

# Agency challenges Hanford as N-waste site

by Hill Williams  
Times science reporter

(1) The Hanford Nuclear Reservation's suitability as the nation's first nuclear-waste burial ground has been challenged by the Nuclear Regulatory Commission.

(2) The NRC, which is responsible for licensing any repository, is questioning the federal Department of Energy's conclusion that radioactive wastes could be safely isolated from the environment at the Hanford site.

The NRC, in a new report, says some staff estimates show ground(3)

water could carry radioactive wastes into the surrounding environment in as little as 1,000 years. The government requires wastes to be safely stored for 10,000 years.

An earlier study by the federal Department of Energy concluded the wastes could be safely stored at the site for as long as 81,000 years.

The NRC report also says the Eastern Washington site was not treated equitably in the DOE's evaluation of flood potential, that the earthquake hazard at Hanford may be underestimated and that available technology may not be

## Inside

■ The state has threatened the Hanford reservation with \$10,000-a-day fines for dumping chemicals. B 9.

adequate for drilling.

The NRC report was in response to the Department of Energy's draft environmental assess-

ment of nine proposed sites the department is studying.

That assessment put Hanford among the top three candidates for becoming the repository for 77,000 tons of radioactive waste from nuclear-power plants.

The DOE is required to consider the NRC's comments, along with those from other government agencies and affected states, when it makes its final report. That report is due late this summer.

The DOE assessment said the best preliminary estimate of the "travel time" of contaminated water from the repository to the

environment is 81,000 years — well beyond the federal requirement that the waste be contained for 10,000 years.

But the NRC said its staff demonstrated that "reasonable interpretations" of the same data could reach "substantially lower estimates." Some of those estimates are shorter than 1,000 years.

Groundwater has been the most troubling problem facing the Department of Energy's study at Hanford.

Over the years, Hanford plants have dumped billions of gallons of waste water into the soil. The NRC

says there are indications that this "artificial recharge" of groundwater is increasing pressure in water that is trapped far underground, in the layers of rock proposed for the waste repository.

(4) That greater pressure may significantly increase the speed at which waste-contaminated water could be pushed toward the surface, the NRC report suggested.

Another complicating factor, the NRC said, is that the waste itself will be hot. This will heat

Please see **HANFORD** on A 6

8506060242 850503  
PDR WASTE  
WM-10 PDR

FAIRVIEW AVENUE NORTH AND JOHN STREET  
POST OFFICE BOX 70  
SEATTLE WASHINGTON 98111

# The Seattle Times

April 4, 1985

Dear Friend:

We at The Seattle Times would like to know how close we're coming to our target in our quest for accurate and fair reporting.

In our hurry to get your Seattle Times to you promptly, seven days a week, 52 weeks a year, we're likely to err once in a while. With your help we can find out if we made a mistake in this story. We'll use your suggestions to reduce our errors in the future.

Please indicate below whether we missed or hit the target; then return the form in the stamped envelope enclosed.

Sincerely,

*Lane Smith*

Ombudsman

Lane Smith

*James B. King*

Editor

James B. King

From The Seattle Times of 4-4-85

Please do not remove this clipping

## Waste report challenged

### HANFORD

continued from Page 1

groundwater in the surrounding rock, causing a tendency to rise, further affecting the water's movement.

The NRC's point about surface discharges affecting pressure in deeply buried aquifers will be controversial.

The DOE and scientists with its contractor, the Rockwell Hanford Co., maintain that surface groundwater, which flows toward the Columbia River, and the deeply buried sources of water are not connected.

The NRC said the points it is raising were either considered and dismissed as unimportant or were not mentioned in the DOE's report.

Other points in the NRC's criticism:

■ The nine sites considered by the DOE were "not treated equitably" in one part of the evaluation, and Hanford was one of the sites on the short end. The DOE's investigations revealed that seven of the nine sites could be subject to surface flooding. At four of them, that possibility was considered a disqualifying factor. But the three others, including Hanford, were not disqualified because flood protection could be provided.

"We note that engineering measures ... can be used to protect almost any site from almost any flood," the NRC's report said. It suggested that the DOE apply that guideline consistently to all sites.

■ The NRC disputed the "generally favorable" view of earthquake hazard in the DOE report. It pointed out that an extension of a fault known to be capable of earthquakes of magnitude 6.5 could be "postulated" to pass within a mile of the Hanford proposed

1. Are the facts in this story correct? \_\_\_\_\_

2. If not, please make a note of all errors \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Are the names and other related information correct? \_\_\_\_\_

4. If not, what are the corrections? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Is the headline correct? \_\_\_\_\_

6. If not, what is the error? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Is the story fair? \_\_\_\_\_

8. If not, why not? \_\_\_\_\_

9. Which type of news or features do you find most interesting or helpful?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(You are welcome to use the reverse side or a separate letter for additional replies.)

Signed, \_\_\_\_\_

Address \_\_\_\_\_

on the short end. The DOE's investigations revealed that seven of the nine sites could be subject to surface flooding. At four of them, that possibility was considered a disqualifying factor. But the three others, including Hanford, were not disqualified because flood protection could be provided.

"We note that engineering measures ... can be used to protect almost any site from almost any flood," the NRC's report said. It suggested that the DOE apply that guideline consistently to all sites.

■ The NRC disputed the "generally favorable" view of earthquake hazard in the DOE report. It pointed out that an extension of a fault known to be capable of earthquakes of magnitude 6.5 could be "postulated" to pass within a mile of the Hanford proposed repository. And it said that, judging from similar formations elsewhere in the Columbia Basin, faults could be expected in the rock proposed for the repository. Earthquakes would not pose much danger to a repository, but could change groundwater travel routes and speeds.

■ The NRC questioned whether Hanford meets another of the DOE's guidelines, that the construction could be accomplished with "reasonably available technology." The DOE proposes to drill a 15-foot-wide shaft with a technique known as "blind-hole drilling," where the hole would be drilled with a huge augur-like rig. Conventional mining methods would use blasting to sink the hole.

The NRC staff pointed out that blind-hole drilling has never been used on a shaft that big or tried in rock conditions like those at Hanford. In fact, the criticism said, a project using the technique once was stopped far short of the projected depth because the equipment failed.