely important that he (Domenici) tour a facility under consideration for tritium production," Dollaghan said.

The Energy Department's Los Alamos Laboratory, in Domenici's home state, has been doing much of the research on using an accelerator to produce tritium. If the department decides to proceed with an accelerator,

it would be built at DOE's Savannah River, S.C., complex.

The department is studying the possibility of using FFTF to produce tritium, a radioactive gas used to boost the power of nuclear weapons, until an accelerator is completed or a commercial light-water reactor is converted.

During his western swing this week, Domenici also will visit Stanford University, Lawrence Livermore National Laboratory and Sandia National Laboratory-Livermore.

"Domenici, who has initiated what he hopes will be a national debate on upgrading decades-old American nuclear policies, said the U.S. should enter into the next millennium with new policies that recognize how advances in nuclear technologies can be utilized to improve national security, energy production and environmental protection," according to a statement released by the senator's office.

In addition to being chairman of the Senate Appropriations Committee's energy and

water development subcommittee, Domenici is the No. 2. Republican on the Senate Energy and Natural Resources Committee and head of the Senate Budget Committee.

Meanwhile in the House, Domenici's counterpart as chairman of the House energy and water development appropriations subcommittee, Rep. Joe McDade, R-Penn., has announced he will not seek re-election next year. Next in line for that chairmanship is Rep. Harold Rogers, R-Ky.

The ranking Democrat on the House subcommittee, Rep. Vic Fazio of California, also has said he will not seek re-election. Next in line on the Democratic side is Rep. Peter Visclosky of Indiana.

12-11-97

DOE balks at spending \$12 million screening downwinders

By The Associated Press
and Herald staff

The U.S. Department of Energy has balked at spending \$12 million to screen the health of people who lived downwind of the Hanford nuclear reservation and may have been exposed to radiation.

While \$823,000 was allocated to figure out how to set up a screening program in 1998, DOE and the federal Agency for Toxic Substances and Disease Registry (ATSDR) are still discussing how to drum up the \$109 million needed for the program's lifetime. That would have included \$12 million in fiscal 1998.

Federal health officials in charge of the stalled program say it could save several lives each year.

Judith Jurji, who heads the Hanford Downwinders Coalition and suffers from thyroid disease, which often is linked to radiation exposure, is bitter about the struggle for money.

"We're kind of demoralized at this point," Jurji said. "Actually, it feels like we're dead in the water."

The medical monitoring program, to be coordinated by the federal ATSDR, would be the first concrete assistance offered to downwinders after years of scientific studies and legal battles.

The monitoring program would alert former Hanford-area residents who have scattered around the country over the past 50 years to their potential health risks.

Agency studies estimate such monitoring

would uncover 38 new cases of thyroid cancer each year, potentially saving six to eight lives.

About 14,000 people would be eligible. They were children in Eastern Washington and Eastern Oregon during the 1940s and early 1950s when large doses of radiation were released from Hanford during production of plutonium for nuclear weapons.

The program called for them to be screened periodically for thyroid problems, including cancer, and referred to doctors if necessary. The program would not provide medical care.

The program is expected to cost \$109 million over seven to nine years, said George Sanders, the DOE official in charge of the matter at Hanford.

In the past, DOE's Washington, D.C., head-

quarters paid for downwinder medical matters out of its budget.

But in February, DOE headquarters said the regional office in Richland must pay for the monitoring out of its own budget.

However, John Wagoner, DOE's Hanford manager, said his office didn't have the money to begin medical monitoring in 1998. He said the request would rob money for already delayed environmental cleanup efforts at the nuclear reservation.

Downwinders and federal health officials claim health needs are being unfairly pitted against environmental concerns.

"This is a drop in the bucket. DOE spends more on stationery than we're asking for," said Jim Carpenter, public health adviser for ATSDR.

Fluor denies it'll sell Hanford pact

Rumors fly as California firm's profit margin turns disappointing

By JOHN STANG
Herald staff writer

Rumors are circulating that Fluor Corp. is considering selling its contract to manage Hanford — rumors Fluor denies.

The rumors were recently reported by The Wall Street Journal and Engineering News Record — both citing unnamed sources.

"There's a lot of speculation on that. None of (speculation in the articles) is quoted information from the company. ... We're committed to this contract and to the community that we are part of," Fluor corporate spokesman Rick Maslin said Monday.

Part of the speculation comes from competitor Westinghouse Electric Co. beginning to divest itself of its government and environmental work, Maslin said.

And much of this speculation also comes from Fluor Corp. reorganiz-

ing and possibly selling some assets in an attempt to slash overhead and improve the value of its stock, which has taken a beating in the past year.

Fluor Corp. of Irvine, Calif., is one of the world's largest engineering and construction firms. Under Les McCraw, the corporation's soon-to-retire chairman and chief executive officer, the company drastically expanded from 1993 to 1996.

That expansion included Fluor Daniel Hanford winning a five-year \$4.88 billion contract in 1996 to manage Hanford for the Department of Energy.

But Fluor has not been able to keep up with its rapid growth, said Ron Peterson, president of Fluor Daniel's Government Services Operating Co. in a March interview with the Herald.

Fluor Corp.'s profit margins apparently have suffered.

The Nov. 18 Wall Street Journal said Fluor promised Wall Street

analysts a profit margin of 3 percent, but appears on track to deliver 2 percent or less.

The Dec. 8 Engineering News Record — a weekly magazine often dubbed "ENR" that focuses on construction engineering — said Fluor's profit margins are usually 4 percent. But its profit margin for its DOE contracts at Hanford and Fernald could dip to 1 percent.

Maslin declined Monday to discuss profit margin figures, other than saying: "The margins are not where we would like them to be. We'd like for them to improve."

Fluor's stock price has dropped from roughly \$75 last February to \$38 1/4 Monday.

The speculation Fluor might sell its Hanford contract has come from several sources:

■ ENR cited "competitors" saying Fluor "is sending signals that it is shopping its DOE contracts," particularly those for Hanford and Fer-

nald. The article quoted Peterson saying the DOE projects are among Fluor's core business strengths that it wants to hang on to. But ENR also quoted Peterson adding "everything is for sale at the right price."

■ The Wall Street Journal cited "people familiar with the company" thinking Fluor could sell several projects including "environmental cleanup, as well as contracts for work at giant government nuclear facilities."

However, the article also quoted a Fluor official saying contracts in areas targeted for cutbacks will be honored.

Also Maslin noted that Fluor is about ready to begin a two-year extension on a previously five-year contract to manage Fernald.

Meanwhile, Fluor Corp. announced Monday it is beginning a 120-day study whether to keep or sell American Equipment Co., which leases giant cranes and other

construction equipment. Fluor also said it is looking at consolidating "several operating units to ... reduce overhead."

ENR also has reported rumors that Lockheed Martin is "eager to dump its (DOE) contracts" — rumors denied by Lockheed.

Linc Hall, president of Lockheed Martin Hanford Co., said, "There are no plans by any ... Lockheed Martin companies in the DOE business to divest themselves of that business."

Hall said the ENR rumors could have come from some brainstorming discussions at DOE's troubled "Pit 9" project at Idaho Falls, where a Lockheed company ended up with major cost overruns.

Those talks included possibly bringing in another company to tackle part of the Pit 9 work, but Hall said that idea never made it to an actual proposal.

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Hanford to fight fine for waste analysis lab

By JOHN STANG
Herald staff writer

For the second time, Hanford officials have decided to contest a \$90,000 fine levied against the site's main waste analysis laboratory.

The Department of Energy and two contractors filed their appeal with the Washington State Pollution Control Hearings Board on Friday, said DOE attorney Patrick Willison.

The appeal addresses a Washington Department of Ecology fine against central Hanford's 222-S lab, which Waste Management Federal Services of Hanford oper-

ates for Fluor Daniel Hanford.

A hearing on the appeal likely is several months away.

The state charges the lab did not fix deficiencies found in 1996 by the time the Ecology Department inspected the lab again in February 1997.

Three accidents drew state attention to the lab in 1996, all before Fluor and Waste Management took over Oct. 1, 1996. A worker was burned in one accident.

The lab overhauled its training and procedures after Fluor took over Hanford. But the state noted six safety violations relating to storage, labeling, control and verification of

wastes when it inspected the lab again in February 1997. That led to the \$90,000 fine.

In May, DOE, Fluor and Waste Management petitioned the Ecology Department to re-evaluate the fine, partly because training at the lab still was under way during the review.

But the state said in November that no new information had surfaced to justify reducing the fine. It also issued a new, more detailed notice of violations for DOE and the contractors to study.

The second notice is what Hanford is appealing. DOE and the contractors argue the state addressed inter-

nal procedures and not state regulations. They also argue state inspectors did not get all the appropriate information to make valid judgments, Willison said.

However, Mike Wilson, the Ecology Department's nuclear programs manager, said the fine had "nothing to do with internal procedures. They failed to meet the legal requirements."

The lab also was slow to fix the problems noted in 1996, which helped lead to the fine, he said.

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Funding pinches Hanford priorities

By LES BLUMENTHAL
Herald Washington, D.C., bureau

WASHINGTON — Until recently, the Department of Energy and its contractors at Hanford were on a collision course with the Defense Nuclear Facilities Safety Board over cleaning up and stabilizing plutonium at a top-priority site at Hanford.

Officials say they are now confident they have closed what was once more than a \$15 million bud-

get gap for work during the current fiscal year at the Plutonium Finishing Plant.

But the plutonium funding scare represents a clear sign of larger budget problems at Hanford, which are forcing managers to juggle priorities on some of their most critical projects and making it harder to meet cleanup commitments and deadlines.

■ FINE: Hanford appeals \$90,000 fine again. Story, Page A14.

"It's getting tougher and tougher," said Peter Knollmeyer, the department's assistant manager for facility transition at Hanford.

In recent years, Congress essentially has capped cleanup funding for Hanford at just above \$1 billion annually. At the same time, cost overruns and delays have driven up the cost of some projects.

The most crippling blow came in early November when it was announced the cost to move and neutralize spent nuclear fuel in Hanford's K Basins had grown by

29 percent, or roughly \$238 million. That represents almost one-fourth of the reservation's total cleanup budget.

"We are being forced to decide what compliance has priority," Knollmeyer said.

He said \$10 million to \$15 million was freed up to cover some of the shortfalls by renegotiating benefits for employees. Other savings have been found through creating what

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Hanford watchdog groups say tanks leak waste

By JOHN STANG

Herald staff writer

The radioactive wastes in Hanford's Tank SX-104 dipped two inches a week ago.

Two Hanford watchdog groups say that's because it's leaking.

The Department of Energy says that's because the barometric pressure increased.

And the Washington Department of Ecology accepts the barometric pressure theory, but is keeping an eye on the situation.

The two-inch drop was recorded Dec. 10 — and rechecked Thursday. Then the waste level crept back up to normal levels by Tuesday. Lockheed Martin Hanford Co. reported the fluctuation to DOE Monday.

The Government Accountability Project and Heart of America Northwest criticized DOE on Tuesday for allowing a tank to leak and for delaying several days to make the

■ FINE: Hanford firms appeal state fine for lab problems. Page A14.

suspected leak public.

Tank SX-104 is one Hanford's 177 underground radioactive waste tanks, and is one of 67 on the "suspected leaker" list.

In 1988, it leaked 6,000 gallons. Then DOE pumped out 113,000 gallons, halting when signs of leaking disappeared. That left about 200,000 gallons in the tank.

DOE officials were not sure why the 200,000 gallons were left in 1998 but speculated tank space might not have been available to receive the remaining waste as it would have been pumped.

Meanwhile, liquid wastes in 63 of the 67 suspected leaking tanks have been pumped out to safer double-shell tanks — leaving the four remaining suspected leakers to be pumped by the end of September next year.

Hanford began pumping out Tank SX-104

last September, but a line clogged in three places after 500 gallons were pumped. The last clog was cleared Monday.

Meanwhile, the surface of the liquid wastes inside Tank SX-104 normally fluctuates about three inches. But on Dec. 10, the level was measured at two inches below its normal range.

A rule of thumb is that one vertical inch in a tank equals about 1,000 gallons, DOE officials said.

GAP and Heart of America issued a press release Tuesday charging that:

■ 4,000 gallons had leaked from the tank since Dec. 3, the time of the last normal reading.

■ Hanford recently cut tank-pumping funds, boosting risks of wastes leaking into the ground.

■ DOE and Lockheed did not immediately — meaning by Thursday — notify the public of

the suspected leak as required by a 1994 settlement of a tank-related lawsuit the two groups pursued against DOE.

Jackson Kinzer, DOE's assistant manager for the tank farms, said heavy atmospheric pressures occurred Dec. 10 and Thursday, entering the tank through its vents to increase the internal barometric pressures to push the liquids down.

Mike Wilson, the Ecology Department's nuclear program manager said: "Based on the information we've seen, that seems to bear out." He added that the state will monitor the tank to see if the theory holds up.

But Tom Carpenter, an attorney for GAP, said, "I don't buy that." The two-inch drop was too great not to be a leak, he said.

Meanwhile, Kinzer said budget crunches forced DOE to shift some tank pumping money to build infrastructure to move and prepare wastes to eventually convert into glass

— Hanford's ultimate goal for the wastes. The four suspected leaking tanks are scheduled to be pumped in fiscal 1998, he said.

Kinzer and Wilson said their agencies were told of the abnormal fluctuation Monday. Kinzer said Lockheed needed to first study and verify what happened.

Kinzer criticized Heart of America's and GAP's press release. "It was unprofessional for them to put it out. They did not have the data verified," he said.

However, Carpenter contended it is better to publicly voice suspicions about leaks as they materialize, criticizing the five-day delay in notifying DOE. "They need to tell the public and DOE a lot sooner," Carpenter said.

Wilson believed the notification issue is moot — as long as barometric pressure is the cause for the fluctuation.

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K Basin cleanup costlier than expected

By JOHN STANG

Herald staff writer

Cleaning up Hanford's K Basins is now expected to cost \$274 million more than expected — a 33 percent jump from the project's 1995 predictions.

The Department of Energy formally approved the cost increase earlier this week, after studying recommendations submitted by Fluor Daniel Hanford and DE&S Hanford.

That should lock Fluor and DE&S into a tight, but achievable schedule to remove

DOE gives formal approval to \$1.08 billion plan

2,300 tons of spent nuclear fuel from the K Basins to a storage site in central Hanford, said Charles Hansen, DOE's assistant manager for waste management.

Through most of 1997, Fluor and DE&S have been studying and restudying the K Basins' problems — and proposed cost increases and delays have surfaced throughout the year.

On Wednesday, Hansen said DOE has approved recommendations that will lead to:

■ Confirming the project's extension of 19 months to be completed in 2003 instead of 2001. This was expected.

■ A \$274 million cost increase accompanying that delay, bumping the overall price tag from \$814 million to \$1.08 billion through 2003. In November the cost increase was estimated to be \$238 million, but it since has grown.

■ Adding extra tasks, including cleaning leftover contaminated sludge from the basins, which was not in the original plan.

■ No changes in DOE's fiscal 1998 budget and its proposed fiscal 1999 budget, since the long-expected K Basins increases already were factored into those calculations. The first time the increases will chew into Hanford's predicted tight, flat budgets will be in fiscal 2000.

The K Basins are two huge indoor water-filled pools holding spent nuclear fuel in usually corroded containers a few hundreds feet from the Columbia River. One basin has leaked twice in the past.

The roots of the cost increase date back to 1994 when DOE and then-lead contractor Westinghouse Hanford Co. believed they could put the K Basins project on a faster and cheaper track. Their revisions dropped an original \$1.1 billion budget estimate to \$750 million in 1994, which got revised to \$814 million in 1995.

But that faster, cheaper schedule assumed overly optimistic best-case scenarios on design work, safety issues and other factors, Hansen said.

Fluor and DE&S, which is Fluor's sub-

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Hastings calls for more notice of layoffs

By JOHN STANG

Herald staff writer

A two-week warning prior to a Hanford worker being laid off is "unacceptable," U.S. Rep. Doc Hastings, R-Wash., wrote to Fluor Daniel Hanford on Wednesday.

Hastings' letter came after it became known that 60 days notice would not be required on Fluor's 1998 layoffs.

Fluor and the Department of Energy are working on the Fluor team's work force restructuring plan, which predicts fewer than 500 layoffs by Sept. 30, 1998.

How many fewer still is undetermined.

Federal law requires 60-day notices on mass layoffs by government contractors in certain situations — including if the layoffs number at least 500 employees or one-third of the total work force.

The "fewer than 500" expectation in 1998 does not meet that criteria, which brings in the corporate notification period of at least two weeks.

Through layoffs and attrition, Hanford has eliminated about 6,000 jobs since 1994 — in segments large enough to require the 60-day notifications.

FFTF backers ask Hastings for impact study

By JOHN STANG

Herald staff writer

Fast Flux Test Facility supporters have given their congressman a petition with 632 signatures calling for an environmental impact study of reviving the dormant reactor.

U.S. Rep. Doc Hastings, R-Wash., told signature gatherers in his Pasco office Wednesday that he would pass the petition on to Energy Secretary Federico Peña.

Peña is scheduled to decide sometime in 1998 whether to order the environmental impact study, which could greatly influence whether the reactor would be resurrected. No deadline is set for his decision.

If resurrected, FFTF likely would have an inter-

im or backup mission of producing tritium to boost the explosive power of nuclear bombs while gradually phasing into a longer-term mission to make medical isotopes.

Factors will include a cost comparison of using FFTF instead of converting a commercial reactor or building an accelerator. Other issues to be studied include national tritium needs and how long it will take to get each option on line.

Reviving FFTF has sparked passionate arguments.

Supporters focus on the isotopes mission and potential jobs. Opponents focus on the tritium mission and potential distraction from Hanford cleanup.

Supporters plan to keep collecting signatures through Jan. 2. People interested in the petition

can call Derek Jones of Friends of the FFTF at 582-5077.

The people presenting the petitions to Hastings were Jones; Rick Berglund, president of the Central Washington Building Trades Council; Jerry Woodcock, Eastern Washington Section of the American Nuclear Society; Dave Higby, president-elect of the Columbia Chapter of the Health Physics Society, and West Richland City Councilman Ken Dobbin.

Hastings noted the FFTF has survived years of Department of Energy deliberations on permanently shutting it down.

"This has hung on so long because of the support of people like you," Hastings said.

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Fluor Daniel expects to be at Hanford 9 more years

By JOHN STANG

Herald staff writer

Fluor Daniel hopes to be Hanford's lead contractor through at least 2006, a top company official said Wednesday.

That's the duration of its five-year contract that began in 1996, plus five years worth of renewal options.

"We fully intend to be here nine more years and beyond," said Ron Peterson, president of Fluor Corp.'s government, environment and telecommunications group — to which Fluor Daniel Hanford belongs.

However, since early this year, parent corporation Fluor Corp. has been consolidating, reorganizing and considering divesting itself of several subsidiaries.

"The approach (last spring) was that there are no sacred cows in the company," Peterson said.

The process fueled speculation on what Fluor would divest and contributed to Fluor's stock price drop from about \$75 per share to the low 40s last spring.



Peterson

On Wednesday, the price was 39%.

Speculation included the fact Fluor might attempt to rid itself of its government contracts.

The massive reorganization stems from Fluor Corp. reversing its extensive growth and diversification of the past several years — an expansion that had sped beyond Fluor's ability to manage.

Most of the reorganizing is taking place outside of Fluor's government, environment and telecommunications group.

And Peterson said he does not expect many major change to occur in his group, including the Hanford contract.

He said his group includes many of Fluor's longtime core businesses that it wants to stick with.

However, the corporate revamping and the accompanying Wall Street speculation is expected to continue for a while, he said.

Just how long it will go on likely will hinge on a just-beginning search for a replacement for board chairman and chief executive officer Les McCraw, who is retiring Jan. 1 because of health problems.

The search firm hired by Fluor has 120 days to find a replacement.

If the new CEO comes from within Fluor, Peterson expects no major changes because that person already would be in tune with the current corporate overhaul.

If the replacement comes from outside of

Fluor, Peterson does not know what to expect.

Peterson explained Fluor Corp.'s reorganization is trying to strike a better balance between the low profit margins that a taxpayer-funded government favors in awarding contracts and stockholders' demands for higher profit margins.

Most of Fluor Corp.'s various government contract profit margins range from 2 percent to 4 percent, with anything above that making corporate officials extremely happy.

The Hanford contract has the potential to fit into that category.

Fluor's \$4.88 billion, 5-year Hanford contract is its first in which its profits are based entirely on performance.

If Fluor posts a perfect record in its first year at Hanford, it could earn a \$54 million performance fee, which Peterson noted is about 5 percent of a roughly \$1 billion yearly contract.

"It's difficult to say (what the margin will be) with this being the first year. We have no history (at Hanford), and there's no history on this type of contract," Peterson said.

The Department of Energy is expected to finish grading Fluor's performance in early 1998.

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Fluor to evaluate contracts of 5 main subcontractors

By the Herald staff

Fluor Daniel Hanford will not automatically renew contracts with its five main subcontractors.

Each of those five is more than halfway through two-year contracts under Fluor Daniel's umbrella to manage Hanford.

Between three and nine months from now, Fluor will evaluate each of the five to see if any of those contracts should be put up for bids again, said Ron Peterson, president of Fluor Corp.'s government, environment and telecommunications group. Fluor Daniel Hanford belongs to that group.

Peterson hopes those decisions will be made sooner, rather than later. The decision on the five companies will not be made simultaneously, but rather one at a time, he said.

Fluor Daniel Hanford is the leader and coordinator for five companies handling

five different aspects of Hanford's cleanup.

These are DE&S Hanford Co., which handled the spent nuclear fuel removal project; B&W Hanford Co., which maintains and cleans up several facilities; Waste Management Federal Services of Hanford, which handles a variety of waste matters; Lockheed Martin Hanford Co., which is in charge of the tank farms; and Numatec Hanford Co., which provides engineering support for the rest.

A sixth major subcontractor, DynCorp Tri-Cities Services Inc., is not one of the original subcontractors and occupies a separate corporate branch in the Fluor team's family tree.

Peterson said the upcoming reviews will look at the delays and cost increases in removing the spent nuclear fuel from the K Basins, and at the explosion and plutonium moving moratorium at the Plutonium Finishing Plant.

"We are not happy with the outcomes of those two projects," Peterson said.

Bechtel, Jacob get Oak Ridge contract

By the Herald staff

A joint venture of Bechtel National Inc. and Jacob Engineering Group Inc. was awarded a 5½-year, \$2.5 billion contract to manage the Department of Energy's Oak Ridge facility and two smaller sites, Bechtel announced Thursday.

Joseph Nemec, Bechtel Hanford Inc.'s president from spring 1995 to fall 1996, is president of the joint venture, Bechtel Jacobs Co.

The contract calls for Bechtel Jacobs to manage environmental restoration at DOE facilities at Oak Ridge, Paducah, Ky., and Portsmouth, Ohio.

"It's a source of pride to us that our work here may have contributed to the awarding of the contract," said

Steve Liedle, president to Bechtel Hanford.

Liedle said the Oak Ridge contract would likely "not have a direct ripple effect" Bechtel Hanford, which supervises environmental restoration work.

He noted such work at Oak Ridge and Hanford involves similar problems with contaminated soils, ground water and facilities. And he expects an increased exchange of people and "lessons learned" between sites.

Bechtel Jacobs will replace Lockheed Martin Energy Systems at Oak Ridge on April 1.

Bechtel Jacobs will act as the coordinating contractor in much the same manner as Fluor Daniel does at Hanford. The actual field work will be performed by subcontractors.

Barrels of 'radioactive junk' pose problem at Hanford

By JOHN STANG

Herald staff writer

The barrel rotated as its innards were X-rayed.

Hoses. Tools. Clothes. Cans. Various contaminated odds and ends.

The screen in the control room overlooking the X-ray chamber in a Hanford 200 West Area building showed everything inside the barrel.

What the person watching the screen is looking for is a straight, horizontal line that wiggles as the barrel turns.

That means liquids are inside, and that's a no-no.

If a barrel is solid and tight — and dry inside — it's safe to permanently bury at Hanford or store at a federal site in New Mexico.

But if liquids are inside, they're probably contaminated — and pose environmental and health threats if

the barrel cracks.

Any small containers holding liquids have to be removed from the barrels, and any fluids are drained into cans.

These barrels and boxes hold Hanford's "transuranic" and "mixed low-level" wastes — fancy terms for what is essentially radioactive junk collected from numerous Hanford projects and stashed inside drums.

Disposal of these substances recently has entered a pivotal time at Hanford.

The site is beginning to take care of these wastes faster than they are being produced — chipping away at Hanford's overall volume of tens of thousands of barrels stored in trenches and buildings along the 200 West Area's western edge.

But lurking in the background is a major problem: the barrels are deteriorating, and some are now to the point where their walls are

thinner than desired. They could crack or break when moved.

This deterioration poses a potentially significant health threat to the workers handling those drums if those barrels crack or break, said Dick Wilde, vice president for waste management for Waste Management Federal Services of Hanford, the contractor in charge of this project.

Anywhere else, such vast amounts of transuranic and mixed-level wastes would be a high-profile problem.

But at Hanford, these wastes pale in comparison to much bigger headaches such as leak-prone water basins and underground tanks holding huge amounts of spent nuclear fuel and other high-level radioactive wastes, safety problems at a plutonium storage

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Hanford firms get Canadian contract

By JOHN STANG
Herald staff writer

Two Hanford enterprise companies have been awarded a \$14 million contract to design a medical isotope processing facility in Canada, Hanford officials announced Friday.

It is the biggest contract—\$20 million in Canadian dollars—in the short lives of Fluor Daniel Northwest and SGN Eurisys Services Corp.—or SESC.

SGN, the French corporate parent of SESC, is also a partner in the project.

The work is for Atomic Energy of Canada Ltd., which is building two reactors—MAPLE 1 and MAPLE 2—at Ontario's Chalk River site to replace an old medical isotope reactor.

These reactors use neutrons to bombard "targets" inside some core assemblies. The Fluor-SESC contract is to build a processing plant to take the bombarded targets and extract three medical isotopes.

Fluor Northwest's job is to take the lead role in designing the overall plant, for which it will receive about \$7 million.

SGN, a French nuclear conglomerate, will provide five hot cells—chambers equipped with remote-controlled arms where the isotopes and waste will be extracted. SESC will do some engineering and procurement work for the project. Those two firms will share the rest of the fee.

Joe Davis, president of Fluor Northwest, said Fluor, SGN and SESC probably would not have stood a chance as individual firms—crediting the three's combined expertise for beating out eight other bids.

"This demonstrates we can be competitive in the global marketplace," Davis said.

Fluor Northwest's team has already begun the design work, which will last to July. During this stage, 15 to 30 Fluor and three SESC employees will work on the project.

Construction is to begin in the summer and last about 15 months. During construction, Fluor will have three people on site with visits by others from Richland, said David Shrimpton, Fluor Northwest's manager for the project.

The two MAPLE reactors and the isotope plant are scheduled to begin operating in May 2000.

Before the Chalk River contract, about 60 of Fluor Northwest's 1,060 employees and seven of 120 SESC workers were employed outside of Hanford.

Fluor Northwest and SESC are two of Hanford's six "enterprise" companies that are supposed to wean themselves from Hanford.

Chalk River will produce three isotopes—molybdenum 99, iodine 131 and xenon 133 for diagnostic purposes.

Hanford's dormant Fast Flux Test Facility—which is being considered for revival to eventually produce medical isotopes—has the capability to produce the molybdenum 99 and iodine 131.

However, Tom Tenforde, manager of the Hanford Radioisotopes Program, said the molybdenum is not being seriously considered at the FFTF. Canada is already the prime molybdenum supplier. A reactor at Sandia, N.M. is considered the prime backup for this isotope.

The iodine 131 demand is broad, and Tenforde did not see potential competition between the two projects.

Plans for the FFTF has it targeting isotope markets where there is a demand, he said.

Work at Chalk River will provide experience for Fluor Northwest and SESC if they ever get involved with a revived FFTF, said Bruce Morson, SESC's president.

Fluor Northwest is eyeing other nuclear projects in Canada and has submitted preliminary paperwork on two, Davis said, declining to elaborate. SESC is looking at similar prospects.

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Fluor plans to review enterprise contracts

By JOHN STANG
Herald staff writer

Fluor Daniel Hanford plans to review in February whether it will extend the contracts of Hanford's six enterprise companies.

Fluor expects to map out how it wants to evaluate the six enterprise companies next month and begin those evaluations in early February, said Bill Jacobsen, Fluor's director of contracts.

The company wants to complete the reviews by late February, so it will have ample time to find replacements, if necessary, before the existing two-year contracts expire Sept. 30, Jacobsen said.

Jacobsen and John Wagoner, the Department of Energy's Hanford manager, discussed the enterprise companies Friday in Kennewick with the Benton-Franklin Regional Council.

Fluor's February evaluation will look at whether each company should get a one-year renewal. Fluor has the options for three one-year renewals.

Fluor officials must also decide if any renewals should include a guarantee that all the applicable subcontracting work would come with the contract extension.

When Fluor Daniel's team took over Hanford last year, it spun off about 2,000 Hanford workers into six new "enterprise" companies.

Those companies have been guaranteed significant amounts of Hanford work for their first two years as

they to grow independent of DOE money by finding non-Hanford work.

Eventually the firms must survive in the competitive marketplace.

February's decisions could influence whether these six companies will be guaranteed a lot, some, or no Hanford work beyond next September.

"The first year has been a rough year for the enterprise companies. They've been getting their feet on the ground. ... They had to win some small jobs, and perform those small jobs well, in order to get the bigger jobs," Jacobsen said.

Each company is structured differently and measures its outside growth differently—by dollar values or by non-Hanford jobs created.

Overall, less than 10 percent of the enterprise companies' business currently exists outside of Hanford, Jacobsen said.

The six companies are Fluor Daniel Northwest, Lockheed Martin Services Inc., Waste Management Federal Services Inc. Northwest Operations, B&W Protec, SGN Eurisys Services Corp., and DE&S Northwest.

Jacobsen estimates that Waste Management Northwest, SGN Eurisys and part of Lockheed Martin Services are the farthest along on being competitive outside of Hanford.

He and Wagoner noted that Fluor Northwest and SGN Eurisys have just received a major contract to design a processing plant at a nuclear reactor site in Canada.

Hanford watching aging tank domes

By JOHN STANG
Herald staff writer

Threats to Hanford's ground water from leaky underground radioactive waste tanks and from the remote chance a tank's dome eventually might collapse have increased the urgency for cleaning out the tanks.

That theme emerged when Department of Energy and Washington Department of Ecology officials met with the Tri-City Herald editorial board earlier this week.

Removing wastes from the tanks quickly is the best way to deal with the threat to ground water, they said.

Hanford has 54 million gallons of radioactive wastes in 149 single-shell underground tanks and 28 newer and safer double-shell tanks.

As they age, the tanks become more likely to leak and, with the oldest single-shell now past 50 years old, eventually susceptible to collapse.

The design life for the oldest tanks was not more than 20 years; for the newer double-shell tanks, 50 years.

A 1993 safety report concluded the oldest tanks could last about 40 more years, if no major changes in operations or stresses occur, Don Wodrich, DOE's senior technical

adviser for the tank farms, said in a separate interview.

The possibility of a tank collapsing first was studied in the early 1980s and addressed in the 1993 report.

A tank is essentially a foot-thick concrete shell reinforced with rebar with a quarter-inch steel liner inside. The dome-shaped top is about seven feet underground.

There is a possibility the heavy earth above could push down on a concrete wall so it cracks at the joints with either the dome or floor, which could cause a major break, DOE officials said.

It is a remote possibility, but DOE is keeping an eye on it, said Wodrich and Jackson Kinzer, DOE assistant manager for tank farms.

Suzanne Dahl, the state Ecology department's tank program manager, noted that possibility was mentioned about a year ago in a tank farms environmental study. DOE's calculations appear valid, but the state has not done its own figuring, she said.

The possibility will grow as time passes, Dahl said. She also noted work to clean out the tanks will continue through 2028 under current schedules.

As a precaution, Hanford is watching the ground above. If it sags, DOE would worry. No sagging

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Hanford workers back on job after accident

By the Herald staff

Two Fluor Daniel Hanford workers are back at work after being sprayed with radioactive water.

A pipefitter and a laborer were on a crew working at about 11 a.m. Thursday at Hanford's AY tank farm when the contamination occurred, said Michele Gerber, a Fluor spokeswoman.

The crew was connecting a new pipe to an exist-

ing pipe. To do so, they had to plug the older pipe. "When it came time to remove the temporary plug, water splashed out," Gerber said.

"Both men said they felt liquid spray on their faces," she said.

The liquid in the pipe was water that had condensed from a tank's cooling system, Gerber said.

A health-physics technician said the men received some radioactive exposure to their faces, Gerber said.

They were decontaminated and taken to the Hanford Environmental Health Foundation in north Richland for a whole-body count of radioactive exposure. The test indicated the men had not inhaled or ingested any radioactivity, Gerber said.

The health foundation continues to take samples from the men, Gerber said.

The men were not identified. They returned to work Friday.

Hanford planned for radioactive lake

By The Associated Press and the Herald staff

Documents released electronically for the first time Monday describe a scheme to build a huge artificial lake at Hanford to hold water contaminated by radiation from weapons reactors.

The report was part of 270,000 pages of previously classified documents now on the Internet.

"Most of these documents were available; now, they're readable," said Mike Talbot, a spokesman for the Department of Energy in Richland.

One document, written in 1962, discusses ways to reduce the amount of radiation flowing into the Columbia River from reactors operated to produce plutonium for nuclear warheads.

"It was one of those old ideas that never got very far," Chuck Coutant said by telephone Monday evening. Now a research scientist for the Oakridge (Tenn.) National Laboratory, Coutant worked for many years at Hanford.

Hanford's weapons reactors sucked cooling water from the Columbia then discharged it back into the river. In the

process, the water picked up some radioactive contamination.

"It was at a pretty low level. I worked there in the '60s, and we worked around that water all the time. It was pretty low by anybody's standard, but today, we tend to worry about it more than we did then," Coutant said.

Most of the contamination was short-lived, becoming harmless in a minute. But some, such as zinc 65, lasted longer and was detectable as far away as the mouth of the Columbia.

To reduce radioactivity flowing into the

Columbia, scientists suggested pumping used reactor cooling water into a depression near Gable Mountain, Coutant said.

Under the plan, water would have been allowed to cool and its radioactivity to dissipate before flowing from the lake into the river.

The study of river contamination provided a cost-vs.-benefit analysis of developing an artificial lake to hold contaminated waste water from the nuclear reactors.

It concluded a lake was "unjustified

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Documents on Web

The new DOE documents are on the World Wide Web: www.doe.gov/html/osti/opennet/opennet1.html

Computers at the Hanford Reading Room at the new Consolidated Information Center at Washington State University Tri-Cities are available for searches of the documents, said librarian Terri Traub.

The room generally is open from 10 a.m. to 5 p.m. Monday through Friday, but it will be closed Wednesday and Thursday this week.

The explosion at PFP

Tangle of mistrust

7 months later, workers unhappy with treatment

By JOHN STANG

Herald staff writer

Seven months after nine Hanford workers were exposed to chemical fumes from an explosion, attempts to monitor their health and discover any effects of their exposure remain snared in a tangle of distrust, miscommunication and confusion.

The dust has long settled since the May 14 explosion at the Plutonium Finishing Plant. Much of the mess is cleaned up. But the workers say their lives remain in disarray in spite of a search for answers that stretches from Hanford to Seattle to Texas to California to Pittsburgh.

They believe whatever trust they had in the Hanford system has been betrayed. And they say their co-workers shun and harass them.

Hanford now looks at nuclear thyroid damage data

By The Associated Press

SPOKANE — A federal study to find out whether people exposed to radioactive iodine releases at Hanford have a higher incidence of thyroid disease has entered a new phase, an official said Tuesday.

The data-collection phase of the \$18 million Hanford Thyroid Disease Study by the Fred Hutchinson Cancer Research Center in Seattle ended in September, when the last clinic was held, project manager Peggy Adams Myers said.

Now, data collected from medical exams and telephone question-

naires will be analyzed and sent to the federal Centers for Disease Control and Prevention in Atlanta, Myers said.

A draft report is expected by the end of September, with final conclusions at the end of the year or early 1999.

The results should give the study's 3,566 participants an answer to the question of whether they are at a greater-than-average risk of thyroid disease.

"We will never be able to tell an individual, 'Your disease was or was not caused by Hanford emissions,'" Myers said.

"But we will be able to tell people

either they are, or are not, at a greater risk of thyroid disease. It's a peace-of-mind issue."

Researchers used Washington state birth records to identify about 5,200 people born in seven counties near the federal Hanford reservation between 1940 and 1946.

From 1943 until the mid-1970s, radioactive chemicals and gases were released — accidentally and intentionally — from reactors and plants that made uranium and plutonium for nuclear weapons.

Radioactive iodine-131, a short-lived byproduct of those processes, attacks the thyroid gland.

Children living near Hanford

were exposed to iodine principally through milk from cows that ate contaminated grass, or through leafy vegetables from local gardens.

The majority of the study participants, about 2,350, live in Washington state. The remainder now live in nearly all 50 states and outside the United States.

Participants were asked to fill out questionnaires about their health, to undergo physical examinations by physicians who are thyroid experts and to submit to blood and thyroid ultrasound tests.

Researchers then called the participants' mothers or other close relatives to try to determine their early

eating habits — especially the amounts of local milk and vegetables consumed in childhood, Myers said.

The information then was plugged into a computer model developed by the Hanford Dose Reconstruction Study to come up with individual estimates of iodine doses based on where the participants lived, what they ate and other factors, she said.

"If we find the most thyroid disease in people with higher doses, it is an indication that means the higher the dose, the more disease," she said.

"If we find there is no correlation, then the dose doesn't have anything to do with thyroid disease."

The explosion at PFP

Tangle of mistrust

PFP: Hanford officials admit poor handling

Continued from Page A1

will remain a lengthy and laborious process.

"The lack of trust has made it harder to get things done faster," said Jon Brock, chairman of the Hanford Joint Council for Employee Concerns, which has tried to help.

Intervention by U.S. Sen. Patty Murray and Energy Secretary Federico Peña has done little to speed the process.

Murray intervened with Peña after learning four of the nine had become so impatient that on Oct. 4, they flew to Galveston on their own for medical checks by someone they trusted.

They arrived at the University of Texas Medical Branch about 4½ months after the explosion. But Fluor Daniel Hanford, Hanford's lead contractor for the Department of Energy, soon ordered them to return, saying arrangements and medical protocols for testing had not yet been hammered out.

The four refused and didn't return for several days until a round of clinical checks was done.

In the two months since, agreements have been reached on medical test protocols. And the other five workers have undergone initial checks at Galveston.

The delays mean more tests are needed to check the workers thoroughly, said William Au, the University of Texas researcher in charge of the tests.

Every step to get to this point appears to have been difficult. Workers and officials are guarded when they talk about the health issues. Medical and employee confidentiality rules come into play. And different people have markedly different views of the same events.

Indications are that symptoms and the sought-after medical checks may differ for the nine. They and health officials did not want to discuss individual symptoms in detail, other than to say they still suffer some.

Just after the explosion, the

Exposed worker under fire for talking

Darlene Good was driving home from work last summer when she heard herself called a liar on the radio.

It was on the Mike Siegel syndicated talk radio show.

The topic was the May 14 explosion at the Plutonium Finishing Plant, and a caller said Good and other workers exposed to chemical fumes lied about their health problems.

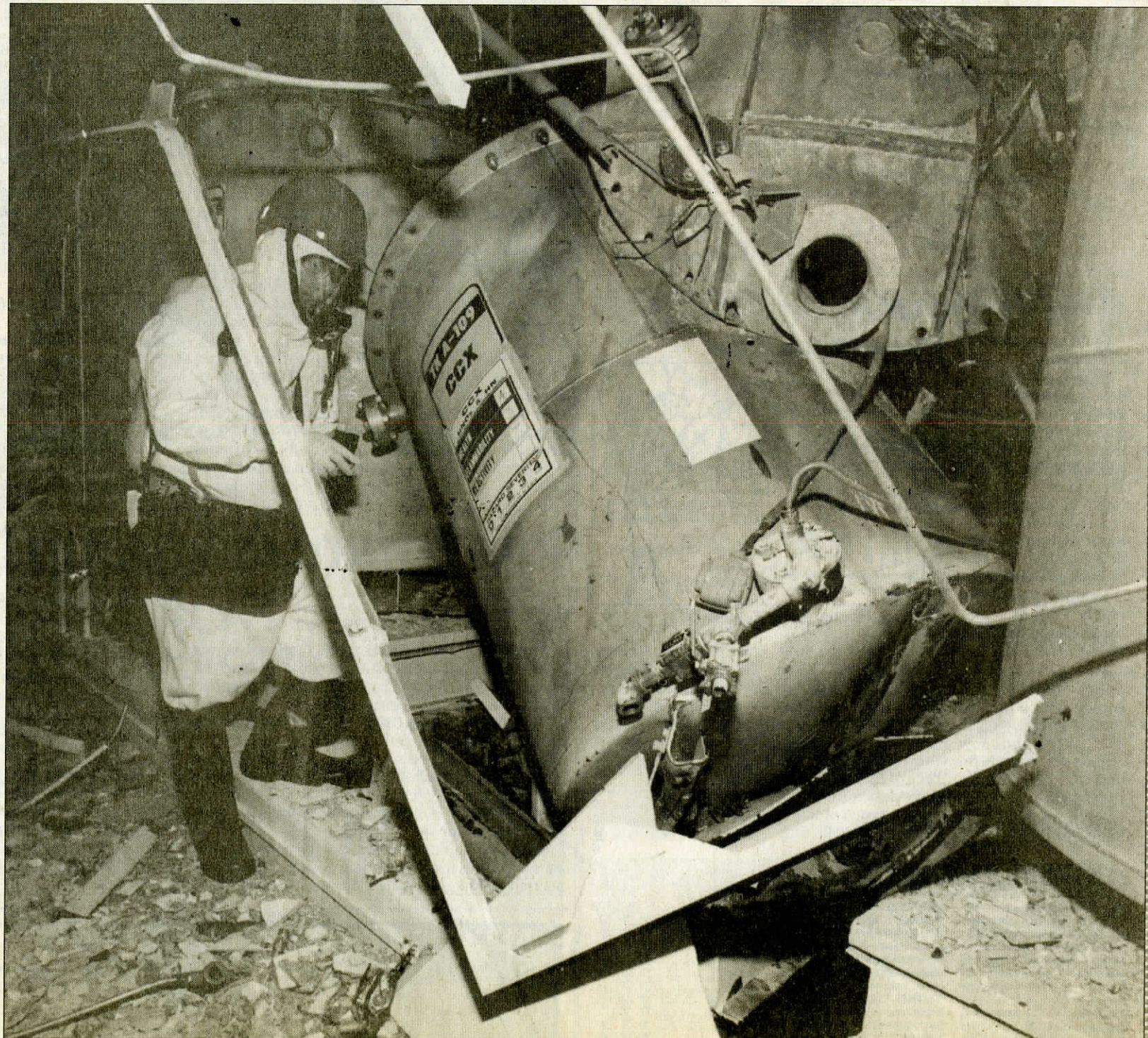
That hurt Good, a radiological control technician for Fluor Daniel Hanford.

"A lot of people look at me as a troublemaker," she said, but added she just wants to be assured no long-term health problems will result because she was exposed to the fumes.

Since the accident, people have stuck transfer request forms on her locker. She has received harassing messages on her voice-mail pager saying she was "dumb" or is stirring up trouble.

And last summer, someone called her home to scream at her about the matter — though the person who picked up the phone was her 13-year-old son.

Good hoped in vain to keep a low profile. Other than saying she sometimes has pains in her throat, she declined to discuss her symptoms except to say some still bother her.



Photos courtesy U.S. Department of Energy

Tank SY-101 waste level steadily rising

By JOHN STANG

Herald staff writer

Hanford's most famous — or infamous — underground radioactive waste tank is again perplexing the site's scientists.

Waste in Tank SY-101 has risen 3½ inches since February.

And while Hanford's scientists have several theories, they don't know why, said Carol Sohn, the Department of Energy's director for safety and characterization at the tank farms.

However, the tank's surface level and the hydrogen venting are within safety and operating limits, Sohn said.

"We don't consider it an immediate safety issue," she said.

DOE and its contractors plan to refer the situation to an expert panel in January to research the cause and find a solution.

"We're just looking ahead to make sure we

don't have a problem," Sohn said.

Tank SY-101 is Hanford's "burping" tank that was fixed by a giant mixer pump being inserted into it in July 1993.

Hanford has 177 underground tanks holding 54 million gallons of radioactive liquids, sludges and crusts.

Tank SY-101 and its 1.12 million gallons are in the 200 East Area. Hydrogen gas would build up at the tank's bottom, then abruptly burp into the air in the upper tank, to be released through its vents. These burps increased the potential for flames or dangerous gases to violently erupt in the tank.

The mixer pump circulates liquid wastes from the tank's upper layer down to the bottom where jet nozzles discharge the fluid 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.

Then in November 1996, Hanford's scientists began noting the waste's surface slowly, but steadily rising from being 398.5 inches deep — averaging about .01 inch a day. But some in-tank cleaning of some measuring instruments knocked that surface level back to 397 inches in February 1997.

But by November 1997, the surface level was marked at 400.5 inches. Meanwhile, DOE and contractors Fluor Daniel Hanford and Lockheed Martin Hanford Co. decided in October that a formal analysis was needed.

The state Department of Ecology and the Defense Nuclear Facilities Safety Board were informed several weeks ago.

Hanford's scientists have several speculative theories on why the surface level is rising but have no hard data to back any of

those theories so far, Sohn said.

Possibilities include gas being trapped in thick liquids just beneath the surface crust, gas being trapped near the pump where liquids and sludges mix or gas being trapped among unmixed solids.

Another possibility is that a foam, instead of gas, is being produced by the pumping.

Meanwhile, Sohn noted the tank is venting the same volumes of hydrogen now as before the surface rising, which indicates massive amounts of gas are not collecting within the tank.

Hanford will try some fix-it measures while hunting for a cause.

Those measures will include operating the pump at different speeds and pointing the nozzles in different directions.

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

Companies to bid for Hanford isotope

By ANNETTE CARY

Herald staff writer

With demand for a medical isotope extracted from nuclear waste booming, Hanford is preparing to commercialize production.

Four or five companies are expected to bid for the work by the Jan. 16 deadline. If the privatization proceeds as planned, it would be the first laboratory-based radiological program at Hanford to be turned over to business.

In 1997, Pacific Northwest National Laboratory in Richland sold five times as much of the yttrium 90 isotope as the year before, bringing in close to \$500,000. Many of the 233 shipments of the isotopes were to Europe, where the Richland laboratory has developed a new customer base. It's being used there for experimental cancer treatments and to ease the pain of arthritis.

"We think we are to a place where a private company can take over and break even," said Tom Tenforde, manager of the Hanford isotope program at PNNL.

The Department of Energy and the Richland laboratory are proposing leasing or selling 40 curies of strontium 90, from which yttrium 90 is extracted into an organic solution.

The strontium 90 isotope naturally decays into yttrium 90. With yttrium's half life of 29 years, that means in 2027 half of the original 40 curies of strontium 90 still will be decaying into yttrium 90. The batch of strontium can be "milked" for more yttrium about once a week.

The DOE and Richland laboratory deal

also could include licensing the company that wins the bid to use the laboratory's patented process to produce yttrium 90 in an unusually pure form. Yttrium 90 produced at Hanford has little or none of the original strontium 90 mixed in when it's injected into a patient.

Bidders have the option to lease DOE laboratory and business space on the Hanford site. They also may form a partnership with PNNL to work on more efficient and less expensive technology to produce yttrium 90.

Bids first will be screened for quality to ensure they meet the Richland laboratory's standards — it produces a product well above Food and Drug Administration purity standards and has never had a shipment rejected by a customer.

Companies that survive the first cut will be evaluated on three criteria. The first 45 percent of the decision will be based on technical merit, including companies' prior experience and expected production

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Radioactive cesium wastes bound for thicker containers

By JOHN STANG

Herald staff writer

B&W Hanford Co. plans to repackage seven highly radioactive cesium capsules on which the new "overpack" containers are too thin.

Meanwhile, B&W is looking into why the error occurred and has increased staffing to improve quality control to prevent a similar occurrence.

The seven capsules were among 16 "overpacked" capsules transported from Hanford's 324 Building near Richland to the Waste Encapsulation and Storage Facility in central Hanford.

The 16 are among about 700 capsules produced from wastes in Hanford tanks and then leased in the late 1970s and early 1980s to irradiation facilities around the nation.

In 1990, one of those capsules leaked, and all were recalled to Hanford by 1995.

Most of them, plus others that never left the site, are stored in the WESF, which contains 1,930 capsules of cesium and strontium.

Meanwhile, 16 of the recalled capsules appeared to be damaged, said Mike Berriochoa, a Fluor Daniel Hanford spokesman. B&W is a subcontractor at Hanford.

Those 16 capsules were sent to the 324 Building, which is a former waste technology engineering lab that has hot cells capable of inserting the capsules into special containers called "overpacks."

The capsules were already in double-layered containers, and the stainless steel overpacks added a third layer. The overpacks are 22 inches long and 3½ inches in diameter with walls ¼-inch thick.

In mid-November, the overpacked cesium capsules were taken from the 300 Area to the WESF. But a record review afterward showed seven of the overpacks had

walls that were too thin, said Berriochoa and Jim Steffen, B&W's deputy director for the 300 Area Stabilization Project.

It appears the thickness problem was identified in the stainless steel, but it was not adequately communicated to the people creating the overpacks, who thought they were using approved material, Berriochoa said.

While most of the capsules are stored in water basins, the seven deficient overpacks are being held in WESF-area hot cells — chambers where radioactive materials can be manipulated safely.

B&W is studying whether the seven capsules should be repackaged at WESF or at the 324 Building, Berriochoa said. The repackaging cost is expected to be \$20,000 or less.

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

Officials with Hanford ties pass on DOE cleanup post

By JOHN STANG

Herald staff writer

Two high-ranking officials with ties to Hanford have declined to be considered to replace Al Alm, the Department of Energy's outgoing cleanup czar.

Bill Madia, director of the Pacific Northwest National Laboratory, and Dan Silver, deputy director of the Washington state Department of Ecology, were approached about the position.

Alm has been DOE's assistant secretary for environmental management since early 1996 but plans to resign Jan. 31, 1998, for reasons he never publicly discussed.

Alm is a holdover from former Energy Secretary Hazel O'Leary's term, which ended almost a year ago.

Madia is out of town on vacation this week. PNNL spokesman Greg Koller said the White House

approached Madia a few weeks ago to see if he would be interested, describing the contact as preliminary.

Madia told the White House he was flattered but thought he would "best serve" as Battelle-Northwest's director, Koller said.

Silver said he was recently approached by "Washington, D.C.," about the post but declined to elaborate.

Silver said he turned down the inquiry for personal reasons. He enjoys his state job, and he did not want to uproot his family, which includes high school-aged daughters.

Earlier, he might have been interested, but not now, Silver said.



Madia

White House and DOE officials in Washington, D.C., could not be reached for comment on how the search for Alm's replacement is going.

Alm is the senior DOE official specifically assigned to environmental cleanup issues, which includes Hanford.

His major legacy is the so-called "2006 plan," which calls for most of DOE's smaller sites and a significant portion of its larger sites, such as Hanford, to be cleaned up by 2006.

Some are skeptical of the plan because a significant amount of long-term surveillance and maintenance will still be required on the smaller sites after 2006.

Meanwhile, DOE has indicated so far that it will pursue the 2006 plan after Alm leaves.

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

New contract at Oak Ridge site similar to Hanford's

By DON McMANMAN and JOHN STANG

Herald staff writers

The new environmental management contract at the Department of Energy's Oak Ridge, Tenn., site requires much of the same commitment to local economic diversification as does Fluor Daniel's contract for Hanford.

Bechtel Jacobs Co. — a consortium of Bechtel National Inc. and Jacobs Engineering Inc. — was awarded the \$2.5 billion contract for Oak Ridge two weeks ago.

The consortium prevailed over

four other companies for the 5½-year contract.

Bechtel handles environmental remediation at Hanford.

Bechtel Jacobs will spend "several millions" each year to develop new non-nuclear-related jobs in the Oak Ridge region, said Joseph Nemec, president of Bechtel Jacobs.

He had been president of Bechtel Hanford in 1995 and 1996.

He declined to reveal the specific amount of money because the Oak Ridge contract award still can be challenged. Until the appeal period ends, Nemec considers the economic diversification amount to be competitive information.

The Weapons Complex Monitor, a Washington, D.C.-based newsletter that covers DOE, reported community investment made up 20 percent of the score in evaluating each corporation's proposal.

Bechtel Jacobs has agreed to bring \$427 million in new payroll to the Oak Ridge area in 5½ years.

The Bechtel Jacobs proposal called for creating 3,000 non-DOE-related jobs over 5½ years.

That is similar to Fluor's contractual requirement to create 3,000 non-Hanford jobs over five years in the Mid-Columbia.

Fluor's other economic contractual obligations include creating a \$10

million venture capital fund. Another obligation is spending 50 percent of its operating budget over five years outside of the core Fluor team, with 30 percent to be spent in the Mid-Columbia region.

Meanwhile, Bechtel Jacobs already has lured one company to the Oak Ridge area, Nemec said. Bechtel Jacobs offered rent subsidies to attract the Toshiba service center — and 100 immediate jobs, with 200 more soon to come, Nemec said.

"Over the last year, we've looked at a number of companies that would benefit from resources and skills in the area. We've been in discussions with those companies to

determine what Bechtel Jacobs can do to attract them," Nemec said.

The unsuccessful bidders for the Oak Ridge contract are:

■ CB Environmental, owned by CH2M Hill Companies and Babcock & Wilcox Federal Services.

■ Foster Wheeler Group, owned by Foster Wheeler Environmental Corp., CDM Federal Programs Corp. and Newport News Shipbuilding.

■ Oak Ridge Integrated Solutions, owned by Duke Engineering & Services, Parsons Infrastructure & Technology and Numatec Inc.

■ Westinghouse Teledyne, owned by Westinghouse Electric Co. and Teledyne Industries Inc.

Hearings to focus on future of FFTF cleanup projects

By the Herald staff

Four public hearings are scheduled in January on whether most cleanup-oriented work at the mothballed Fast Flux Test Facility should be removed from the Tri-Party Agreement.

Most work to close the reactor down has been halted until the Department of Energy decides its fate.

The three Tri-Party Agreement agencies — DOE, the U.S. Environmental Protection Agency and the Washington Department of Ecology — have set the hearings to gather public comment.

The shutdown work might be removed, at least temporarily, from the legal pact that sets the timetables and standards for cleanup because DOE is considering whether the FFTF should be revived as a temporary or backup source of tritium while a long-term mission of producing medical isotopes is developed.

Sometime in 1998, DOE is expected to decide either to shut down the FFTF permanently or to

begin an environmental impact study to take a more formal look at resurrecting it.

While it is on standby, most environmental cleanup and dismantling work has been put on hold. And the three Tri-Party agencies are pondering whether that stalled work should be pulled from the Tri-Party Agreement milestones.

If DOE opts to close the reactor permanently, the milestones would be reinstated, according to the three agencies.

Some maintenance and environmental work — which could be applied to both closing or reviving the reactor — is being done.

The four public hearings are scheduled for:

■ 7 p.m. Jan. 13 at the Hood River Inn, 1108 E. Marina Way, Hood River, Ore.

■ 7 p.m. Jan. 14 at the Oregon State Office Building, 800 NE Oregon St., Portland.

■ 7 p.m. Jan. 20 at the Rainier Room at the Seattle Center in Seattle.

■ 7 p.m. Jan. 22 at the Federal Building in Richland.

DOE gives PNNL high evaluation

By ANNETTE CARY

Herald staff writer

The Department of Energy on Tuesday gave the Pacific Northwest National Laboratory one of its best evaluations ever for performance last year.

"There was not one soft spot in the whole evaluation," said lab director Bill Madia. "It was the most universally excellent evaluation we've ever gotten."

The DOE

gave the lab a score of 4.3 on a scale of 0 to 5. That's a score that

puts it in the top range of an "excellent" rating, 0.2 points shy of a rating of "outstanding."

The DOE rated the laboratory in six areas for fiscal 1997, giving it excellent or outstanding ratings in all areas. In the category that counted for 30 percent of the final score, scientific excellence, it was rated outstanding. It also got a perfect score in economic development.

"DOE continues to be very pleased with the laboratory's performance and believes Battelle has positioned the laboratory well for continued success in the future," said John Wagoner, DOE's Hanford manager. Battelle operates the laboratory for DOE.

Broadening the base from which the laboratory gets research money has helped the lab, Madia said. Rather than relying on DOE for money, the lab is doing research for a client base ranging from the Department of Defense to industrial customers.

■ **FARMING:** PNNL expands research in farming and food processing. **Page A7.**

Hanford budget better than expected

By JOHN STANG

Herald staff writer

Layoffs at Hanford this year might not be as bad as originally thought, but the site's trimmed budget could slow waste cleanup.

The Department of Energy's Richland office recently finished divvying up the \$1.093 billion that DOE's Washington, D.C., headquarters allocated to Hanford in late November for fiscal 1998.

That's a 2 percent drop from the \$1.115 billion budget for fiscal 1997.

The lower budget for 1998 is expected to slow the pumping of radioactive wastes out of Hanford's single-shell tanks and jeopardized some Tri-Party Agreement milestones.

And staffing will continue to be cut, but not as much as expected last month. Bechtel Hanford Inc. plans to lay off between 130 and 150 people by September — which is fewer than the original worst-case scenario of 220.

The appropriate officials were unavailable Tuesday to discuss how the final budget will affect Fluor Daniel Hanford's fiscal 1998 work force restructuring plan, which potentially could lay off "fewer than 500" workers.

Here is how the fiscal 1998 budget evolved:

Last spring, DOE requested Congress appropriate \$1.109 billion to operate and clean up Hanford in fiscal 1998, which began Oct. 1, 1997. Also, DOE wanted Congress to set aside another \$427 million to

eventually pay for a long-term project to convert Hanford's tank wastes in glass beginning in 2002.

Congress and DOE's Washington, D.C., headquarters ended up sending \$1.093 billion to Hanford with another \$115 million set aside for the glassification program.

That broke down to:

■ \$984 million going to the actual cleanup program, which is \$4 million less than the \$988 million DOE originally requested.

■ \$64 million for DOE's Richland office to manage Hanford, which is \$8 million less

than the \$72 million originally requested.

■ \$45 million for science, technology and other programs, which is \$4 million less than the original request of \$49 million.

A lot happened to Hanford programs between February, when the budget request was submitted, and December, when the final allocations were set, said Bob Tibbatts, director of DOE's budget division at Hanford.

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PNNL satellites study Mid-Columbia agriculture

By ANNETTE CARY

Herald staff writer

A patch of leafy green potato plants growing along the Columbia River near Paterson is being surveyed by satellite with the same scrutiny brought to federal defense missions.

The satellite is looking not for signs of weapons, but of nitrates. By photographing the color of potato leaves in light spectrums not visible to the eye, the satellite can show farmers which patches of their fields could benefit from more fertilizer.

As satellites gain the ability to hone in on areas as small as a meter, the pictures may be able to easily show farmers not just where their potato patch is lacking nitrogen but also where other crops from grapes to bananas might be infected with disease.

The experiment is part of the Pacific Northwest National Laboratory's new expansion of its farm and food processing research program. The marriage of the Richland national laboratory and agriculture is a natural.

The Mid-Columbia is rich in experts in the field — farmers.

"We don't have to fly across the country to learn about the agriculture industry and its needs. It's right here," said Douglas Lemon, a PNNL senior program manager who is leading the agriculture initiative.

And there's a growing demand for agriculture research in tandem with a growing population. "In 30 years, 50 percent more people will be coming to dinner every day," Lemon said.

"The scientific and technical problems are of such a scope we need a national laboratory so we do not get a piecemeal approach to solving them," Lemon said.

One solution should not make another problem worse. Pressure to produce more food and fiber will have to be balanced with competing demands of urban areas, other uses for natural resources and the need for clean air and water.

The Department of Energy laboratory has been applying its science and technology strengths to agriculture research since the 1970s. But the program is being expanded since the Energy Department and Depart-

"We don't have to fly across the country to learn about the agriculture industry and its needs. It's right here."

—Douglas Lemon,
PNNL senior program manager

ment of Agriculture pledged to cooperate in agriculture research in 1995.

The laboratory will put an additional \$1 million of seed money into developing the program this year. It anticipates that as ideas are developed, the government will want to invest more research money into new technologies and products that solve particular problems.

"The farmer is the first true environmentalist," said Mike Brown, one of the heads of the Agri-Business Commercialization and Development Center in Richland, which transfers PNNL technology to actual use.

"If you can give (farmers) information that is cost-effective, they will do it," Lemon said.

Some of PNNL's proposals are largely theoretical now.

For instance, researchers believe there are opportunities to help farmers, who oper-

ate on narrow profit margins, get more of the money that comes from processing their crops. Any processing that can be done with portable equipment at or near the field — such as turning tomatoes into paste — could increase farmers' profits.

The laboratory also is working on ways to turn what is now farm waste into valuable products. Farmers might one day sell their corn stalks, cobs and starch to be used for chemicals to make clothing fibers or plastic-like material.

Genetic engineering offers other possibilities. Plants may be developed that efficiently produce large quantities of enzymes, which now are typically produced in expensive fermentation methods. Potatoes, for example, might be engineered to produce enzymes in their leaves but not in the tubers, giving farmers two crops from one plant.

Efforts also are under way to develop plants capable of manufacturing blood proteins. The proteins could be given to people without the risk of transmitted diseases from human blood.

Consumers could benefit from proposals to find better ways to detect contamination in food. Traditionally, colonies of pathogens are grown for several days until there are enough to be easily detected — an impractical method for protecting diners.

Scientists are optimistic technologies might be adapted to allow large quantities of food to be scanned quickly for contamination. That might include looking for byproducts of microbes.

Other researchers are working on understanding the fundamental science of the interaction between plant roots and the microbes in the soil. They know legumes, such as peas, can take advantage of microbes that convert nitrogen into food for plants. Other microbes may be developed to protect plants from metals or harmful microbes.

"We have the scientific and technical expertise necessary to help bring about positive, significant changes in the way the world feeds itself," Lemon said. "We have the right kinds of skills to help solve the problems."

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B&W Hanford gives cancer event a boost

By the Herald staff

The 1998 American Cancer Society Relay for Life is off to a running start with the help of workers at B&W Hanford Co.

Employees there got frugal with their Christmas party to raise money for the cancer society. Members of the Employee Club hustled to save \$2,000 from the money the corporation budgeted for the party.

Employees added the savings to \$2,500 already pledged by the company to Relay for Life. The company came up with another \$500 to round the donation up to \$5,000. Bill Heer, a cancer survivor and president of the company, is the honorary chairman of this year's Relay for Life.

Teams are signing up now to participate in the event that culminates with a celebratory 24-hour relay May 29-30 at Edgar Brown Stadium in Pasco.

This year's goal is \$73,000, which teams will raise in coming months.

Dottie Walton-Luglan, executive director of the Benton-Franklin unit of the American Cancer Society, said she's seen teams raise money in just about "any way that's legitimate or ethical."

Teams can register by calling 783-5108. Typically, 10 to 15 friends, relatives or co-workers sign up as a team.

Fluor executives to talk at luncheon

Fluor Daniel Hanford executives are speaking at a public forum at noon Thursday at the Doubletree Hotel Hanford House in Richland.

The event is sponsored by the Mid-Columbia Alliance of Chambers made up of the Richland, Pasco, Kennewick and West Richland chambers of commerce.

The Fluor speakers are Hank Hatch, the president and chief executive officer, and Dan Carlson, the director of economic transition. They'll talk about the company's first year managing the Hanford nuclear cleanup project and plans for 1998.

The lunch costs \$12. For reservations, call the Richland chamber at 946-1651.

Radioactive water spilled at 100 Area

By ANNETTE CARY

Herald staff writer

A split pipe in a Hanford building spilled 36,000 gallons of water contaminated with low-level radiation Wednesday.

Most of the water ran into a floor drain and was collected in a sump, but up to 2,000 gallons ran under doors and onto the ground outside. The building houses a spent-fuel basin for Hanford's closed N Reactor in the 100 Area.

Two Bechtel Hanford Inc. equipment operators unknowingly walked through the area before the spill was discovered but did not spread the contamination.

The water ran onto gravel and concrete in two areas that had been contaminated years earlier. The N Reactor has not operated since 1987.

The soil there "is pretty polluted already," said Sheryl Hutchison, communications director for the state Department of Ecology. However, the state "considers any

potential release of radiation to be very serious," she said.

The 2,000 gallons — enough water to fill three large hot tubs — had several contaminants. The predominant one was strontium. Cesium and tritium also were detected. Bechtel put the level of contamination at about 0.4 curie.

The spill was reported to the Department of Energy as an off-normal event, the least serious of three levels of incidents the DOE requires to be reported. If a curie is present, the amount of radioactivity in one gram of radium, it's reported at the next level, an unusual occurrence.

One contaminated area, near two roll-up doors, is about 40 by 45 feet, said Tom Logan, Bechtel project manager for the N area. The other, on the side of the building closest to the Columbia River, is about 20 by 30 feet. The building is a couple of hundred yards from the river.

For now, the contaminated area is roped off. Bechtel will clean up and stabilize the ground, possibly by covering the area with concrete.

The water that carried contamination deeper into the soil did not add substantially to cleanup work that will be needed there eventually, Bechtel officials said.

There also may have been some contamination to an outside wall of the building, but technicians were not able to tell whether radiation there was from the Wednesday spill or from previous contamination.

The spill was discovered at 8:10 a.m. by Bechtel employees who were starting their shift. They immediately shut down the filtration system and notified Bechtel management that water might have leaked outside the building.

Shortly before then, two workers had walked across one of the contaminated areas on their way to check and start a compressor. It had been raining, and the ground was already damp and covered with puddles from rainwater.

Radiological control technicians were needed to identify where the ground was damp from the spill and where it was damp from the rain. A small amount of contamination was

found on the boots of the two equipment operators, but it did not come into contact with their skin.

The contaminated water leaked from a two-inch, steel-reinforced PVC pipe. The flexible, clear pipe is used to carry water from the N Basin to a filter system that operates 24 hours a day.

The pump filtration system had been checked at 2 a.m. and the pipe was not leaking then.

The pipe met all engineering specifications, and it is unknown why it developed a 2-inch split, Logan said. The hose was installed Nov. 22 as part of routine maintenance.

The water that drained into the sump will be pumped back into the N Basin — a concrete container that looks something like a large indoor swimming pool.

The Department of Ecology and DOE were notified of the spill at about 9 a.m. Wednesday.

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Friday, Jan. 9, 1998 Tri-City Herald

Fluor expects to lay off 400 workers

By JOHN STANG

Herald staff writer

Up to 400 employees of Fluor Daniel Hanford and its subcontractors are expected to be laid off by Sept. 30.

About 100 of those layoffs are likely later this month, and the rest in a semi-steady trickle through Sept. 30, the end of fiscal 1998, said Dom Sansotta, the Department of Energy's manager for contractor work force programs, and Gordon Beecher, Fluor's director of human resources.

This puts the predicted fiscal 1998 layoffs for Hanford's two biggest corporate teams — led by Fluor and Bechtel Hanford Inc. — at 530 to 550.

Previous estimates of that number had been as high as 720.

The 400 Fluor layoffs would be spread among seven subcontractors, which employ nearly 5,500 people.

Bechtel's predicted 130 to 150 layoffs would be spread among its three-company team of about 970.

Beecher expected the layoffs also will

affect Hanford's six spinoff "enterprise" companies, which employ about 2,000 additional people outside Fluor's "inside-the-fence" umbrella.

But those companies are technically independent of Fluor's core seven-company team, and each has to deal individually with the effects. Consequently, Fluor did not calculate how the layoffs would specifically affect the enterprise companies, which handle different mixes of Hanford and non-Hanford work.

Fluor's layoffs are addressed in its work force restructuring plan, which DOE approved Thursday.

Such a plan is required if a federal contractor expects layoffs for a year to exceed 100. In a December memo to employees, Fluor Hanford President Hank Hatch speculated the layoffs would be "fewer than 500."

Since the number of predicted layoffs is less than 500, Fluor is not legally obligated to provide 60 days advance notice to a worker marked for layoff — which had been standard during Hanford's previous big layoffs.

However, U.S. Rep. Doc Hastings, R-Wash., protested that change in mid-December.

Consequently, workers with less than two years will get a combination of 30 days notice and severance pay, Beecher and Sansotta said.

More senior workers will get their standard severance package, which includes a week of pay for each year worked, plus a minimum of two weeks notice, but Fluor will try to give more notice if possible, they said.

In a Thursday memo to Fluor workers, Hatch wrote: "We are committed to looking for opportunities to employ (laid-off) workers on other Hanford projects if their skills are appropriate and needed."

The primary reason for the layoffs is Hanford's shrinking budget.

Hatch's memo, Sansotta and Beecher said, listed these factors as affecting the layoffs:

■ Trying to trim the Fluor team's "indirect costs" by an extra \$12 million.

Indirect costs cover overhead, plus equipment and facilities shared by several firms. For fiscal 1998, the core Fluor team has a target of cutting indirect costs from 1997's level of \$302 million to \$278 million.

The \$12 million is to be extra trimming

below the \$278 million target, with that money shifted to cleanup projects, Sansotta and Beecher said.

■ The impending finish of deactivating B Plant, a closed chemical processing facility. The target to complete deactivation is September, which is when some workers are expected to be laid off.

■ Some organizational changes at the Plutonium Finishing Plant, which likely will shift some people to B Plant to replace people already gone because of attrition.

■ The upcoming shift of about 20 Fluor training workers to an outside contractor, which will assume those training responsibilities in March. That contractor is required to hire its employees from current Hanford workers.

■ Shifting some workers to Johnson Controls Inc., which is revamping and operating privatized steam plants under a long-term contract.

■ Cost-trimming and improvements in efficiency on tank farm and waste management projects.

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Groups criticize FFTF at press conference

By JOHN STANG
Herald staff writer

Backed by two members of Oregon's congressional delegation, two Hanford watchdog groups charged Friday that making materials for nuclear weapons at the Fast Flux Test Facility would produce 66 tons of "the most dangerous wastes at Hanford."

That charge and others were made at a Portland press conference attended by U.S. Sen. Ron Wyden, and U.S. Rep. Elizabeth Furse, both D-Ore. and representatives of Seattle-based Heart of America Northwest and Portland-based Hanford Action.

"Our research ... shows that the high-level nuclear wastes created from nuclear weapons production at the FFTF reactor will be the most dangerous waste at Hanford," Gerald Pollet, Heart of America's director, said in a press release.

Hanford officials said the allegations are based on inaccurate interpretations of public documents.

The 54 million gallons of high-level radioactive wastes stored in Hanford's underground tanks are usually

considered the site's greatest danger.

In the next two weeks, the Department of Energy will hold public hearings in the Northwest on whether to delay cleanup of the mothballed experimental reactor until a final decision is made.

Citing "recently declassified documents," Heart of America charged that DOE has failed to tell the public about the risks of operating the reactor.

But DOE has never classified FFTF's safety information, Hanford officials said. Much of it is available on the Internet and in various public reading rooms.

Some of the most damning comments in Friday's press announcement came from the so-called JASON report on the feasibility of reviving the dormant reactor, which was released to the public in 1996.

The independent JASON panel found a significant risk of a reactor meltdown or release of radiation. But according to Hanford officials, Heart of America's quotations of the JASON report were "taken out of context."

The passages cited a worst-case scenario of a potential public concern, but the overall report con-

cluded this scenario is unlikely, said Ernie Hughes, DOE's FFTF project manager.

Heart of America's release also said full public feedback and safety reviews would be shortchanged in order to get the FFTF on line by 2001.

Neither Wyden nor Pollet could be reached by phone Friday. Wyden's press aide David Seldin said reviving the FFTF also presents the danger of tritium gas being released into the air.

"Restarting the FFTF is a blast from the past. It's a step backward at a time when DOE should be moving forward with cleanup—not creating more and more danger for the people in the Tri-Cities and throughout the Northwest," Seldin said.

Information was unavailable Friday on which "recently declassified documents" were cited by Heart of America.

DOE is trying to decide if the dormant FFTF should be revived as a backup or interim tritium source while phasing in a long-term mission of producing medical isotopes. Tritium boosts the explosive power of atomic bombs.

Sometime this year, DOE officials expect to decide whether to perma-

nently shut down the FFTF or begin an environmental impact study, which would examine the matter further—including seeking formal public input.

Hughes and Battelle's Walt Apley, director of the FFTF Standby Project Office, said an operating FFTF would produce 66 tons of spent nuclear fuel over 30 years—or 2.2 tons annually. The reactor also would produce four cubic yards of high-level radioactive wastes a year, they said.

The spent fuel would be stored in a short-term site in the 400 Area before going to a long-term interim storage site where Hanford plans to store another 2,300 tons of spent nuclear fuel from the K Basins. Eventually, all this fuel is supposed to go to a Nevada repository.

Extracting tritium from the "targets" in the FFTF's fuel assemblies is extremely difficult, making accidental tritium releases very unlikely. In fact, the tritium extraction would take place at DOE's Savannah River complex, Hughes and Apley said.

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TUESDAY, JANUARY 13, 1998

TRI-CITY HERALD

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\$42 million increase eyed for Hanford tank farm work

By JOHN STANG
Herald staff writer

"There's no assurance that we'll get all of it."

— Linc Hall,
Lockheed Hanford president

Lockheed Martin Hanford Co. predicts \$350 million will be needed in fiscal 1999 to keep cleanup work at Hanford tank farms on track to begin converting radioactive wastes into glass by 2002.

That is \$42 million more than the \$308 million allocated for tank farm work in fiscal 1998—which began last October.

However, the \$350 million figure for fiscal 1999—which begins Oct. 1, 1998—has been long expected and is no surprise, said Linc Hall, Lockheed Hanford president. And that amount will keep work on schedule, he said.

He cautioned the amount is a preliminary figure that still has to be reviewed by the Department of Energy in Richland and Washington, D.C., and by Congress.

"There's no assurance that we'll get all of it," Hall said.

The \$350 million is part of a "ready-to-proceed" memorandum Lockheed sent to DOE Monday.

Lockheed manages Hanford's tank farms for Fluor Daniel Hanford, the overall manager of Hanford for DOE.

The memo aims to map out what is needed to get Hanford's tank wastes into the right chemical conditions at the right places at the right times for two privatized teams to accept those wastes to begin glassification in 2002. Hanford has 177 underground

tanks containing 54 million gallons of radioactive wastes that DOE wants to convert into glass.

The wastes in 16 tanks are supposed to be glassified by 2011, with the rest to be tackled later.

Two corporate teams—led by BNFL Inc. and Lockheed Martin Advanced Environmental Systems—are scheduled to submit their glassification proposals to DOE in two weeks. DOE is supposed to accept both, one or none of those proposals in May.

The significance of the "ready-to-proceed" memo is that the glassification plans and the preparation-for-glassification plans will be tied together for the first time when DOE makes its decision in May, Hall said.

He said Lockheed Hanford should be able to accomplish all the preparation work if DOE and Congress approve its budget requests.

Preparation work includes installing pumps, upgrading safety systems, setting up pipelines to transfer wastes, improving procedures and conducting training.

The \$350 million figure needs to be viewed in the context of DOE's upcoming fiscal 1999 budget request

for Hanford, which is expected to be unveiled sometime in early February.

The overall cleanup budget request is expected to be in the range of \$1 billion to \$1.1 billion.

But the tank farm budgets—and the rest of Hanford's programs—are facing the likelihood that overall site cleanup budgets will not exceed \$1 billion to \$1.1 billion for several years.

Consequently, any cost increases in any one program are expected to cut money available for other work.

For example, predicted cost increases in the spent nuclear fuel project are expected to squeeze the overall budget by 2000.

And within the tank farms program itself, tradeoffs are already under way.

Most of the pumping out of the older tanks is being delayed to keep the glassification preparation work on track in fiscal 1998.

In fact, the \$308 million allocated to the tank farms in 1998 is \$39 million short of what Hanford wanted to meet its legal cleanup obligations, such as pumping out the older tanks.

Hall noted budget shortfalls could accumulate over the next few years. But he added that Lockheed, Fluor and DOE are working to trim costs and make the preparation work more efficient.

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Hood River hearing on FFTF delayed

Today's hearing in Hood River on the possible removal of the Tri-Party Agreement milestones pertaining to the Fast Flux Test Facility has been postponed.

Heavy snow caused the delay. No new date has been set.

A second hearing set at 7 p.m. Wednesday in Portland is still scheduled at the Oregon State Office Building, 800 NE Oregon St.

Also scheduled are hearings at 7 p.m. Jan. 20 at the Seattle Center, and at 7 p.m. Jan. 22 at the Federal Building in Richland.

The Department of Energy is considering whether it will permanently shut down the dormant research reactor or begin an environmental impact study of whether to resurrect it. That study will include formal public input.

DOE is looking at whether the FFTF is a valid interim or backup reactor for producing tritium and then phasing in production of medical isotopes.

If an environmental impact study is tackled, the purpose of these hearings is to decide whether work on the FFTF should be removed from the Tri-Party Agreement's timetables.

— Compiled by the Herald staff

U.S. Senator Murray pushes for Hanford downwinder plan

By JOHN STANG
Herald staff writer

Medical monitoring of Hanford's downwinders should be a federal budget priority, U.S. Sen. Patty Murray has told Energy Secretary Federico Peña.

"While some funds were directed (in fiscal 1998) to this monitoring program, the (Department of Energy) has made no real long-term funding commitments," Murray, D-Wash., said in a letter sent to Peña on Wednesday.

DOE balked at spending \$12 million in fiscal 1998 to screen the health of people who lived downwind of the Hanford nuclear reservation and may have been exposed to radiation in the 1940s and 1950s.

While \$823,000 was allocated to figure out how to set up a screening program in 1998, DOE and the federal Agency for Toxic Substances and

Disease Registry still are discussing how to find the \$109 million needed over seven to nine years.

The medical monitoring program, to be coordinated by the federal registry, would be the first concrete assistance offered to downwinders after years of scientific studies and legal battles.

The monitoring program would alert former Hanford-area residents who have scattered around the country over the past 50 years to their potential health risks.

About 14,000 people would be eligible. They were children in Eastern Washington and Eastern Oregon during the 1940s and early 1950s when large doses of radiation were released from Hanford during production of plutonium for nuclear weapons.

The program called for them to be screened periodically for thyroid problems, including cancer, and

referred to doctors if necessary. The program would not provide medical care.

In the past, DOE's Washington, D.C., headquarters paid for downwinder medical matters out of its budget.

Downwinders and federal health officials claim health needs are being unfairly pitted against environmental concerns.

In her letter, Murray suggested DOE find money in its environmental, safety and health budget, instead of its environmental management budget.

"We cannot ask (the Hanford region) to choose between the health of those imperiled already and the health of those who may be jeopardized in the future if Hanford is not cleaned up," Murray wrote.

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New firm to train Hanford workers

By JOHN STANG

Herald staff writer

A team led by Exitech Columbia Corp. has won a three-year contract to train Hanford workers.

The contract award will shift some Hanford in-house work to a private firm operating outside the federal reservation.

Exitech's team beat six others seeking the contract, which includes two one-year options to extend. The deal was announced Tuesday by Fluor Daniel Hanford, overall manager of nuclear waste cleanup work at the Department of Energy site. The new contract begins March 1.

Actual cost of the new contract will depend on the amounts and types of training requested, said Pat Marmo, Fluor's manager for acquisitions. He estimated the three-year total at roughly \$5 million but said it "could end up higher or lower."

Fluor tentatively figures that it would cost about \$7 million to do that training in-house.

Right now, Hanford trainers provide classes in a wide range of industrial and nuclear-related topics — from how to put on radiation equipment to how to climb scaffolding safely.

Portland crowd rejects FFTF change

By CHRIS MULICK and JOHN STANG

Herald staff writers

PORTLAND — Dozens of hands held up little yellow slips of paper with "TPA" written on them.

Then on cue, all those slips were ripped.

That reflected the stance of the about 200 people in Portland on Wednesday evening who overwhelmingly opposed removing cleanup of the Fast Flux Test Facility from the so-called Tri-Party Agreement — a move viewed as a step toward restarting the reactor.

"This country does not need to produce tritium into the next century, if at all. This could be the death knell for cleanup. This is only the beginning of the battle," said Paige Knight, representing the watchdog group Hanford Watch.

By 9 p.m., no one had spoken in favor of removing the FFTF from the Tri-Party Agreement, the Hanford cleanup pact signed by the Department of Energy and its regulators.

This is the first of four hearings on whether cleanup and maintenance work on the FFTF should be removed from the Tri-Party Agreement's timetables if DOE calls for further study of reviving the mothballed plant.

If DOE decides sooner or later to shut down the FFTF, the work would be reinstated into the Tri-Party Agreement.

DOE is considering whether it will permanent-

ly shut down the dormant FFTF or begin an environmental impact study on restarting the reactor.

DOE is looking at whether the FFTF should be used as an interim or backup reactor to produce tritium, while phasing in a mission of producing medical isotopes. Tritium boosts the explosive power of atomic bombs.

The idea of producing tritium sparked much of the opposition in Portland — which included Oregon's political leaders.

"We must not be fooled by the idea there would be another mission. It would be a tritium mission. It is to me unthinkable that we would tell the international community ... that we would consider the production of more nuclear weapons," said U.S. Rep. Elizabeth Furse, D-Oregon.

State Rep. Frank Shields, D-Portland, noted Oregon's legislature almost unanimously passed a resolution in 1997 opposing the FFTF — saying "We normally don't agree on anything."

Opponents also argued:

■ Reviving the FFTF would distract efforts from Hanford's cleanup while adding more spent nuclear fuel to the site's woes.

■ Full public feedback and safety reviews would be shortchanged in order to get the FFTF on line by 2001, as proposed.

"Hanford's primary mission must be cleanup. We feel it is jeopardized with the production of waste," said Mary Lou Blazek, administrator for nuclear safety at Oregon's Department of Energy.

Future hearings on the issue are scheduled at 7 p.m. Jan. 20 at the Seattle Center, and at 7 p.m. Jan. 22 at the Federal Building in Richland.

A hearing in Hood River, Ore., was postponed because of heavy snows, and is expected to be rescheduled soon.

Energy Secretary Federico Peña is expected to decide sometime this year whether to dismantle the reactor or order the environmental impact study on its possible restart. An environmental impact study would likely take about a year to complete.

The FFTF's supporters — including Tri-Cities interests, Gov. Gary Locke and Washington's congressional members — back reviving the reactor largely because of the medical isotope mission that would create several hundred jobs at Hanford.

The plan calls for using radioactive isotopes produced in the reactor to treat cancer.

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"We must not be fooled by the idea there would be another mission. It would be a tritium mission. ..."

— U.S. Rep. Elizabeth Furse, D-Oregon

Explosion prompts new Fluor emergency plan

By JOHN STANG

Herald staff writer

Having an "incident commander" and designating someone to shadow injured people as a "health advocate" are among the fixes Fluor Daniel made in the wake of last spring's explosion at Hanford.

The botched emergency responses to in May's chemical tank explosion at Plutonium Finishing Plant have prompted an extensive overhaul of Fluor's procedures and training to deal with future emergencies.

Becky Austin, the Fluor official in charge of that overhaul, briefed the Hanford Advisory Board's safety committee on the measures Wednesday in Richland.

When the PFP tank exploded, confusion reigned because of conflicting orders from the PFP emergency director and the Hanford Patrol, which were operating under separate procedures.

Also, 10 workers were exposed to chemical fumes, and five hours passed before they got the OK to drive themselves to a Richland hospital. Numerous other missed signals and

delays piled on after that.

Fluor expects to finishing fixing flaws in planning, training, procedures and equipment by late March or early April, Austin said.

A test exercise might take place in June to see if the improvements work, she said.

Austin said most of the medical-related measures either are completed or near completion. These include:

■ Making the Hanford Fire Department chief or on-site battalion commander the "incident commander" in charge of an emergency response.

The Hanford Patrol would assume command only if a security breach is confirmed and that transfer is formally made.

■ A 24-hour-on-call "health advocate" would go directly to the appropriate hospital if an injured person is sent there. That advocate is to look after the employee during initial treatment and any follow-up.

This position has been in place since August and has been used with good results eight or nine times on various accidents, Austin said.

■ A Hanford Environmental Health Foundation doctor will automatical-

ly go to the hospital when an injured person is sent there.

■ Checklists and procedures for dealing with chemical and radiological emergencies are in the final stages with all three Tri-City hospitals.

■ Emergency workers on site are being trained to look beyond obvious symptoms in checking for exposure to hazardous chemicals or radiation

■ Respirators, protective clothing and equipment are in the process of being inspected and possibly upgraded. In May, numerous problems occurred with people not wear-

ing respirators or wearing improperly checked respirators.

■ Procedures are in place to ensure injured people are transported to hospitals by ambulances or government vehicles — not by private cars.

■ "Take cover" training is being revamped and emphasized.

Under the procedure, people stay inside during radiological or chemical emergencies. This rule was inconsistently followed after the PFP explosion.

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DOE review cites tank farm problems

By JOHN STANG

Herald staff writer

Morale, trust and communication problems are plaguing Department of Energy employees dealing with Hanford's tank farms, a DOE review concluded.

And DOE's Hanford Manager John Wagoner wants a list of fix-it measures ready in 30 days.

The review's report was unveiled Thursday in Richland by Wagoner and Suzanne Rudzinski, the review team leader from DOE's headquarters in Washington, D.C.

Hanford's top priority is removing and glassifying 54 million gallons of radioactive waste in underground tanks — a complicated, high-profile endeavor.

"You've got a complex problem. There's been a lot of pressure to meet deadlines on budget. ... What has happened is the people end of relations has been shortchanged," Rudzinski said.

She added: "There's not a good two-way exchange of information. ... There's not a good sense of trust between management and staff."

Hanford confirms more tank leaks

By JOHN STANG

Herald staff writer

More clusters of Hanford's tanks have leaked radioactive wastes into ground water below the federal site.

The Department of Energy confirmed wastes from the B, BX and BY tank farms have reached the ground water under the northern portion of the 200 East Area, DOE's Hanford Manager John Wagoner said Thursday in a press conference.

The conclusions come from Pacific Northwest National Laboratory studies.

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

Thursday's announcement means wastes from eight of those 18 tank

farms are believed to have seeped to the ground water 210 feet to 310 feet beneath the surface.

That contaminated ground water is slowly seeping toward the Columbia River, with the shortest travel time estimated to be about 20 years.

In November, DOE said wastes from five 200 West Area tank farms have reached ground water.

At that time, DOE officials said they expected to reach similar conclusions at the B, BX, BY tank farms — as they announced Thursday.

At least 200 square miles of Hanford's ground water are contaminated, with at least 100 square miles worth of contaminants at levels that exceed federal drinking

■ MORALE:
DOE review says tank-farm management needs fixing.
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Please see HANFORD, Page A2 ►

Radiation monitor interests Alaskans

PNNL starting to help northern neighbors develop stations

By ANNETTE CARY

Herald staff writer

For seven years, people walking through Leslie Groves Park in Richland have stopped to check radiation levels and weather conditions at a tiny station enclosed by chain link fence near the Columbia River.

The 24-hour computer display at the station has reassured the public the Hanford nuclear site is continuously monitored for radiation releases — but that Tri-City residents are exposed mostly to natural radiation and never to radiation from the site.

Now the Pacific Northwest National Laboratory in Richland is helping Alaska develop similar neighborhood watch stations to monitor radiation and weather conditions.

There, the concern is Russian nuclear reactors. A radiation release from the closest, Bilibino, in a remote Siberian town, could reach Alaska in two hours.

John Kelley, a professor at the University of Alaska Fairbanks who visited the Richland station Thursday, said Alaska had no monitoring equipment running when a reactor at Chernobyl melted down in 1986.

PNNL scientists are working with Russian scientists to make Soviet-designed reactors safer as part of an international effort. But Alaskans still want better monitoring of potential radiation exposures from Russia.

The first station has been set up in Fairbanks, with the next one planned for Seward.

In Fairbanks, a 20-foot aluminum tower gathers solar energy to charge batteries that power monitoring equipment.

Information on radiation, temperature, humidity and wind is averaged every 15 minutes and transmitted by satellite to a processing center at Los Alamos National Laboratory in New Mexico.

University students and engineers are maintaining the station in Alaska, keeping it transmitting despite the cold, dark Arctic winters.



Herald/Cary Best

Gregory Patton, left, a Pacific Northwest National Laboratory scientist, shows off the radiation and weather monitoring station Thursday in Leslie Groves Park in Richland to John Kelley, a professor at the University of Alaska Fairbanks, Tanya Colgan of PNNL and Alaska student Frank Levno-Chythlook.

In the Mid-Columbia, school teachers manage and operate nine electrically powered radiological air-sampling stations, sharing the information with students.

Four have computer displays so the public also can keep track of radiation and weather conditions.

They are at Leslie Groves Park, Edwin Markham Elementary School near Mathews Corner, Basin City and Heritage College in Toppenish, which is used as a comparison site.

The Leslie Groves station displays weather information, such as humidity, wind speed and temperature — and the radiation exposure rate.

No radiation ever has been recorded as a result of Hanford activity, said PNNL scientist Gregory Patton.

Most of the radiation recorded comes from nature, but the instruments at the station are sensitive enough to pick up trace levels from atmospheric nuclear tests decades ago.

For example, traces still are detectable from a Chinese test in 1981, he said.

The computer display of radiation at the Richland station mostly shows the results of uranium and thorium occurring naturally in the soil.

They decay into radon gas. The gas often is detected at higher levels in the morning and decreases as afternoon breezes pick up.

The station includes a pressurized ionization chamber, which continuously measures radiation around the station.

Silica gel containers are used to trap water vapor that is later analyzed for tritium.

Small particles of soil in the air also are trapped in filters to be checked later for radionuclides.

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Probe finds no reason for Hanford pipe break

By the Herald staff

Bechtel Hanford will no longer operate a water filtration system without workers present after a pipe broke Jan. 7 and water contaminated with radiation ran out a door in the 100 Area of Hanford.

An investigation into the incident has been wrapped up with no reason discovered for the pipe to have broken. However, if the piping had not been for a temporary project, different material would have been used, said Rick Dale of Bechtel. The pipe that split between 2 and 4 a.m. was made of flexible steel-reinforced PVC.

The pipe was used to carry water from an inside spent-fuel basin for Hanford's N Reactor to a filtration system that kept it clear of sediment.

The water covered spent-fuel chips and other highly radioactive objects waiting to be removed from the basin.

The spilled water had low-level contamination, Bechtel officials said. When the pipe split, 36,000 gallons of water sprayed from the break before workers returned for the morning shift and shut the system down, according to computerized measurements done by Bechtel. Most drained into a sump, but about 2,000 gallons ran out the door onto ground that had been contaminated years earlier when the reactor was operating.

The pipe has been replaced, but no improvements to the system are planned since most objects have been removed from the basin and the water should be drained permanently by the end of February.

WSU Tri-Cities to lease 3 Hanford buildings

By CHRIS MULICK

Herald staff writer

Some students and faculty at Washington State University's Tri-Cities campus soon will be moving into three laboratory buildings in Hanford's 300 Area.

WSU Tri-Cities signed a two-year lease with the U.S. Department of Energy on Friday for about 7,500 square feet of laboratory, office and storage space. The lease is valued

at \$52,800 per year and comes with an option for an additional three years.

The extra laboratories will house environmental science, biology and environmental engineering research, WSU Tri-Cities Dean James Cochran said. Faculty will be in place by Feb. 1.

The extra facilities, which have sat vacant for more than two years, will provide the first dedicated research laboratories for the branch campus. Research is currently conducted in classrooms, Cochran said.

"We've had to turn down a number of research contracts just because we didn't have the facilities," Cochran said. "This isn't pencil and paper research, this is laboratory research. We would be a decade on our campus before we could replicate the facilities we have here."

Cochran also hopes the extra space will attract more advanced students and faculty.

Peter Knollmeyer, assistant manager for facility transition for DOE in Richland, said he hopes research will contribute to cleanup

efforts and help address other issues at Hanford.

"We do know (the research) will be relevant to Hanford," said Tony Brooks, a senior research scientist at WSU Tri-Cities. "We don't know the extent it will be used and how effective it will be."

Brooks has worked in the same facilities while working for Pacific Northwest National Laboratories, conducting research on identifying exposure to radioactive or chemical materials. He had moved to the federal

facilities because he couldn't perform such research in existing facilities at the branch campus.

"Just doing the research in a site as challenging as the Hanford site will encourage some of our faculty to deal with the problems here," Cochran said.

Knollmeyer said he hopes WSU Tri-Cities' presence also will develop students who can help address problems at Hanford.

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DOE undersecretary to visit Hanford

The Department of Energy's relatively new third-ranking official is scheduled to visit Hanford from late today through late Thursday.

Undersecretary Ernest Moniz will be visiting Hanford for the first time. A major focus of his visit will be ground water and vadose zone issues.

Moniz had been the head of the physics department at the Massachusetts Institute of Technology before being appointed undersecretary in October.

Seattle crowd blasts FFTF restart, lawmakers

By JOHN STANG

Herald staff writer

SEATTLE — The Seattle crowd pounded state and federal bureaucrats Tuesday night with a steady barrage against reviving the Fast Flux Test Facility.

But the real targets were Gov. Gary Locke and U.S. Sen. Patty Murray.

Both support reviving the FFTF for a long-term medical isotope mission, accepting an interim or backup tritium mission as a bridge to get to the isotopes.

Two activist groups, Heart of America Northwest and the Government Accountability Project, hoped this hearing and others will persuade Murray and Locke to change their minds, the groups' leaders Gerald Pollet and Tom Carpenter told about

100 people in a preparatory meeting before Tuesday's hearing on the FFTF.

"This is so Patty hears it," Pollet said. "Her staff seems unaware (the FFTF) is taking cleanup dollars."

At the actual hearing at the Seattle Center, almost all the 450 people present opposed reviving the FFTF.

Some were scholarly, like a stream of doctors from Physicians for Social Responsibility and two University of Washington radiological professors who outlined their opposition to creating tritium while arguing the isotope mission is not needed.

Some were quaint, like the "Raging Grannies" — four grandmothers in granny gear who sang peace songs to charm the crowd. "Why put money for nuclear weapons. It doesn't make sense," said Kay Thode, 72, of Seattle, and

grandmother of 15.

Some were obnoxious, like the group dressed in white coveralls who blasted a whistle three times and a siren once during the first 15 minutes while state and federal officials spoke. And there was one surprise. Ben Cohen, chairman of the board of Vermont-based Ben & Jerry's Ice Cream was in Seattle for a conference, and he showed up to argue that reviving the reactor "is a bad investment."

"The United States is keeping up the nuclear arms race — against whom?" Cohen said.

More than 130 people had signed up to speak Tuesday evening.

This was the second of four hearings on whether cleanup and maintenance work of the FFTF should be removed from the Tri-Party Agreement's timetable if DOE funds a

further study of reviving the FFTF.

The Tri-Party Agreement is the legal pact among DOE, the U.S. Environmental Protection Agency and the Washington Department of Ecology that governs Hanford's cleanup.

If DOE decides sooner or later to shut down the FFTF, that work would be reinstated into the Tri-Party Agreement.

DOE is considering whether it will permanently shut down the dormant FFTF or begin an environmental impact study that will examine resurrecting it. That study will include public input.

DOE is looking at whether the FFTF is a valid interim or backup reactor to produce tritium, while phasing in a mission of producing medical isotopes. Tritium boosts the explosive power of atomic bombs.

Jim McDermott — the only Washington congressional member opposing the FFTF — read a statement saying the reactor would take money from cleanup.

Also, two University of Washington medical school radiology professors contended the FFTF's medical isotopes mission is not needed, putting them at odds with a recent Hanford study that concluded a potential demand exists. Dr. Janet Eary, university director of nuclear medicine, said: "There is not and probably will not be a shortage of medical isotopes in this country, given the global resource available to all users."

Another opponent is the Washington State Medical Association, which recently passed a resolution opposing the reactor's revival, said association representative Dr. Tim Keller.

Social Responsibility argued that the nation's nuclear arsenal already is sufficient without new tritium — and that arsenal should be reduced anyway.

The FFTF's opponents' arguments also included:

■ Reviving the reactor would distract efforts from Hanford's cleanup while adding extra amounts of spent nuclear fuel to the site's woes.

■ Full public feedback and safety reviews would be shortchanged in order to get the FFTF on line by 2001, the tentative target date if the reactor is revived.

The third hearing is scheduled at 7 p.m. Thursday at the Federal Building in Richland. The fourth is set for Feb. 12 in Hood River.

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Downwinders program gets \$5 million from DOE

By JOHN STANG
Herald staff writer

An additional \$5 million is going to set up a program to track the health of Hanford's downwinders this year — a program officials estimate would save six to eight lives a year.

The Department of Energy announced Thursday that it is providing the money to set up a medical monitoring program and a central registry to track the health of people who lived downwind of Hanford when there were big releases of radiation during the Cold War.

Until Thursday, DOE had allocated \$823,000 to figure out how to set up a medical screening program this year. The program is to be managed by the federal Agency for Toxic Substances and Disease Registry.

However, the program is expected to need \$109 million over its 7-to-9-year life. The ATSDR originally contended \$12 million would be needed in 1998.

On Jan. 14, Sen. Patty Murray, D-Wash., began pressuring DOE to find extra money.

Talks between DOE and ATSDR then came up with a mutually agreeable DOE appropriation of \$5 million for fiscal 1998, DOE Undersecretary Ernest Moniz and Hanford Manager John Wag-

oner said Thursday.

Money will come from funds at DOE's Washington, D.C., headquarters, and not from Hanford's cleanup money, which had been a sticking point as the matter was debated over the past few months, Wagoner said.

The medical monitoring program would be the first concrete assistance offered to downwinders after years of scientific studies and legal battles.

Monitoring would alert former Hanford-area residents who have scattered around the country over the past 50 years about their potential health risks.

ATSDR studies estimate such monitoring would uncover 38 new cases of thyroid cancer each year, potentially saving six to eight lives.

About 14,000 people would be eligible. They were children in Eastern Washington and Eastern Oregon during the 1940s and early 1950s when large doses of radiation were released from Hanford during production of plutonium for nuclear weapons.

The new program calls for them to be screened periodically for thyroid problems, including cancer and referred to doctors if necessary. The program would not provide medical care.

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Tri-Citians removed from federal panel on Hanford health effects

By ANNETTE CARY
Herald staff writer

The only Tri-City members of a federal citizens advisory panel on Hanford health effects have been dismissed from the board.

"I was greatly surprised to find that no local members were remaining on the subcommittee," said Jack Corley of Richland, who represented the Columbia Chapter of the Health Physicists Society on the board. "My understanding was that such an advisory committee is to be made up of primarily local citizens with specified interests."

organized the subcommittee. The qualifications included being open minded, diplomatic, representing an interest of an affected party and bringing expertise to the board, he said.

The law also requires the board be balanced by gender, race, geography and by interests and expertise.

Those leaving the board from the Tri-Cities include the only black member, Deborah Northern, and one of its two Hispanic members, Pete Chacon. The remaining Hispanic member, Ricardo Garcia, is from Granger, and one of the new appointments from out of state has an academic background in working with minority populations.

Bechtel to take on tank leak problems

By JOHN STANG
Herald staff writer

Bechtel Hanford Inc. will lead efforts to map out an overall plan by October to tackle Hanford's complicated ground water contamination problems.

The resulting master plan is not expected to change tank waste or ground water programs in fiscal 1998 but will influence these programs when fiscal 1999 begins Oct. 1, Energy Undersecretary Ernest Moniz said Thursday.

Moniz and John Wagoner, the Department of Energy's Hanford manager, announced Bechtel's new mission during Moniz's two-day visit to Hanford and the Tri-Cities.

The federal site, which in recent years has focused on cleaning up environmental problems caused by nearly five decades of making nuclear weapons materials, already has several programs mapping ground water contamination, 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.

"The level of (coordination) needs to be considerably upgraded. ... Frankly, it's an action I think has been needed for some time," Moniz said.

Bechtel's plan is supposed to include more scientific reviews and public, tribal and regulatory agency input. PNNL's Environmental Molecular Sciences Laboratory also is to be worked into the master plan.

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.

FFTF backers have their say in Richland

By JOHN STANG
Herald staff writer

A proposed medical isotope mission took center stage Thursday evening for the first time as hearings on the Fast Flux Test Facility moved to Richland.

And several Tri-Citians accused opponents of reviving FFTF of distorting facts about the dormant experimental reactor's safety record and its potential to be a major isotope producer.

"These vocal opponents have communicated with thousands of people. ... feeding them misconceptions and

half-truths to the extent that my conscience will not allow me to remain silent," said Alan Waltar of Richland, a past president of the American Nuclear Society.

About 260 people attended Thursday's hearing at the Federal Building in Richland.

Most applauded pro-FFTF remarks. At least 20 applauded anti-FFTF remarks.

Sixty-five signed up to testify — including two elected city officials, West Richland Mayor Jerry Peltier and Councilman Ken Dobbin. U.S. Rep. Doc Hastings, R-Wash., was present. Some staff members from some local governments and the office of

Sen. Slade Gorton, R-Wash., also were there.

Of the first 19 people to testify, 16 supported reviving the FFTF, and three opposed it.

This was the third of four hearings on whether cleanup and maintenance work on FFTF should be removed from the Tri-Party Agreement's timetables if DOE calls for further study of reviving it.

The Tri-Party Agreement is the legal pact among DOE, the U.S. Environmental Protection Agency and the state Department of Ecology that governs Hanford's cleanup.

However, FFTF's proponents and opponents are using the hearings as

forums to present their viewpoints on reviving the reactor.

If DOE decides sooner or later to shut down FFTF, that work would be reinstated into the Tri-Party Agreement.

DOE is considering whether it will permanently shut down the dormant FFTF or begin an environmental impact study that will examine resurrecting it. That study will include public input.

DOE is looking at whether FFTF is a valid interim or backup reactor to produce tritium, while phasing in a mission of producing medical isotopes.

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Herald/Paul T. Erickson
U.S. Rep. Doc Hastings, R-Wash., right, answers a question Thursday at the Federal Building in Richland during a hearing on the Fast Flux Test Facility as Gerald Pollet of Heart of America Northwest, left, and Jon Yerxa of DOE, listen.

Subcontractor struggles with K Basins cleanup

Fluor believes DE&S on road to improvement

By JOHN STANG
Herald staff writer

Think Michael Jordan.

Best basketball player in the world. But when Jordan switched to baseball, he was strictly minor league.

The analogy applies to the company in charge of moving 2,300 tons of highly radioactive spent nuclear fuel from a pair of leak-prone basins near the Columbia River, says Charles Hansen, the Department of Energy's assistant manager for waste management.

It's not an appropriate comparison, says DE&S Hanford's President Tony McConnell. But he admits this subsidiary of the blue-chip commercial nuclear power giant Duke Energy is struggling with the high-profile project.

Moving the spent fuel from Hanford's K Basins to a new storage facility in central Hanford — where it can't leak into the Columbia River — is one of Hanford's top priorities.

If successful, it would be the biggest cleanup project ever completed — showing skeptics in Congress and elsewhere that the billions spent on environmental restoration are having tangible results.

But so far, success has been elusive for this subcontractor to Fluor Daniel Hanford.

The project's completion date was bumped 19 months from 2001 to 2003. The lifetime budget estimate jumped from \$274 million to \$814 million, then to \$1.08 billion.

In October, the project got a "marginal" rating in Fluor's self-review and came under fire from the the Defense Nuclear Facilities Safety Board.

Then last month, Fluor sent a

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Photos courtesy Fluor Daniel

TOP: Work is under way inside the Canister Storage Building above huge underground vaults that eventually will hold spent nuclear fuel from the K Basins and glassified wastes from Hanford's tank farms. The dots on the floor are the openings to tubes where the fuel and glassified radioactive liquid wastes will be inserted into the vaults below. **ABOVE:** The cavernous vault beneath central Hanford's Canister Storage Building eventually will hold a forest of 220 steel tubes, each reaching 40 feet from floor to ceiling.

Hanford project to cost more than \$1 billion

By JOHN STANG
Herald staff writer

Hanford's K Basins contain nearly 2,500 cubic feet of radioactive sludge — roughly the size of two bedrooms.

The predicted cost to get rid of it is about \$70 million, about \$40 million more than originally predicted.

Treating the sludges is a major reason why

the K Basin cleanup project's lifetime budget has jumped by \$274 million — to \$1.08 billion.

In some ways, the K Basins project seems fairly straightforward. But that straight path is complicated.

The K Basins are two huge indoor pools each containing 1.3 million gallons of water to store 105,000 canisters of spent nuclear fuel from N Reactor. The first fuel went into them in 1975.

DE&S Hanford Inc.'s job is to move those

canisters into "baskets" (which look vaguely like metal mesh laundry baskets), and then put several baskets into 14-foot-long enclosed tubes.

All this is done underwater by remote control.

Then the tubes — dubbed "multi-canister overpacks" — would go to a building now under construction near the basins to draw the

Please see **COST**, Page A2 ▶

Bids in for Hanford waste job

By JOHN STANG

Herald staff writer

The two teams bidding to convert Hanford's radioactive tank wastes into glass have submitted their proposals but are keeping close-mouthed about details.

The teams, led by BNFL Inc. and Lockheed Martin Advanced Environmental Services, submitted their proposals Monday to the Department of Energy.

The government is supposed to decide in late spring whether to give one or both of the companies a contract to tackle Hanford's worst waste problem. The 54 million gallons of radioactive wastes to be converted into glass now are in 177 underground tanks, of which at least 67 are believed to have leaked, some of it reaching ground water.

The plan to deal with the wastes is to have two corporate teams build plants to convert the waste into glass, which eventually would be stored in an underground repository in Nevada.

The BNFL and Lockheed teams are supposed to build the first plants by 2002, and glassify 6 percent of the tank wastes by 2007. If those plants work well, they may operate beyond 2007, and Hanford would also build bigger plants to glassify the rest of the wastes by 2028.

Both teams submitted plans to build two plants — one for low-level radioactive wastes and one for high-level wastes.

On Monday, the two teams' leaders —

Maurice Bullock of BNFL and Jack Dickey of Lockheed — declined to give details on their proposals. They would say only that their final cost estimates are somewhat close to figures cited last summer.

They noted costs still could be negotiated over the next four months, and neither wanted to tip his team's hand to the other team. DOE is aiming at paying \$4 billion through 2007.

Last summer, BNFL estimated the prices for a low-level waste plant would be \$2.7 billion, and a combined high-and-low-level operation would be \$3.2 billion.

Lockheed estimated it would cost \$2 billion for the low-level plant and \$3.9 billion for a combined low-and-high-level operation.

Using those figures, any scenario involving both teams would exceed DOE's \$4 billion target cost. That sets up a dilemma over whether to go with one or two teams.

One-team supporters — including BNFL — contend Congress will never provide enough money for two teams.

Two-team supporters — including Lockheed — contend two competing teams are needed to keep costs down, and to provide insurance that at least one plant will function well.

Ultimately, Congress, which controls Hanford's purse strings, will decide how many teams to go with.

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Hanford alert accents need for fine-tuning

By JASON HAGEY
and KIM BRADFORD

Herald staff writers

The warning message telling Tri-Citians to evacuate a 25-mile stretch of the Columbia River because of an emergency at Hanford was inexplicably garbled in some cases and too easily misinterpreted, emergency officials said Thursday.

The problems caused confusion and even a brief period of panic throughout Richland, they said. And some worried the scare may give outsiders more reason to believe living in the Tri-Cities is dangerous.

But except for a few glitches with the warning system, Benton County emergency officials said Wednesday's incident was handled properly. It was a notion Fluor Daniel Hanford President Hank Hatch seconded during a speech at the annual meeting of the Tri-City Industrial Development Council.

"With 20/20 hindsight, maybe it was (an overreaction)," Hatch said. "But at the time it was just right."

Lorlee Mizell, director of Benton County Emergency Services, said local officials are working to correct the problems revealed by Wednesday's incident, in which boaters and anglers were told to evacuate the river between White Bluffs and Howard Amon Park.

State technicians will visit the

Tri-Cities on Monday to try to determine why the message, which was broadcast on most radio and television stations Wednesday afternoon, wasn't clear.

The "emergency alert system," the successor to the familiar but antiquated "emergency broadcast system," had never been used in a real emergency until Wednesday, Mizell said, but the system is tested monthly and has consistently worked fine. "We just shouldn't have had that problem," said Terry Hobbs, deputy director for Benton County Emergency Management.

Writers, not technicians, will attempt to fix the other glaring problem detected from Wednesday's emergency, which began with the discovery of a 2-ounce vial of potentially explosive acid in the crawl space of a building in the 300 Area of Hanford.

Although the message was intended only to clear people from the river itself, Mizell said it was obvious from the panic that passed through Richland that many people misunderstood and believed the evacuation area included the land as well.

For a community accustomed to

living beside a nuclear reservation, the Tri-Cities reacted with an uncharacteristic, if brief, sense of panic.

Classes were cut short at Washington State University's branch campus, a wrestling match at Hanford High was halted, the girls basketball practice at Hanford Middle School ended early, and a private athletic club even locked its doors early.

"This is an experience for us that tells us we need to change the message," Mizell said, "because it didn't do what we wanted it to do."

A simple tweaking of the prerecorded message is probably all that's needed, she said, possibly telling people to "clear" the river instead of "evacuating" it.

Although the vial of acid itself turned out to be fairly innocuous, Mizell defended the decision to close the river to the public. She said based on the information available to county emergency workers Wednesday afternoon, it was the right thing to do.

The 300 Area hugs the Columbia River, she said, making it one of the places where the general public can come within close proximity of Hanford. Until it's clear exactly what kind of emergency is occurring, it makes sense to tell boaters and anglers to leave, she said.

"The impact of a release in that area could be fairly immediate," Mizell said, adding it also could require more time for boaters and

anglers to reach a safe area than it would for somebody on land.

State Sen. Pat Hale, who works for Fluor Daniel while not serving in the Legislature in Olympia, said the community's response to the discovery was a smart one.

"I am very pleased that they took a very conservative approach," Hale said.

But Rep. Jerome Delvin, a Richland police officer the rest of the year, said the alert appeared to be mismanaged and gave outsiders another chance to paint the Tri-Cities as dangerous.

"One time they don't react, and another time they overreact," Delvin said, referring to an explosion in May at the Plutonium Finishing Plant that went unreported for several hours. "Use some common sense."

State Emergency Management Division spokesman Rob Harper backed the decision to call the alert given the uncertainties of the situation.

Harper said officials had not yet discussed the emergency message sent over the radio, but he defended its intent, saying such messages should remain simple enough to convince residents to take action.

"To provide a lot of detail, people will miss the immediacy of the message," he said.

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Bechtel wins top marks, bonus for Hanford work

By JOHN STANG

Herald staff writer

Bechtel Hanford earned its best-ever rating — posting its seventh straight "outstanding" grade for its performance at the site, the Department of Energy announced Wednesday.

That earned Bechtel \$4.19 million out of a possible \$4.55 million performance fee for a six-month period from April 1 to Sept. 30, 1997.

"Once again, (Bechtel) has exceeded DOE's performance expectations," stated DOE's Han-

ford Manager John Wagoner in a press release.

Bechtel President Steve Liedle said: "I'm real proud of our performance, and I'm real proud of all people in our organizations. It has been a real team effort."

Bechtel and its subcontractors CH2M Hill Hanford and Thermo Hanford tallied a rating of 92.73 percent for the period — compared with 89.15 percent for the previous six months.

Bechtel's team is in charge of a huge landfill for contaminated debris, closing and decontamination of Hanford's former plutonium

reactors and other environmental restoration work.

Bechtel's six-month fee is divided into two parts — a fixed fee of \$1.95 million and a performance-based fee that could have reached \$4.55 million.

Overall, Bechtel received \$6.14 million for work done from April through September.

DOE praised Bechtel for the way it managed and coordinated projects during the period and for working well with DOE, Hanford's regulatory agencies, Indian tribes and other Hanford interests.

However, DOE said Bechtel could

improve radiological monitoring and controls.

Efforts getting high marks include:

- Cleanup of more than 300,000 tons of contaminated debris from the areas around the B and D reactors, and the 300 Area — all next to the Columbia River. Bechtel safely deposited the materials at the huge central Hanford landfill, the Environmental Restoration Disposal Facility.

- Closing out N Reactor, which is on schedule to be completed by April.

- Installing new facilities to pump out and treat ground water contam-

inated with hazardous, nonradioactive chromium at the 100 K and 100 H areas.

- Keeping the "cocooning" of C Reactor on track and successfully testing new technologies on the project. "Cocooning" consists of demolishing outlying buildings, additional decontamination work, then sealing off the main reactor building. C Reactor's cocooning is scheduled to be done in September.

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Evacuation follows Hanford alert

Potentially explosive acid found in building

By JOHN STANG and MIKE LEE
Herald staff writers

Hanford workers plan to figure out today how to deal with a two-ounce bottle of dried-out acid crystals whose potential to burn or explode forced the evacuation Wednesday of Hanford's 300 Area and gave many Tri-Citians the jitters.

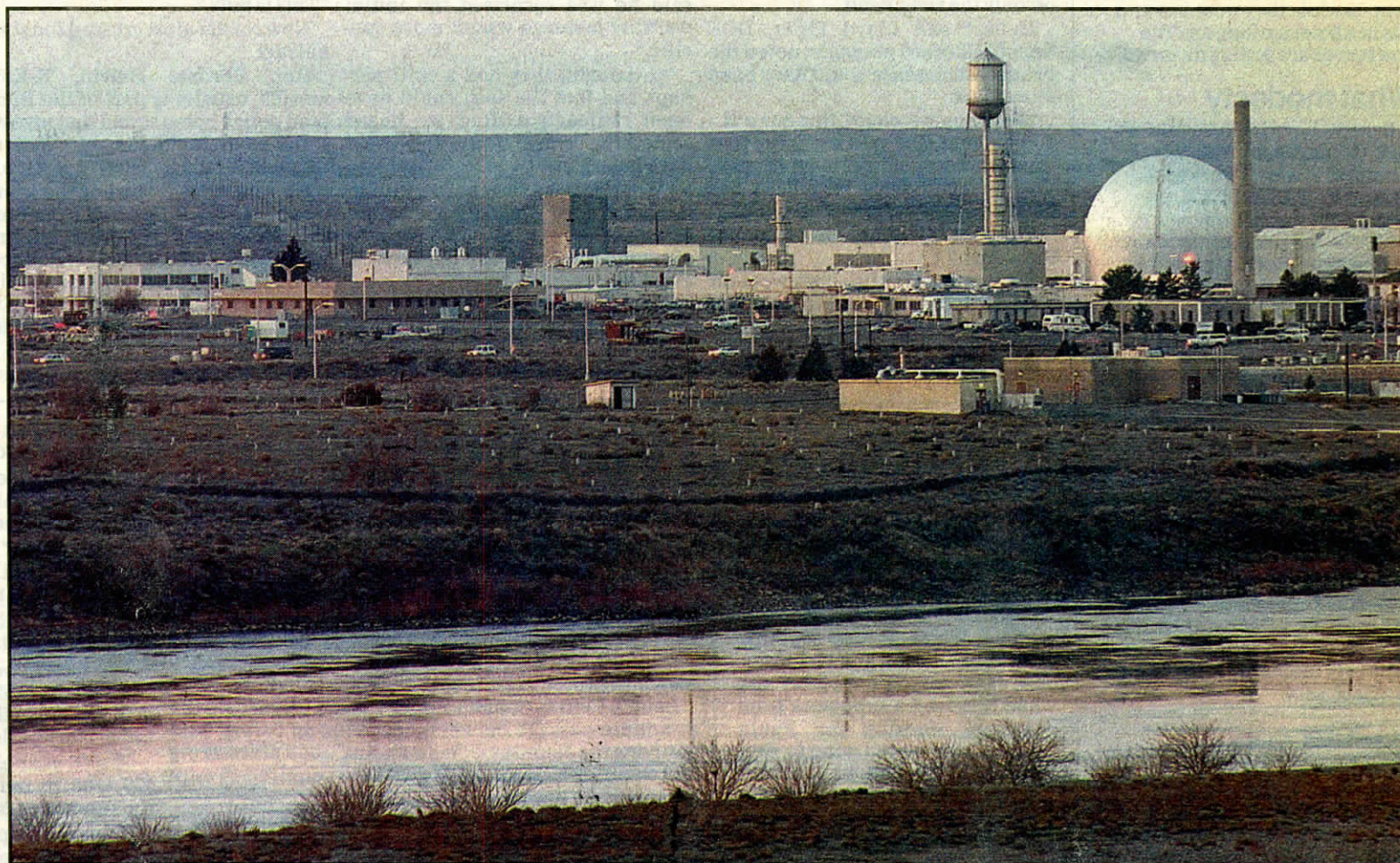
Two Waste Management of Hanford chemists went into the 327 Radiometallurgy Building on Wednesday evening to examine and videotape the vial of picric acid. The building contains irradiated nuclear fuel rods and radioactive cesium.

That examination led to the conclusion that the chemical is more likely to burn than explode, as originally speculated, the Department of Energy said.

DOE is considering adding water to neutralize the acid crystals, or putting it into a bomb trailer to take elsewhere. Workers are scheduled to return to all 300 Area buildings this morning — except for the 327 Building.

The Waste Management examination was the last action Wednesday evening after Hanford officials earlier that day called an "alert," the lowest of Hanford's three emergency levels.

The only other time in recent years such an alert was called was when a chemical tank exploded in May at the Plutonium Finishing Plant.



A stream of vehicles, middle left, leave the 300 Area on the Hanford Nuclear Reservation after an evacuation was ordered Wednesday when a bottle of

explosive picric acid was found in the 327 Building. This view of the 300 Area, just north of Richland, is from the Franklin County side of the Columbia River.

Wednesday's alert came after four Fluor Daniel and B&W Hanford workers discovered a two-ounce plastic bottle of powdered picric acid in a pail in a basement crawl space in the 327 Building just north of Richland.

They were inspecting the slightly contaminated area before to working on some steam pipes.

One worker spotted the plastic

bottle, lifted it, read the label, "and gently put it back down," said Lloyd Piper, DOE's deputy Hanford manager.

Also, a dark glass jug was found half-buried. Wednesday evening's exam concluded it was empty. The crawl space last was inspected two years ago.

The discovery took place at 2:45 p.m., Hanford officials said.

The 25 to 30 people in the 327 Building were evacuated at 3 p.m. The on-site "occurrence notification center" was contacted at 3:05 p.m. A formal "alert" was declared at 3:21 p.m., and messages were passed for people to stay indoors.

Local governments and emergency agencies were contacted at 3:45 p.m. — 24 minutes after the

alert was declared. Hanford emergency "take-cover" sirens sounded at 3:57 p.m.

The 300 Area's few hundred workers were ordered to stay indoors until their evacuation began at 4:55 p.m.

The required time from declaration of an "alert" to notifying local agencies is 15 minutes.

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Concerns raised, rumors rampant after radio warning

By the Herald staff

A radio warning about a Hanford emergency Wednesday sent some Tri-Citians scrambling to evacuate their homes, schools and businesses and many more to their phones, radios and televisions to try to find out what was happening.

It started with something never heard on Tri-City radio in officials' recent memory — a real emergency broadcast about Hanford.

At 4:03 p.m., the high-pitched whine of the broadcast signal first sounded on KONA radio.

"This is an emergency message for people in northern Benton and western Franklin Counties from your Emergency Management Agencies.

"There is an emergency at Hanford."

The message, read by emergency services spokeswoman Judy Hebert, continued. "Immediately evacuate the following areas: The Columbia River from White Bluffs to Howard Amon Park."

Listeners deluged the radio sta-

tion with calls, said the station's chief operator, Art Blum.

"All the lines lit up immediately," he said. "We were trying to reassure people."

The broadcast caused a stir in north Richland.

The Hanford Middle School girls basketball team was practicing when the emergency system was activated.

A teacher came into the gym and talked to the coach, said eighth-grade twins Jennifer and Nicole Keller. The coach told the girls to get their bags, go outside and get into staff members' cars. The team was taken to Howard Amon Park, where parents came to pick them up.

"I started crying because all my parents work out there," Nicole said. What scared her was the spinning yellow emergency light on northbound George Washington Way — a light she'd never seen turned on.

"I was really scared. (My friends) were helping me out," she said. "Then we figured out it was nothing."



Greg Hopkins, a Hanford security officer, waves evacuating Hanford employees through the George Washington Way gate of the 300 Area.

At the nearby Washington State University branch campus, some of the 30 classes were cut short by instructors and some of the 200 remaining students left the building.

"There was some panic," said Dean James Cochran, noting that things calmed down fairly quickly. "We couldn't tell if it was an

nuclear explosion. ... I presume if it was a nuclear explosion, we would have been more cognizant of it.

Cochran was in a meeting when he got word of the emergency. Within minutes, he was talking with Department of Energy and Hanford Patrol officials. "We just wanted to get clarification before

we overreacted," he said. "We wanted to be careful that we weren't like people in a crowded theater yelling fire."

Sunny Young, a 53-year-old Kennewick woman rowing in a scull near Leslie Groves Park, might have been the only person on the

Please see **WARNING**, Page A2 ▶

Chemists soak Hanford vial

By JOHN STANG

Herald staff writer

A vial of potentially explosive powdered acid at Hanford was supposed to be safely soaked by this morning.

The vial, which caused a panic Wednesday in the Tri-Cities, was put in a bucket of water at 10 p.m. Thursday. Hanford officials hoped the water would seep into the capped bottle to "neutralize" the acid.

Chemists then were expected to enter a rocky crawl space under Hanford's Building 327 during the night to see if water seeped through any defective seals to cover the volatile crystals.

■ **HINDSIGHT:** Hanford to work on improving disaster warnings. Page A3.

■ **FINDERS:** Workers say vial was out of place. Page A3.

At that point, scientists would decide whether to use tongs to take off the vial's lid to flood the plastic bottle. The vial was expected to be scrutinized before being removed from the radioactive contaminated building.

The object of concern is 2 ounces of a powder suspected to be picric acid that was found Wednesday afternoon in a vial within Building 327 just north of Richland.

Picric acid is a relatively common acid used to etch metals or break chemicals into their components for study.

In liquid form, it is no more dangerous than most acids. As a dry powder, it is "shock sensitive" — meaning it could explode when struck or jostled. The military sometimes uses it to detonate less-sensitive explosives.

Consequently, because the building contained radioactive material, the discovery caused Hanford to evacuate the 300 Area on Wednesday and to proceed cautiously. Except for about 30 Building 327 workers who went elsewhere, the rest of Hanford's work force returned to their buildings Thursday.

Officials believe 2 ounces of picric acid is more likely to burn than explode. If the vial explodes, it would be with the force of a big firecracker.

The vial's volatility caused Hanford officials and chemists to plan slowly and carefully.

"We're just being very deliberate so we don't make any mistakes," said Jim Steffen, B&W Hanford's manager for fuel fabrication operations.

Julie Erickson, the Department

of Energy's deputy assistant manager for science and technology, said: "You need to look at all the contingencies that could happen."

Before chemists went into the crawl space Thursday evening, they practiced on a mockup.

Then they entered the crawl space at 9:30 p.m. and used tongs to put the vial into a bucket of water.

The plan is to let the water seep through any flaw in the vial's seal and immerse the powdered acid in water. After that vial is "neutralized," it was to be removed and analyzed.

If this does not work, the backup plan is to remove the vial's lid. Another backup plan that was considered was to remove the vial from the building and put it in a bomb-disposal trailer.

Hanford officials said Thursday that they do not know how the vial ended up in the crawl space, which workers entered to inspect steam pipes.

Building 327 is in the middle of the 300 Area. Its function has been to examine nuclear fuel rods and casings. Hanford is shutting part of it down.

However, chips and pieces of spent nuclear fuel from the K Basins are stored under water in a basin separated from the crawl space by a 6- to 12-inch concrete wall. Hanford officials believe any explosion would not have seriously hurt that wall.

The rest of the radioactive materials, including cesium capsules, had long been removed from the

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Herald photos/Bob Brawdy

ABOVE: Crew leader Rich Howard describes Thursday how his crew discovered a small bottle of picric acid in a crawl space at Hanford's 327 Building. His decision to stop the work and notify managers of the potential danger led to Wednesday's evacuation of the 300 Area.

Co-worker Larry McDannel is at left. **BELOW:** A photo taken from a video shot by Hanford workers shows the bottle of picric acid in a bucket filled with paper towels that was discovered in a crawl space in the 327 Building.



1-30-98

Little vial stirs big reaction

By JOHN STANG
Herald staff writer

The words "picric acid" were handwritten on the vial. A powder was inside. Crew leader Rich Howard didn't know what picric acid was. But he and his crew knew it did not belong in the dark, rocky chamber beneath Hanford's Building 327. "It didn't dawn on me that it was explosive at that time. I looked at it as an acid, and it was not in a form I expected. It was not labeled properly. So it had no business in this place," said Howard, a B&W Hanford employee. Wednesday began as a routine job for the five-person crew of Fluor Daniel and B&W workers. But their discovery led to the 300 Area being evacuated while giving Tri-Citians the jitters. The job was to check out steam pipes in a "crawl space" under the 327 Building before steam was put into them.

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TRI-CITY HERALD

SATURDAY, JANUARY 31, 1998

Hanford lab confirms picric acid was in vial

By JOHN STANG
Herald staff writer

Hanford firefighters finished neutralizing and removing of a vial of potentially explosive picric acid found at Hanford lab without a hitch Friday morning. The team of two dissolved the two ounces of powder in a gallon of water, and the solution was sent to lab at central Hanford, where tests Friday confirmed the substance was picric acid. A work crew discovered the vial in a pail Wednesday afternoon in a crawl space under a research building in Hanford's 300 Area

while inspecting steam pipes. Hanford officials have not figured out how the acid ended up in the slightly contaminated, crawl space next to a basement. "There was no good reason for it to be there," said Steve Norton B&W Hanford's facility manager for the 327 Building, a lab used to analyze radioactive substances. While picric acid is normally in a stable liquid form, it is potentially explosive when dry. That prompted Hanford officials to evacuate the 300 Area on Wednesday, and to keep people out of the 327 Building on Thursday. All restrictions were lifted Friday. Two ounces of picric acid crystals could burn or explode with the force of a big fire-

cracker if jostled or struck. The potential hazard prompted careful planning and practice before a crew attempted the job. By Thursday afternoon, a team had been assembled from Fluor Daniel, B&W Hanford, Waste Management of Hanford, DynCorp Tri-Cities Services Inc. and the Department of Energy. At about 9 p.m. Thursday, two Hanford firefighters in protective clothes, masks and air packs entered the crawl space through a 3-foot-square opening. Two other firefighters waited just outside the crawl space to help if needed. The firefighters used tongs to lift the vial out of the dry pail and put it in a bucket of

warm tap water. The warm water was supposed to heat the vial, then as the vial cooled, air trapped aside would contract and draw water through any crack in the bottle or lid. They left the chamber and waited a half hour, then returned and used tongs to gingerly remove the submerged bottle's top, flooding the vial with water. Martin said the firefighters described "little wispy type of fumes on top of the water." The power looked like "wet sugar." The firefighters left the chamber to discuss the fumes with chemists and other experts. About 1:30 a.m. Friday, they returned and poured the bucket's liquid into a special 15-gallon jug.

By then, the powder had dissolved. The jug was put into a chemical storage site in the building before being taken to a lab later Friday morning. The crawl place was checked for chemical fumes later Friday, but none was found. Jim Steffen, the B&W official in charge of the recovery, said all the workers performed flawlessly from the initial discovery Wednesday through the recovery efforts ending Friday. "We worked a long time and worked well together," he said. ■ Reporter John Stang can be reached at 582-1517 or via e-mail at jstang@tri-cityherald.com

2-3-98

Hanford cleanup budget up \$52 million

By John Stang and Les Blumenthal
Herald staff writers

Hanford's proposed fiscal 1999 budget would provide more money for cleanup but not enough to meet all legal obligations. Hanford's overall budget — including cleanup, a tank waste set-aside fund and noncleanup money — is proposed to rise 19 percent next year, from \$1.523 billion to \$1.81 billion. And the bulk of that — its

cleanup budget — could rise by \$52 million to \$1.114 billion. "It provides the stability we need to keep the cleanup programs on track," said U.S. Rep. Doc Hastings, R-Wash. The Clinton administration's proposal for fiscal 1999, which runs from Oct. 1, 1998, to Sept. 30, 1999, would provide \$1.114 billion for Hanford cleanup. That's \$21 million more than this year's

cleanup budget of \$1.093 billion, but even more money would be available for cleanup because of a paperwork change. The \$31 million budgeted to maintain the Fast Flux Test Facility would no longer come out of the cleanup budget next year — providing \$52 million more for cleanup. Despite the proposed increase, Hanford still would not have enough money to live up to its legal obligations for cleanup as set

by the Tri-Party Agreement — which is DOE's legal pact with Washington state and the U.S. Environmental Protection Agency setting Hanford's cleanup schedule. For 1998, DOE figures it lacks \$42 million to meet all Hanford Tri-Party Agreement obligations. The shortfall for 1999 could be even more, perhaps \$47 million. "This is a very aggressive proposal," John Wagoner, the Department of Energy's Han-

ford manager, said Monday. The budget is part of the nation's first proposed balanced budget since the 1960s, so money is tight. Overall, DOE is requesting \$18 billion for its programs nationwide, compared with \$16.5 billion received in 1998. Of that, DOE wants \$6.6 billion for environmental programs in 1999, compared

See **Hanford**, Page A2

FFTF to stay on hot standby

By LES BLUMENTHAL

Herald Washington, D.C., bureau

WASHINGTON — The Clinton administration has decided to maintain the Fast Flux Test Facility on "hot standby" but is further delaying any decision on whether to complete an environmental impact study required for possible restart of the experimental reactor, sources said Friday.

The recommendation will be included in the administration's proposed budget for the next fiscal year due for release Monday, said sources within Congress and close to the Department of Energy.

The budget also is expected to contain a "slight" increase in cleanup funding for Hanford in fiscal 1999, the sources said. In fiscal 1998, DOE is spending almost \$1.1 billion on the cleanup of radioactive and chemical wastes left from 50 years of plutonium production at the site.

However, mixed signals exist in the Northwest on whether the environmental study will be delayed, and on whether a continuing "hot standby" status for another year is good news for the reactor.

Some of the reactor's supporters believe an environmental impact study is in the foreseeable future.

DOE has said in the past that it will make a final decision on the future of FFTF sometime

this year. But if a decision is delayed on whether to study restart, DOE will be ignoring Congress, which last year said it wanted a final decision on the future of the reactor in the budget proposal the administration is due to release Monday.

"The department is well aware of that, but Congress will be mad no matter what DOE does," said one source in Washington, D.C.

The department is currently studying whether to build a linear accelerator or convert an existing commercial light-water reactor to produce tritium for the nation's stockpile of nuclear weapons.

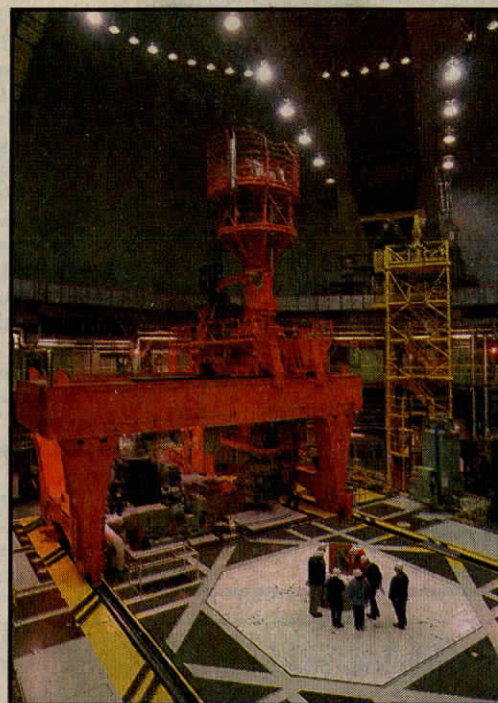
If the department decides to build an accelerator, it will be built at its Savannah River complex in South Carolina.

One scenario calls for using FFTF as a temporary source of tritium — which boosts the explosive power of atomic bombs — until an accelerator could be built or a light-water reactor converted to tritium production.

FFTF backers believe that after that temporary tritium mission ends, production of medical isotopes will have grown enough to support continued operation of the reactor.

South Carolina's powerful congressional delegation, led by Republican Sen. Strom Thurmond, has opposed using FFTF on even a temporary basis to produce tritium.

Two key Northwest players with opposing views on reviving the reactor agree delaying



Herald/Bob Brawdy

A recent tour group stands in the middle of the reactor core building at Hanford's Fast Flux Test Facility.

the environmental impact study hurts both sides.

Please see FFTF, Page A2 ▶

Teams say DOE request for Hanford funds enough

By JOHN STANG

Herald staff writer

The Department of Energy's request that Congress set aside \$330 million in 1999 to help pay for treating Hanford's tank waste appears adequate, said officials from the two corporate teams involved.

The \$330 million is enough to cover the expenses of at least one of the two teams led by BNFL and Lockheed Martin Advanced Environmental Systems, agreed BNFL Inc. President Thomas Crimmins Jr. and Lockheed spokeswoman Diane Knippel.

Both teams are keeping their financial packages close to their vests — at least through May when DOE decides whether to give the green light to one or both teams.

So, no one is sure if \$330 million is enough to keep both teams on track in fiscal 1999, Crimmins and Knippel said.

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TRI-CITY HERALD

THURSDAY, FEBRUARY 5, 1998

METRO/NORTHWEST

Moratorium on moving PFP plutonium may come to end

By John Stang

Herald staff writer

Thirteen months after Hanford officials imposed a moratorium on moving plutonium within the Plutonium Finishing Plant, they hope they are close to ending it.

Safety concerns led B&W Hanford to stop moving scrap plutonium within the PFP on Dec. 31, 1996. A combination of events and problems — mostly relating to training and procedures — have kept the moratorium in place.

Within a couple weeks, DOE plans to conduct a 10-day series of reviews and tests to see if the moratorium should be lifted.

Meanwhile, the combination of the moratorium and budget cuts appears likely to

put removal of scrap plutonium from PFP up to a year behind schedule.

The PFP holds four metric tons of Hanford's 11 metric tons of plutonium. The rest is in spent nuclear fuel in the K Basins.

Most is in a PFP vault, with the rest scattered among the 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.

When B&W, a Fluor Daniel subcontractor, took over the PFP in late 1996, it was not comfortable with procedures and training inherited from Westinghouse Hanford Co., the previous contractor, and imposed the moratorium.

Last May's chemical tank explosion at PFP distracted B&W and Fluor from the overhaul. And the explosion produced two DOE reports outlining more problems. Meanwhile, a Fluor review board looked at the PFP and came up with its own list of fix-it work.

Absorbing the reports, analyzing the problems, changing procedures and conducting training took a lot of time, said Lawrence Olguin, Fluor's project director for PFP.

Although plutonium could not be moved for most purposes, it could be moved to check the inventory for safety reasons. B&W was ready for DOE to check out its procedures in November when a "criticality" incident occurred during an inven-

tory move. A "criticality" does not mean a radiation release but procedural problems that could lead to a release of radiation.

In this case, a can of plutonium scrap was mislabeled in 1983 and showed up in November when PFP workers were supposed to be dealing with a different type of scrap.

That led to workers spotting three more similar problems in the following weeks — actions B&W President Bill Heer finds encouraging. The November incident caused DOE to bring in an outside expert.

The expert concluded the procedures were too cumbersome when compared with similar facilities at other DOE sites, said Pete Knollmeyer, DOE's assistant manager for facility transition.

The cumbersome procedures date from the 1970s, with more and more procedures being added on without any old ones being eliminated, said Fred Crawford, B&W's senior director for PFP.

B&W and Fluor hope DOE's pending review will end the year of delays.

Existing PFP deadlines, set by the Defensive Nuclear Facilities Safety Board, aimed to have the PFP's plutonium turned to powder by May 1999. That likely will lapse to May 2000, Knollmeyer said.

Also, the PFP's plutonium was supposed to be ready to ship out by May 2002. DOE believes that deadline might have to be delayed eight to 12 months.

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

Battelle donates \$50,000 to cancer center

By the Herald staff

A campaign to raise \$300,000 for the Tri-Cities Cancer Center this year is off to a fast start with a \$50,000 donation Wednesday from Battelle, which operates Pacific Northwest National Laboratory in Richland.

The company pledged \$25,000 for this year, and then an additional \$25,000 over the next two years.

The center wants to raise \$300,000 in each of the next five years to help pay for a \$3 million expansion project and bring new programs to the center.

The plans are a good fit with PNNL, said Bill Madia, director of the laboratory. It's working with medical isotopes to find new ways to treat cancer and through Advanced Diagnostics Inc. is looking at new imaging techniques to detect breast cancer.

The laboratory also is working with the cancer center to develop new communication systems to educate and exchange information with the community, including people who can be difficult to reach.

That includes people who live in small towns, minorities and busy, well-educated professionals, said Dr. Thomas Rado, medical director of the cancer center.

The expansion project, already under construction, will add 15,000 square feet to the center. The space will be used first to add chemotherapy or drug treatment — now the center offers only radiation therapy.

Other space, which will not be finished immediately, will be used for a women's health center to diagnose and treat, or coordinate treatment of, breast cancer.

Much of the advancement in treating breast cancer has come from early diagnosis, Rado said.

The new women's center will work to teach women about the need for screening, he said. It also will offer delicate, computer-guided biopsies done with needles to eliminate the scarring caused by more invasive surgical biopsies.

The cancer center fund-raising drive, led by Jack and Wanda Briggs, longtime Tri-City Herald employees who recently retired, also has collected a \$10,000 pledge from the Tri-City Herald. The drive started Monday.

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TRI-CITY HERALD

FRIDAY, FEBRUARY 6, 1998

METRO/NORTHWEST

Ecology chief to mull penalty for missed Hanford deadline

By John Stang

Herald staff writer

SEATTLE — The director of the Washington Department of Ecology is expected to decide later this month if the federal government should be penalized for missing a deadline on pumping out some Hanford tanks.

Ecology Director Tom Fitzsimmons will have to decide whether the missed deadline is justified.

The upcoming decision was mentioned at Thursday's Hanford Advisory Board in Seattle during discussions of delays in tank waste programs.

Meanwhile, DOE is looking into getting an extra \$15 million this year to pump out two more tanks and do additional studies on the vadose zone — the earth between the tanks and ground water aquifer.

The missed deadline is part of the Tri-Party Agreement, the legal pact under

which the ecology department and the U.S. Environmental Protection Agency regulate the Department of Energy at Hanford.

Under the Tri-Party Agreement, Hanford was supposed to begin pumping liquid wastes out of six single-shell tanks in fiscal 1997. Hanford actually has begun pumping four of those tanks.

Hanford has 54 million gallons of radioactive wastes in 177 underground tanks, of which at least 67 are suspected of leaking in the past.

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

So far, liquids in 119 tanks have been pumped out. Three are currently being pumped. And DOE expects to begin pumping two more this year, instead of the 17 required by the Tri-Party Agreement.

The 125th tank, which is the final suspected leaker, is expected to be pumped out

in fiscal 1999, which starts in October 1998.

Suzanne Dahl, the ecology department's tank program manager, noted years ago that DOE expected to have pumped out all the single-shell tanks by 1995. That was delayed to the current Tri-Party Agreement deadline of 2000.

Now the state and DOE believe the completion of single-shell tank pumping could be delayed another three to five years, Dahl said.

DOE is approaching the state about renegotiating the deadline, DOE officials said.

The state does not want to renegotiate that deadline, Dahl said.

The delayed 1997 pumping was because of safety questions raised about the possibility of inflammable gas in almost all of Hanford's tanks, said Carolyn Haas, DOE's planning manager for the tank farm's management systems division.

The inflammable gas problem and

budget constraints have delayed the pumping of most of the tanks originally earmarked for 1998.

Meanwhile, DOE's Washington, D.C., headquarters is trying to persuade the federal Office of Management and Budget to appropriate and extra \$15 million to Hanford's tank farms in fiscal 1998, which is the current fiscal year, said Jackson Kinzer, DOE's tank farms manager.

The \$15 million could pay for pumping out two more tanks and for additional studies on how contaminants seep through the vadose zone under the tanks.

The Hanford Advisory Board spent Thursday discussing and being briefed on tank farm issues — mostly on generally how the tank farms function with discussions and debates usually taking place at the nuts-and-bolts level.

Fears were voiced about the history of the past decade of tank wastes fix-it programs

— such as converting the wastes to glass — being delayed.

Board member Todd Martin, staff researcher for the watchdog organization Hanford Education Action League, said Hanford's history of technical delays combined with Congress's reluctance to fund Hanford programs will stall the two privatized ventures to glassify the tank wastes. DOE is currently evaluating those proposals with Congress expected to look them over in late spring.

By late spring, Hanford's best-case scenario calls for those two ventures to get a federal green light to build and begin operating glassification plants by 2002.

Martin told the board: "We're going to be sitting in a room like this six months to one year from now. ... And someone is going to tell us the project is being delayed."

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Richland meeting about Hanford preservation

The Department of Energy will hold a public meeting at 7 p.m. today at the Richland library to get opinions on which buildings in the 300 area should be given consideration for historic preservation.

The library is at 955 Northgate Drive.

2-11-98

Senate candidate visits Hanford



Herald/Cary Best

U.S. Rep. Linda Smith, a 1998 Senate candidate, asks Al Farabee, Fast Flux Test Facility program manager for the Department of Energy, about operating procedures Tuesday inside the containment building of the FFTF during her first visit to Hanford.

Rep. Linda Smith tackles medical isotope issue

By John Stang
Herald staff writer

Senate candidate Linda Smith suggests the National Institutes of Health could be brought into the Fast Flux Test Facility debate to scope out what the nation's future medical isotope needs are.

U.S. Rep. Smith, R-Wash., picked up interests in the medical isotopes issue and in the NIH by being a member of Congress' bipartisan women's health caucus. Smith contended an overall picture of the nation's medical isotopes requirements should be done to make sure some needs don't fall between the cracks.

"I believe the medical isotopes issue is much bigger than we realize," said Smith, who lives near Vancouver, Wash.

While she has visited Hanford as a state legislator, Tuesday marked her first time since deciding to run for congresswoman. Smith is contending for the Republican nomination for senator, hoping to face incumbent U.S. Sen. Patty Murray, D-Wash.

On many issues, Smith and Murray are split along classic conservative and liberal lines.

However, most — but not all — Hanford issues usually gather bipartisan regional support.

Murray has been very active in shepherding Hanford's budget through Congress, supporting plans to turn radioactive wastes into glass under privatized contracts, calling for long-term Hanford budget planning beyond Congress's year-by-year approach, pushing for medical monitoring funds for downwinders and tackling some Hanford worker issues.

Smith's stances on these issues mirror Murray's.

"I believe the medical isotopes issue is much bigger than we realize."

U.S. Rep. Linda Smith, R-Wash.

Murray is a liberal member of the Senate's minority party. And Murray's critics often paint her as a weak voice in Congress.

Meanwhile, conservative Smith has opposed the House's Republican leaders on several issues, including campaign finance reform, and has gained a reputation as a loose cannon who grates on her party's leadership.

On Tuesday, to illustrate her ability to nurture something like a Hanford budget through Congress, Smith contended she has forged successful bipartisan coalitions on campaign finance reform and other issues.

And Smith said her Southwestern Washington district has several projects requiring Congressional appropriations. "I have not lost one project in three years," she said.

Two Hanford issues do provoke vehement political splits. Murray and Smith agree on one and disagree on the other.

The women agree on the proposed revival of the dormant FFTF to fill an interim or backup tritium production role while phasing in a long-term isotopes mission.

The Northwest is split on this plan, mainly because tritium boosts the explosive power of atomic bombs.

Meanwhile, a major battle is under way between Washington state's pro-FFTF congressional members and the South's anti-FFTF congressional delegation.

While the FFTF is being considered as a backup or interim tritium source, the primary tritium sources being studied are building an accelerator in South Carolina or modifying a commercial reactor in the South.

But Southern political leaders, especially South Carolinians, see the FFTF as a Johnny-come-lately proposal trying to cancel out the reactor and accelerator plans.

Smith noted a key event in the FFTF's future comes up in April. That's when the Senate's Armed Services Committee, chaired by U.S. Sen. Strom Thurmond, R-S.C., will hold hearings on whether the United States should lift its legal ban on using commercial reactors for military purposes — such as producing tritium.

If those hearings — chaired by a senator in a state hoping that an accelerator will be the first choice — lead to the ban remaining, that will eliminate a commercial reactor as an option. That would leave the accelerator as the first choice and the FFTF as the potential backup.

Meanwhile, Murray and Smith are split on another Hanford controversy — who will control the Hanford Reach.

Murray is sponsoring a bill to put the Reach under federal control with local input. Smith backs Republican U.S. Rep. Doc Hastings' bill to create a joint local-state-federal stewardship of the Reach with local governments in command.

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