

OCT 18 2001

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7 MR. POLLET: You bet. My name is Gerald,
8 G-e-r-a-l-d, Pollet, P-o-l-l-e-t. I am general counsel
9 and executive director of Heart, H-e-a-r-t, of America,
10 Northwest, which is the Pacific Northwest's largest
11 citizens watchdog group working for the cleanup of the
12 Hanford Nuclear Reservation, and we have a
13 long-standing deep-seated interest in the repository
14 stemming from the potential for standards used for the
15 repository to be utilized in the future at Hanford,
16 also stemming from the fact that Hanford was one of the
17 three potential sites.

18 My organization and I as an individual were
19 deeply involved in the effort to ensure that Hanford
20 was removed from consideration under the Nuclear Waste
21 Policy Act Amendments in 1987, following a state-wide
22 ballot referendum in Washington State, which I
23 authored.

24 Hanford has two thirds of the nation's
25 defense high-level nuclear waste, which is destined for

0010

1 a national repository or repositories. That waste sits
2 in liquid form in leaking, potentially flammable and
3 explosive tanks and is decades away from being

4 vitrified.

5 Nonetheless, I'm here today because the
6 people of the Pacific Northwest have repeatedly said
7 that Yucca Mountain is an unacceptable proposal for
8 shipping Hanford's high-level nuclear waste after
9 vitrification.

10 Since the early 1990s, the regional advisory
11 boards put together with official authorization and
12 approval of the Department of Energy have each in turn
13 stated that is it ill-advised for the Department of
14 Energy to plan on moving Hanford's vitrified high-level
15 nuclear waste to the Yucca Mountain repository, and the
16 Department of Energy should cease all planning that
17 incorporates that assumption.

18 I'm going to talk a little bit about the
19 implications of that and the failure to consider the
20 consequences of this in the preliminary site
21 recommendation, as well as the final EIS, which is yet
22 to be released.

23 Before I go into those technical comments,
24 for the record, Heart of America Northwest has 16,000
25 family members and we work in close concert with

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1 numerous other Hanford public interest groups and

2 represent tens of thousands of additional citizen, and
3 we are dismayed that the Department of Energy chose not
4 to hold any hearings on this important decision in the
5 Pacific Northwest because it does affect us directly,
6 and we have quite a bit to say about it.

7 The people of the State of Nevada have been
8 told repeatedly that other Department of Energy sites
9 such as Hanford are eager to have their waste sent
10 here. The Department of Energy may be eager, but the
11 people of the Pacific Northwest are not, and have gone
12 on record saying so.

13 There are many significant issues that bear
14 directly on the site recommendation that, had there
15 been proper notice, proper mailing of the materials and
16 proper access to the materials, would have generated
17 numerous well-informed comments in the Pacific
18 Northwest regarding the suitability of Yucca Mountain
19 in particular regards to its ability to contain waste
20 from the Hanford Nuclear Reservation and in regard to
21 models used and the standards and how they are applied
22 in the preliminary site recommendation report and the
23 implications for all other DOE sites.

24 I'd like to make sure that the Department of
25 Energy has in its records the advice of the Hanford

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1 Tank Waste Tax Force convened by the Department of
2 Energy. This is readily accessible to you and I don't
3 need to provide it, but it has extensive advice which
4 represents a consensus of the stakeholders of the
5 Pacific Northwest from the states of Oregon and
6 Washington, stakeholders selected by the U.S.
7 Department of Energy, EPA and Washington Department of
8 Ecology, and that consensus was that the Department of
9 Energy should not plan on moving high-level waste from
10 Hanford to Yucca Mountain, but should rather be
11 planning and basing its plans specifically on the
12 assumption that the canisters of vitrified waste will
13 be stored at Hanford for the foreseeable future, and
14 that's a quote, explained as one or two generations.

15 And some of the implications of that include
16 the fact that the Department's ill-advised reliance on
17 an assumption that Hanford will ship waste has a direct
18 impact on the Department's decision to waste
19 1- to \$2 billion under its current contract with
20 Bechtel National, Inc., for the design and construction
21 of an advanced separations and pretreatment process and
22 facility for the vitrification of Hanford's high-level
23 nuclear wastes.

24 That advanced separation and pretreatment
25 facility is of a size and scale hither to unknown in
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1 the history of human kind. There is no nuclear
2 facility of this size in existence. It is a magnitude
3 greater in scale than the vitrification and
4 pretreatment facilities that operate in Europe and
5 magnitudes greater than the size and scale of the
6 facilities at Savannah River. And it is entirely
7 wasted money because assumptions driving that decision
8 are that we have to reduce the number of canisters
9 because we need to reduce the per -- we need to reduce
10 the total cost of disposal in Yucca Mountain for the
11 Department of Energy.

12 If none of those canisters are going to Yucca
13 Mountain, however, or if there is no Yucca Mountain and
14 they stay at Hanford, then we will have wasted billions
15 of dollars, created untold risks and caused significant
16 additional worker exposure and human health exposure
17 and environmental harm by constructing and operating
18 facilities that were not necessary and which delayed
19 the vitrification of Hanford's high-level liquid
20 nuclear wastes.

21 We do not think that is coincidence that

22 Bechtel was responsible for many of the decisions
23 leading up to the preliminary site recommendation, and
24 Bechtel stands to profit handsomely from building an
25 unnecessary pretreatment facility at Hanford.

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1 The Hanford High-level Nuclear Waste
2 Vitrification Plant is the nation's largest public
3 works project. It makes Yucca Mountain look small,
4 even though it's hard to believe after the billions
5 we've spent at Yucca already, and putting that in
6 perspective right now we are talking about a capital
7 cost in the four-and-a-half-billion-dollar range for
8 Hanford's vitrification plants that are sized and scale
9 the initial plants to only treat 10 percent of
10 Hanford's high-level nuclear waste by the year 2018.

11 The standards utilized under 40-CFR-197 have
12 improperly been applied in the preliminary site report
13 by not using what is the reasonably foreseeable maximum
14 exposed individual in the Amargosa Valley.

15 For the record, we believe that it is
16 inappropriate to utilize any standard that does not
17 consider the reasonable maximum exposed individual,
18 wherever that individual may be reasonably forecasted
19 to get that exposure rather than having an arbitrary 20

20 kilometer line at which their exposure is evaluated.

21 Nonetheless, even at the 20 kilometer line, the risk

22 assessment utilized fails to truly consider a

23 reasonable maximum exposed individual.

24 The assumptions used are not easily available

25 for the public and the Department has not made them

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1 available to us in the Pacific Northwest to review

2 fully, but it is clear that the maximum exposed

3 individual choice ignores the projection of future use

4 by both Native American populations and dairy farmers

5 and dependent families in the river valley.

6 The assumptions of two liters of well water

7 are inappropriate for a Native American scenario. It

8 is well established, and the DOE has acknowledged such

9 at other Department of Energy sites for risk assessment

10 purposes, as has EPA.

11 The non-native scenario ignores concentration

12 via milk and concentration based on the fact that it is

13 likely that the current pattern of the dairy farm that

14 grows all of the feed for its dairy cows uses water at

15 the point of exposure, and the reasonably maximum

16 exposed individual is drinking water, is of course

17 bathing in it, which is considered, but the

18 concentration factors are not considered nor is the
19 fact that in fact current development pressures are
20 likely to cause a substantial decrease in the distance
21 of future farming near Yucca Mountain.

22 Twenty kilometers away is not a realistic
23 assumption. The fact of the matter is that it is quite
24 likely that current farmers would seek to be closer to
25 the main road and to the Nevada Test Site, Route 95,
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1 under any normal pattern of geographic expansion and
2 economic projection.

3 The preliminary site recommendation fails to
4 consider the cumulative impactive dose from flow off of
5 the Nevada Test Site as well. We believe that the
6 Department of Energy is failing to meet several legal
7 requirements by failing to consider this.

8 The flow from the Nevada Test Site is, of
9 course, going to be in the same direction. By not
10 awaiting a final environmental impact statement, which
11 is legally required to consider cumulative impacts from
12 all DOE operations in current, past and future at the
13 Nevada Test Site, including Yucca Mountain and other
14 operations at the test site, the site evaluation is, in
15 fact, legally flawed as well.

16 The site evaluation could not -- in
17 recommendation could not be done prior to a final
18 environmental impact statement. A final environmental
19 impact statement should have been used to inform the
20 public, the State of Nevada and the Department of
21 Energy on the cumulative impacts of all groundwater
22 flow off of the Nevada Test Site.

23 Currently the Department of Energy fails to
24 perform legally adequate and required groundwater
25 monitoring around even its currently operating

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1 low-level burial grounds at the test site.

2 There is no realistic model and projection
3 done by the Department regarding total cumulative dose
4 over 10,000 yard horizon for migration from the test
5 site. However, it is legally required for the
6 Department of Energy to consider that cumulative dose
7 in a final EIS, and then to consider it in the site
8 evaluation and recommendation.

9 By putting the cart before the horse, the
10 Department has attempted to cut off essential
11 information for determining what the total impact is on
12 human health. The .1 milligram per year maximum dose,
13 as I said, is based upon this risk assessment that

14 fails to consider the reasonable maximum exposed
15 individual, critical subgroup that's required by NRC,
16 and total cumulative impacts which must be considered
17 under all the standards as a flow through requirement
18 from NEPA.

19 The precedent set by the Department of Energy
20 in failing to consider those cumulative impacts is very
21 significant in terms of health effects nationally. If
22 the Department of Energy can piecemeal this project in
23 terms of its impact assessment on human health, then it
24 will probably seek to continue piecemealing similar
25 decisions, not just repository decisions, but similar

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1 decisions that have cumulative impacts off site at
2 other Department of Energy sites, which is of course a
3 concern to those of us whose regional lifeblood is the
4 Columbia River.

5 I'd like to now move on to the issue of
6 improper or lack of proper consideration of the waste
7 package and metal fuels for defense wastes and other
8 wastes stored at the Hanford Nuclear Reservation.

9 The final design and performance criteria of
10 the waste package and its ability to be met at Hanford
11 has not yet occurred. There are spent fuels at

12 Hanford, including metal fuels and platings, that are
13 quite unlike of the commercial spent nuclear fuel
14 designs that have entirely different chemistries, react
15 to long-term heat and decay differently, have totally
16 different radionuclide inventory, will have a totally
17 different plutonium inventory, will have a very
18 different decay chart than the assumptions used in this
19 report. However, this report lithely writes all these
20 considerations off and relies on Bechtel references to
21 say that defense wastes will meet and have been modeled
22 for a performance criteria.

23 Is it interesting to know that the packaging,
24 and even the fuels that are not going to be packaged in
25 terms of the fit plants at Hanford, do not have

0019

1 packaging designed or proper analyses, and yet to then
2 see Bechtel's references to testing and modeling on
3 typical defense waste packages, when there is no such
4 thing that has been designed.

5 This is a fatal flaw because it is quite
6 likely that some of the spent fuels for the
7 vitrification packages may have a totally different
8 performance, especially in regard to their final
9 product -- excuse me, final packaging than the

10 commercial spent nuclear fuels.

11 The site evaluation, recommendation and
12 references improperly cite and rely upon use of
13 administrative controls and other mechanisms that would
14 prevent early waste package failures. However, under
15 DOE's own risk guidance, a 100 percent probability
16 should be assigned to the likelihood of early waste
17 package failing given the fact that under similar
18 nuclear operations at Department of Energy facilities
19 we have experienced and continually experience well
20 failures and other packaging failure for similar
21 nuclear operations.

22 If we experience them under DOE's own risk
23 guidance, we are to assign a 100 percent probability of
24 their occurrence. We certainly know that
25 administrative controls fail, designs are not followed,
0020

1 and attempting to reduce from 100 percent probability
2 by relying on administrative controls when we know that
3 there's a history of failure of the administrative
4 controls under similar circumstances is a violation of
5 DOE's risk guidance.

6 Early packaging failure becomes very
7 important in terms of some of the Hanford wastes.

8 Again, we are talking about both spent fuels and
9 vitrification canisters that are unique and differ in
10 every radiological and chemical respect from the spent
11 fuels that most of the work has been performed by the
12 commercial spent fuel packaging.

13 We are very concerned that decisions are
14 being made at this point in time that Hanford's spent
15 fuels, cesium and strontian capsules included in all my
16 foregoing remarks, do not have a design package that
17 can be described for the sake of this report, and yet
18 we have statements in the report and even charts that
19 say here is the performance evaluation for the typical
20 defense product that is going into Yucca Mountain.

21 It is nothing more than a hypothetical based
22 upon a myth with no actual design or actual work
23 understanding potential of these various Hanford waste
24 forms to even utilize the packaging proposed.

25 Heart of America Northwest believes that the
0021

1 Department of Energy should withdraw the site
2 suitability evaluation. It needs to await the result
3 of a final environmental impact statement with hearings
4 around the United States since, as we are aware from
5 the draft, many of the things I've talked about today

6 are not properly covered in the final EIS, but there is
7 no excuse for putting this report out before a final
8 environmental impact statement, and the example of
9 cumulative impacts illustrates the necessity of
10 awaiting the final EIS before making a site evaluation
11 recommendation.

12 For the record, let me just give Heart of
13 America, Northwest's address. It is 1305 Fourth
14 Avenue, No. 208, Seattle, Washington, 98101. And we'd
15 like to ensure that a response to our comments is
16 specifically mailed to our organization. Thank you.