

BLUE RIBBON COMMISSION ON AMERICA'S
NUCLEAR FUTURE

+ + + + +

MEETING

+ + + + +

WEDNESDAY,
July 14, 2010

+ + + + +

The Committee convened at 1:30
p.m. in the Great Hall of the Three Rivers
Convention Center at 7016 West Grandridge
Boulevard, Kennewick, Washington, Lee Hamilton
and Brent Scowcroft, Co-Chairs, presiding.

MEMBERS PRESENT:

LEE HAMILTON, Chair
BRENT SCOWCROFT, Chair
VICKY A. BAILEY
ALBERT CARNESALE
PETE V. DOMENICI

CHUCK HAGEL
JONATHAN LASH
ALLISON MacFARLANE
RICHARD MESERVE
ERNIE MONIZ
PER PETERSON
JOHN ROWE

PHIL SHARP

ALSO PRESENT:

TIM FRAZIER, Designated Federal Official

DAVE BROCKMAN, DOE-RL

WARREN SPENCER, Confederated Tribes and

Bands of the Yakama Nation

BROOKLYN BAPTISTE, Nez Perce Tribe

STUART HARRIS, Confederated Tribes of

the Umatilla Indian Reservation

ALYSSA BUCK, Wanapum Tribe

KEN NILES, Oregon Department of Energy

SUSAN LECKBAND, Hanford Advisory Board

CARL ADRIAN, Tri-City Development

Council

GERALD POLLETT, Heart of America NW

SARAH MINKLER, Heart of America NW

VIC PARRISH, Energy Northwest

ELIZABETH SCHEELER, Office of US Senator

Jeff Merkley

AGENDA ITEM	PAGE
Opening remarks, Co-Chairs and Members.	4
DOE welcome, Dave Brockman.	11
Confederated Tribes and Bands of the Yakama Nation, Warren Spencer Jr..	13
Nez Perce Tribe, Brooklyn Baptiste.	21
Confederated Tribes of the Umatilla Indian Reservation, Stuart Harris.	40
Wanapum Tribe, Alyssa Buck.	56
Oregon DOE, Ken Niles	61
Hanford Advisory Board, Susan Leckband.	86
Tri-City Development Council, Carl Adrian	96
Heart of America Northwest, Gerald Pollett and Sarah Minkler108
Energy Northwest, Vic Parrish132
Office of US Senator Jeff Merkley, Elizabeth Scheeler.158
Adjourn162

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22

P-R-O-C-E-E-D-I-N-G-S

1:30 p.m.

MR. FRAZIER: If the Commissioners will take their seats? Thank you.

I will add a DOE Headquarters welcome to everyone and then turn it over to you, General, or Congressman Hamilton?

General Scowcroft. Thank you, sir.

CHAIR SCOWCROFT: Oh, you're done?

MR. FRAZIER: Yes.

CHAIR SCOWCROFT: Good afternoon and thank you, all, for coming to this meeting of the Blue Ribbon Commission on America's Nuclear Future.

This Commission was formed by the Secretary of Energy at the direction of the President. The purpose of the Commission is to conduct a comprehensive review of policies for managing the back end of the nuclear fuel cycle, and recommend a new plan. That's what we're working to do.

1 There are, of course, matters
2 related to the back end of the fuel cycle that
3 are currently pending before the Nuclear
4 Regulatory Commission and the DC Circuit Court
5 of Appeals. These matters relate to the
6 administration's decision to withdraw the
7 application for the proposed nuclear waste
8 repository at Yucca Mountain in Nevada.

9 Obviously, these proceedings are
10 important. But we cannot know at this time
11 how or when they will be resolved. It would
12 be inappropriate for the Commission to inject
13 itself into these pending proceedings, which
14 may continue well after the Commission
15 concludes its work.

16 Our task is to proceed with our
17 mandate and to make recommendations to the
18 Secretary of Energy. The scope of the
19 Commission's review will not change unless the
20 Secretary directs it to do so.

21 We would like to remind those with
22 us today that we are not a siting commission.

1 We should also point out that our Commission's
2 charter does not include the details of the
3 on-site cleanup activities at Hanford,
4 although we certainly recognize the importance
5 of this federal responsibility.

6 In keeping with the Commission
7 Charter, we decided to visit the Hanford site
8 because we believe we must hear from
9 communities with a substantial interest in
10 solving the waste problem as we conduct our
11 work.

12 We also knew that touring the site
13 would give us a valuable opportunity to see
14 firsthand a variety of facilities involved in
15 the treatment, packaging, and storage of used
16 fuel and high-level waste.

17 We will spend this afternoon and
18 part of tomorrow morning hearing from tribal
19 and local government officials, community
20 groups, and others about their views on the
21 matters before the Commission.

22 Tomorrow morning we will also hear

1 from the Governor of Washington and
2 representatives of Washington's congressional
3 delegation and Attorney General.

4 We recognize there are many other
5 individuals and organizations in this region
6 and across the country who care deeply about
7 the issues before this Commission. We, of
8 course, cannot hear from them during our
9 visit.

10 We look forward to hearing from
11 more people and groups going forward, and we
12 encourage anyone with an interest in our work
13 to submit written input to the Commission now
14 or at any point in the process. Your comments
15 will be posted on the Commission Web site and
16 will be made available to the full Commission.

17 CHAIR HAMILTON: Okay. Thank you,
18 Brent.

19 Good afternoon to everyone.

20 First, a word about our speakers.
21 We remind the speakers that they are to keep
22 to their formal presentation of 10 minutes or

1 less, and that the remainder of the allotted
2 time will be used for questions and discussion
3 with the Commission. Because of the full
4 schedule we have this afternoon, the Chairs
5 will be fairly strict in enforcing those time
6 limits.

7 We appreciate very much the time
8 and effort the speakers have put into their
9 presentations. We've received summaries, of
10 course, of those statements and the statements
11 themselves, and we look forward to their
12 comments this afternoon.

13 Secondly, with regard to
14 webcasting, we are webcasting this meeting as
15 we've done for all of our meetings. We want
16 people who aren't able to get to our meeting
17 locations to be able to follow our
18 proceedings. The video and transcript from
19 this and all Commission meetings will be
20 posted on the Commission website.

21 Next, a word about the
22 subcommittees. Those of you who have been

1 following the work of the Commission know that
2 we formed three subcommittees to aid in
3 completing the work of the Commission: the
4 Reactor and Fuel Cycle Technology
5 Subcommittee, headed by Pete Domenici and Per
6 Peterson; a Transportation and Storage
7 Subcommittee, headed by Richard Meserve and
8 Phil Sharp; and a Disposal Subcommittee headed
9 by Chuck Hagel and Jonathan Lash.

10 After tomorrow's remarks by
11 Governor Gregoire, we will ask the Co-Chairs
12 of each of the three subcommittees to provide
13 a brief update on their work to date.

14 Next, a word about public comment.
15 At the end of tomorrow's session, not today's,
16 we will hear from any member of the audience
17 who wishes to speak. We've allowed for an
18 extended public comment period at the end of
19 tomorrow's meeting, in recognition of the
20 number of people who have commented at our
21 prior meetings.

22 A sign-up sheet for the public

1 comment period will be available tomorrow
2 morning, starting at 8:00 a.m. and closing at
3 10:00 a.m. The amount of time allocated to
4 each speaker will depend, of course, on the
5 number of people who wish to speak.

6 Finally, let me just observe that
7 we are very pleased to have added two members
8 to the Commission staff since our last
9 meeting. Mary Woollen will serve as our
10 government and community liaison person.
11 Natalia Saraeva will serve as staff liaison to
12 the disposal subcommittee. This completes, we
13 believe, at this point the hiring of our core
14 staff.

15 With those administrative matters
16 aside, I'll open the floor up now for the
17 Commissioners to see if they have any
18 statements or comments that they wish to make
19 before we proceed with the afternoon program.

20 Are there any such comments?

21 If not, then we welcome to the
22 microphone Dave Brockman, who is the

1 Department of Energy, Richland manager.

2 Dave, thank you very much for
3 hosting our tour this morning. We appreciated
4 that greatly. We're pleased to hear from you
5 now.

6 MR. BROCKMAN: Thank you.

7 Mr. Co-Chairmen and the
8 Commission, I want to formally welcome you on
9 behalf of myself, Shirley Oringer, and the
10 rest of the Department of Energy here at
11 Hanford. We're pleased to have you here.

12 We were honored to be able to show
13 you a portion of the site this morning,
14 particularly as it involves the high-level
15 waste at the site, to give you firsthand
16 knowledge of the situation we're facing on the
17 site. We're pleased that you decided to visit
18 the site and give us a chance to have a very
19 good dialogue.

20 I was impressed with the
21 questions. I'll say I was stumped by some and
22 I have some look-ups. That's a positive

1 thing.

2 Finally, in the welcoming, I just
3 want to compliment you on the transparency and
4 the openness of your Commission. We offered
5 up 80 bus seats and they were gone in a very
6 short period of time. As you can see, the
7 room is filling up. It makes our job easy
8 when you're this open with everybody. We
9 really appreciate that.

10 Welcome again. Thank you.

11 CHAIR HAMILTON: Dave, thank you
12 very much.

13 We will begin now with our
14 speakers for the afternoon. The first will be
15 Warren Spencer, Yakama Nation Tribal Council.

16 Mr. Spencer, would you please come
17 forward?

18 May I point out to you that we
19 have a light system here? The green light
20 will come on when you begin. When you have 1
21 minute left from the 10 minutes, the yellow
22 light will appear. When that light appears,

1 we ask you to begin to wrap up your comments
2 so we can turn to questions.

3 Thank you very much for coming,
4 Mr. Spencer. We're pleased to have you. You
5 may begin.

6 MR. SPENCER: Thank you.

7 Good afternoon. Welcome,
8 everybody. I'm Warren Spencer Jr. with the
9 Yakama Nation Tribal Council. I serve as a
10 secretary of the Radioactive Hazardous Waste
11 Committee. I come before the Blue Ribbon
12 Commission on America's Nuclear Future of the
13 United States Department of Energy on behalf
14 of the Confederated Tribes and Bands of the
15 Yakama Nation.

16 I wish to thank the Commission for
17 the opportunity to make this presentation
18 regarding the management and disposal of high-
19 level radioactive waste and other hazardous
20 nuclear materials.

21 The purpose of my comments is to
22 address two main issues: the treaty rights of

1 the Yakama people with respect to the United
2 States Department of Energy's Hanford site;
3 and also, the trust responsibilities that the
4 Energy Department and this Commission have
5 federally recognized tribal governments, in
6 compliance with the treaties between Indian
7 tribes and the United States government.

8 Mr. Russell Jim, manager of the
9 Yakama Nation's Environmental Restoration and
10 Waste Management Program, will subsequently
11 address specific issues of concern to the
12 tribe in tomorrow's session regarding the
13 protection of the cultural resources and of
14 the environment, safety, and health of the
15 Yakama people.

16 On April 9, 2010 on behalf of
17 Yakama Nation, our own chairman, Harry
18 Smiskin, wrote President Obama and the Energy
19 Secretary Chu, issuing a formal request for
20 government to government consultation
21 regarding the decision of Council in the
22 United States Department of Energy's proposed

1 Yucca Mountain high-level radioactive waste
2 repository in Nevada.

3 This decision is a great concern
4 of the Yakama Nation in light of the growing
5 interest in expanding nuclear power, and the
6 toxic legacy of nuclear weapons production
7 affecting the health and safety of the Yakama
8 people and its cultural resources.

9 Specifically, the Yakama Nation's
10 treaty resources are impacted by the
11 radioactive waste generated by the Columbia
12 Generating Station nuclear power plant on the
13 Department of Energy's Hanford site from
14 profound contamination and enormous amounts of
15 high-level radioactive waste created by the
16 production of plutonium.

17 As President Obama noted in his
18 November 5, 2009 memorandum for the heads of
19 executive departments and the heads of federal
20 agencies, "History has shown the failure to
21 include the voices of tribal officials, and
22 formulating policies affecting their

1 communities has too often led to undesirable,
2 and at times, devastating and tragic results.
3 Consultation is a critical ingredient of a
4 sound and productive federal-tribal government
5 relationship."

6 Unfortunately, we have yet to
7 receive a response from President Obama and
8 the Secretary Chu to our request.

9 The Confederated Tribes and Bands
10 of Yakama Nation retain perpetual rights on
11 its reservation in the ceded lands of the
12 usual and custom places, pursuant to the
13 treaty of 1855 with the United States, 12
14 Stat. 957, done and dated June 9, 1855. The
15 Yakama Nation also reserves rights not
16 enumerated in the treaty and not divested by
17 the United States.

18 The Hanford Nuclear Reservation is
19 the most contaminated site in the United
20 States. It is located on the Yakama Nation
21 federally ceded lands.

22 The Yakama people have exercised

1 their indigenous rights on the Hanford land
2 from time immemorial, and continue to exercise
3 their rights as guaranteed by the treaty of
4 1855 until 1943, when the federal Manhattan
5 Project excluded Yakama Nation members from
6 approximately 580 acres of their ancestral
7 lands.

8 The Yakama Nation Reservation is
9 located approximately 13 miles from the
10 Hanford site.

11 Hanford is of extraordinary
12 significance to the Yakama Nation. Hanford
13 was a Yakama Nation wintering ground from time
14 immemorial, and contains cultural resources
15 and trust resources of an unestimated value to
16 future generations of the Yakama members.
17 Hanford has and will affect treaty resources
18 beyond the site's boundaries.

19 Yakama government policies states
20 that the Hanford site must be restored into a
21 condition which permits full exercise of
22 Yakama Nation treaty rights, while ensuring

1 protection for the health and safety of Yakama
2 members.

3 Pursuant to their sovereign
4 interests, Yakama Nation has enacted a number
5 of tribal directives to protect its rights and
6 interests in respect to the Hanford
7 activities.

8 These include: establishing an
9 agreement with the Department of Energy to
10 ensure treaty compliance to protect the Yakama
11 people and the natural resources; initiate a
12 comprehensive, independent assessment of
13 natural resources affected by Hanford; conduct
14 an assessment of unique risks to tribal
15 members and their culture; and measures
16 necessary for special protection of the
17 resources and the Native American peoples.

18 Also, to develop in consultation
19 with Interior and Energy Departments a
20 mutually agreeable process to permit co-
21 management of the treaty-defined resources.
22 And most recently, establishing a

1 comprehensive effort for the removal of the
2 buried plutonium contaminated waste for proper
3 disposal in a geological repository.

4 The Yakama Nation was one of two
5 tribal governments in the United States
6 requested to participate in initially
7 implanting process in 1989, in recognition of
8 the extraordinary impacts to the Yakama Nation
9 from past federal government activities and in
10 anticipation of continued impacts during
11 remedial actions and restoration activities.

12 Since that time, the Department of
13 Energy has recognized other tribal governments
14 which are affected by its weapons complex
15 activities.

16 As Hanford cleanup approaches
17 completion, or is terminated at specific waste
18 sites or operable units, ensuring that treaty
19 compliance is intended becomes a critical
20 intergovernmental concern.

21 In order to implement its
22 government-to-government relationship with the

1 tribal sovereigns, the Department of Energy
2 has developed an American Indian and Alaskan
3 Native Tribal Government Policy. This policy
4 is based on the United States Constitution,
5 treaties, Supreme Court decisions, Executive
6 Orders, statutes, existing federal policies,
7 tribal laws, and the dynamic political
8 relationship between Indian nations and the
9 federal government.

10 The most important doctrine
11 derived from this relationship is the trust
12 responsibility of the United States to protect
13 tribal sovereignty and its self-determination,
14 tribal lands, assets, resources, and the
15 treaty under the federally recognized reserved
16 rights.

17 This concludes my statement. Once
18 again, I'd like to thank the Blue Ribbon
19 Commission for allowing the Yakama Nation this
20 time to provide testimony. Thank you.

21 CHAIR HAMILTON: Thank you very
22 much, Mr. Spencer. We thank you for your

1 testimony.

2 Are there questions for Mr.
3 Spencer?

4 If not, thank you kindly, sir.

5 MR. SPENCER: Thank you again.

6 CHAIR HAMILTON: The next witness
7 is Brooklyn Baptiste. He's from the Nez Perce
8 Tribe.

9 Mr. Baptiste, I understand you're
10 the Vice Chairman, is that right?

11 MR. BAPTISTE: Yes.

12 CHAIR HAMILTON: We thank you very
13 much for your appearance this afternoon. You
14 may proceed.

15 MR. BAPTISTE: Okay. Thank you.

16 First of all, I'd like to thank
17 the Department of Energy and the Blue Ribbon
18 Commission this morning for requesting the
19 tour. I think any tour that you can take out
20 there in any capacity is definitely beneficial
21 to everyone.

22 We had a little time in between

1 the bus rides to chat a little bit and get
2 some more information from each other and some
3 other views outside a technical but political
4 format, which is helpful from all angles.

5 I think the tribal view that we'll
6 express here today kind of goes along those
7 lines. It's really hard to quantify the
8 dynamics. It's not an academic position most
9 of the time from the tribes, although the
10 tribes do have the capacity. We have
11 hydrologists, geologists, engineers, and
12 scientists that work for the tribe at that
13 same technical level.

14 But the things that we'll talk
15 about that the tribe would like to express
16 come directly from a culturally-based point of
17 view that are protected in the treaty of 1855,
18 as the gentleman before me, Mr. Spencer, has
19 spoken about.

20 Those are tribal customs
21 guaranteed protected by the treaty of 1855,
22 which is also mentioned in the Constitution in

1 the United States as supreme law of the land.
2 That's where we come from, predominately.

3 I'd like to begin by reading some
4 of the comments that were formulated by the
5 tribe.

6 But we also formulated an end-
7 state vision by the Nez Perce Tribe which was
8 adopted in January 2009. That's how we as the
9 tribe see our relationship based on that trust
10 foundation between the government and the
11 Department of Energy, and how we think we
12 would like to see this and be involved with
13 this.

14 In setting that statute approved
15 by the tribal government is one of those
16 vehicles that we would like to utilize to
17 continue our relationship in that manner.

18 I'll begin by introducing myself
19 again. Brooklyn Baptiste; I serve as the Vice
20 Chairman for the Nez Perce Tribe Executive
21 Committee. I also serve as the Natural
22 Resource Subcommittee Chair for my tribe, as

1 well.

2 I work a lot with our
3 Environmental Waste and Restoration Management
4 Office. We have a great staff. They're
5 always on site.

6 I think that the DOE tries to do
7 their best to accommodate the tribe's needs as
8 technology grows, as relationship grows. I
9 think that things are evolving to where we
10 would like to see the relationship further
11 ourselves.

12 That directly involves the
13 situation here as far as EM, the Hanford
14 nuclear site, and the waste and disposal of
15 that waste. That's what we'll begin with
16 today.

17 I'll go ahead and read what I have
18 here. Then if there's any questions, feel
19 free to ask after that. Thank you.

20 The Nez Perce Tribe is a federally
21 recognized sovereign government whose
22 aboriginal territories encompass over 13

1 million acres in what are now Idaho,
2 Washington, Oregon, and Montana, by virtue of
3 the treaty of 1855 with the United States, 12
4 Stat. 957.

5 Among other guarantees, the tribe
6 has reserved rights to take fish at all usual
7 and custom places, as well as hunt, gather,
8 and pasture animals on open and unclaimed
9 land. The reserved rights extend to areas
10 known as the Hanford reservation, here, as
11 well the Hanford reach of the Columbia river,
12 collectively Hanford.

13 In addition to the Nez Perce
14 Tribe's treaty-reserved rights, the tribe has
15 also identified, since time immemorial,
16 various lands within Hanford as sacred and
17 culturally significant to the tribe and our
18 people. The tribe's access to these lands for
19 ceremonial purpose also remains a vital
20 component to the Nez Perce tribe and the way
21 of life that we've grown accustomed to.

22 As the fiduciary, the United

1 States and all agencies have a trust
2 responsibility to the Nez Perce Tribe and
3 other federally recognized tribes.

4 The trust obligation includes a
5 substantive duty to consult with the tribe in
6 decision making to avoid adverse impacts on
7 treaty resources, and a duty to protect
8 treaty-reserved rights, as well.

9 Agency actions seeking to change
10 or reinterpret existing law shall not abrogate
11 the treaty rights for the Nez Perce Tribe.

12 The Nez Perce tribe believes that
13 the ultimate goal of any nuclear waste
14 disposal plan must be to protect the air,
15 soil, groundwater, and surface water in such
16 a manner that allows unrestricted tribal
17 access to the affected areas.

18 Tribal members' ecological
19 resources and cultural resources should not be
20 exposed to any potential adverse risks, above
21 that which has always existed prior to the
22 establishment of federal projects facilities

1 designed to store or dispose of nuclear waste.

2 The Nez Perce Tribe opposes the
3 disposal of any Greater-Than-Class-C or
4 Greater-Than-Class-C-like waste at Hanford.

5 The tribe also views the disposal
6 of high-level waste at TRU waste at Hanford as
7 unacceptable, recognizing that cleanup or
8 disposal of technology for some contaminants
9 may not currently be available. The Nez Perce
10 tribe will work with the United States to
11 further reduce the levels of any residual
12 contamination until technology becomes
13 available.

14 Interim action must provide the
15 greatest degree of human and ecological health
16 protection if physical or institutional
17 controls are selected as an option for safe
18 storage. The recovery curves must be
19 calculated so that negative impacts to treaty
20 rights can be avoided.

21 It's the recognition of the Nez
22 Perce Tribe to the Blue Ribbon Commission on

1 America's Nuclear Future that all high-level
2 radioactive waste must be disposed in a deep
3 geologic repository and in a tectonically-
4 stable portion of the North American craton.

5 Decisions should be made in a
6 scientifically sound manner, taking into
7 account known risk factors and acknowledging
8 that we do not know future population
9 dynamics, future technologies, or potential
10 access to buried material and future needs for
11 that material.

12 Based on those comments, of
13 course, the last portion of that is technical
14 in nature. But I would like to stress to you,
15 the Blue Ribbon Commission, that I understand
16 you guys have been burdened with the task of
17 a long, arduous travel to try to find out the
18 best way to do it.

19 I know that you all come to the
20 table with splendid credentials and a view
21 that, we're hoping, you might find the path
22 not only for the United States but for Native

1 Americans as well, for our tribes. Not only
2 because they are protected by law, because
3 there's things that are guaranteed in these
4 treaties that might not have always been kept.
5 But we hope that you now have the ability to
6 make that change for us.

7 I've had the opportunity to speak
8 in front of a lot of federal and state
9 agencies on concerns of the tribe, and have
10 always tried to implore that you think of our
11 children, that you think of the future
12 generations of the families here that live and
13 roam. And that once we utilized this land
14 without restrictions, and now it's tough.

15 The elder Russell -- we were kind
16 of joking around. But when we have to access
17 land now that we were using -- when you have
18 in the Hanford reach one of the best spawning
19 grounds in the Columbia River. We have to
20 wear a visitor's tag to visit it now because
21 of the contamination, because of what's on the
22 landscape now.

1 It's hard. It's hard to accept.
2 But we do it because we understand the laws,
3 we understand exactly what's trying to be
4 reached out there.

5 We also want to make sure that
6 nuclear waste, you know -- that this isn't its
7 effect. When they explained today that it's
8 being stored there -- hopefully it's not
9 forever. Hopefully, there will come a time
10 where we would like to dispose of it in a
11 permanent manner. But not here, on the
12 Hanford reserve.

13 I think so much damage has already
14 been done, so much has already been saturated
15 into the land itself that it's going to be
16 really hard to repair that and turn it back
17 into the pristine nature that it was before.
18 And that's what we're hoping, that's what we
19 hope lies within your decisions for the future
20 of our homeland here, but also for the United
21 States as well, and for the future of nuclear
22 energy for the United States.

1 With that, I'm honored to be able
2 to offer a few comments here to you. Like I
3 said, it was a good field trip today. I hope
4 that we all learned something.

5 Feel free to contact us. We've
6 sent you the information, our end-state
7 vision. But also I've sent some of the
8 letters and comments that the tribe feels are
9 imperative for us. So if you have any
10 questions after this, feel free to contact the
11 tribe in any fashion. The tribe is here for
12 any questions that you might need to -- and
13 hopefully we'll be able to facilitate that.

14 I appreciate the time that you've
15 given us to get up here and speak. Hopefully,
16 the words that we say will stay with you. And
17 hopefully you now have an opportunity to bring
18 back some of -- I think DOE is trying to do a
19 good job of bringing back that integrity that
20 these promises were founded on, that these
21 laws were based on, in our treaty.

22 You guys now have the opportunity

1 to bring back that integrity to it, keep those
2 promises to us, make sure that these things
3 are disposed of, and that the energy is
4 created in the most safe and best manner that
5 it can be.

6 I thank you very much -- in our
7 language, Qe'ci'yew'yew' -- for allowing me to
8 speak today.

9 CHAIR HAMILTON: Mr. Baptiste, we
10 thank you for your statement. I especially
11 appreciated the long-term perspective which
12 you brought to this problem, and the
13 responsibilities that you place on us to deal
14 with it in such a way that we are mindful that
15 future generations will be dealing with this
16 problem as well.

17 What that says to me is that we
18 need a good bit of flexibility and
19 adaptability in whatever we do, and a lot of
20 transparency, of course, in the process. But
21 your statement with regard to the longer term
22 perspective and our obligation to those who

1 follow us is very meaningful.

2 Are there questions from the
3 Commissioners?

4 Per?

5 MEMBER PETERSON: I would like to
6 thank you for --

7 CHAIR HAMILTON: You'll have to
8 speak right up into that microphone.

9 MEMBER PETERSON: I understand.
10 I'd like to thank you for the very
11 useful comments that you've made, as well as
12 the written materials that we received and I
13 had an opportunity to review.

14 They are, I think, very helpful to
15 us both because they point to the importance
16 of recognizing that there are wastes that have
17 been generated that should not be left in
18 shallow land disposal in tanks and other
19 things here at Hanford. That means that we
20 need to find some place, some way to deal with
21 those that will protect human health and the
22 environment into the long term.

1 I appreciate pointing towards deep
2 geologic disposal as being an appropriate
3 solution. And moreover, to providing some
4 criteria for identifying how one might
5 identify appropriate deep geologic disposal
6 sites for that purpose.

7 So of course we need to consider,
8 then, a process to develop this type of
9 disposal capability. And wherever it is, it's
10 likely to again impact Native Americans.

11 My question actually relates to
12 the relationship with DOE and your thoughts
13 on, from the perspective of developing
14 repositories, is DOE the proper agency to do
15 that? And what would you recommend in terms
16 of the best approaches for these necessary
17 interactions with and in communication with
18 Native Americans?

19 MR. BAPTISTE: Thank you for your
20 comments and your question. I guess I'll do
21 my best to try to provide you an answer.

22 I think that's what DOE

1 specializes in and I think that's exactly what
2 they're supposed to do. They're supposed to
3 provide you with their best recommendations
4 with us for finding that repository.

5 I think they have the ability to
6 do that more so than anyone else does. I
7 think they should, and I think they would be
8 that resource. I think they provide a lot to
9 the tribe's view, and I think they do their
10 best to try to facilitate that trust
11 obligation. I think it can grow as technology
12 grows.

13 I think as a tribal government, as
14 we grew, so did our need for them to
15 communicate back and forth. As we
16 strengthened in our government system, we
17 realized there's a lot of things that we
18 weren't getting because we didn't ask for it.

19 I think that's what's happening
20 now between the governments of the tribes as
21 sovereigns, as federal trust agents. I think
22 those things are happening now. I think that

1 it can be stronger. We want to be included,
2 even though by law we should be and in
3 policies they state to involve the tribes. I
4 think it can grow and I think that's where
5 it's going.

6 This is a testament to that
7 relationship, having us here testifying in
8 front of the Blue Ribbon Commission on exactly
9 where we want to go. I think that the tribe's
10 relationship with the Department of Energy can
11 only grow stronger. I expect it to.

12 CHAIR HAMILTON: Jonathan Lash?

13 MEMBER LASH: One of the
14 impressions that is very striking after
15 spending even a morning on the Hanford site
16 is, first of all, how long it takes to clean
17 up problems that didn't take so long to
18 create, and how much money it's taking.

19 Also, that we were looking at
20 disposal technologies that may have seemed
21 reasonable even 50 or 60 years ago and now
22 seem unreasonable to us. And that knowledge

1 has advanced and surely will continue to
2 advance quite quickly.

3 I'm wondering, you strongly
4 recommended the creation of a deep geologic
5 repository. It seems likely that, at the pace
6 our country has been moving to do that, it
7 will be decades again before such a repository
8 is created. We'll again learn a great deal.

9 Are you comfortable with the idea
10 that in the interim, until a repository is
11 created, the cleanup process and the
12 vitrification process are satisfactory, and
13 that the wastes can remain at that site until
14 a repository is available?

15 MR. BAPTISTE: I think the best
16 way to answer that is, I think that's the best
17 possible way to do it at this time with what
18 technology allows us to operate under. So I
19 think, of course, yes. We are comfortable
20 because there's other technologies that we're
21 seeing as not the best methodology to go about
22 it. So I would think so.

1 I think that when politics plays
2 with science, science always seems to be
3 trumped by politics in the end. That's why
4 it's pretty tough to find those solutions to
5 the deep geologic repository.

6 But I think in the end, this is
7 probably the best way to take care of it all.
8 We wouldn't advocate for above ground. But we
9 think that it will do until we can get
10 something a lot better, and that's what we
11 advocate for.

12 CHAIR HAMILTON: Are there further
13 questions?

14 Mr. Baptiste, thank you very, very
15 much.

16 MR. BAPTISTE: Thank you very
17 much.

18 CHAIR HAMILTON: I think your
19 predecessor, Warren Spencer, got off easy
20 because he didn't have any questions at all.
21 The Commissioners were just getting wound up,
22 I believe.

1 MR. BAPTISTE: Well, I feel bad
2 for the next tribal leader who's behind me
3 here. You guys are warmed up.

4 Again, Qe'ci'yew'yew' for
5 everything that you do. I want to leave you
6 with this, that it's not just the tribe that
7 we're worried about. It's our neighbors here,
8 as well. It's the fish we consume, the levels
9 of contamination that are consumed.

10 We talked about drinking water
11 being at certain levels. Well, the water
12 itself is way below that and the salmon that
13 we eat are at that level. That's the
14 contamination that we deal with, as well.

15 That's how much our involvement
16 means to us; it's not just us. It's the
17 community members and it's the Northwest
18 itself. We sit in the same boat and we're all
19 together in this one.

20 Thank you.

21 CHAIR HAMILTON: Thank you very
22 much, Mr. Baptiste. The next speaker will be

1 Stuart Harris, Director of Department of
2 Science and Engineering, speaking on behalf of
3 the Confederated Tribes of the Umatilla Indian
4 Reservation.

5 Mr. Harris?

6 Is he here?

7 Yes, please. Thank you very much
8 for appearing, Mr. Harris. You may proceed.

9 MR. HARRIS: I'm trying to see
10 who's talking. Who's talking? I didn't see
11 you talking.

12 CHAIR HAMILTON: You'll want to
13 speak right into that microphone. It's a
14 sensitive microphone but you have to talk
15 right into it.

16 MR. HARRIS: I'll do my best.

17 CHAIR HAMILTON: I know you will.

18 MR. HARRIS: Thank you for the
19 opportunity. I appreciate you guys traveling
20 all over and doing this.

21 (Non-English language spoken.)

22 My name is Stuart Harris. I'm the

1 Director of the Department of Science and
2 Engineering for the Confederated Tribes of the
3 Umatilla Indian Reservation.

4 I'd like to welcome you to the
5 homelands of my people. The boundary of our
6 ancestral lands goes up from the confluence of
7 the Columbia and the Snake to the western
8 bank, all the way to Priest Rapids, and then
9 south to Lalique to Prosser, thus encompassing
10 all of the Hanford lands.

11 Thus, our leaders have expressed
12 to me that when I'm here to talk to you in the
13 most strongest of terms that they are very
14 concerned about the high-level nuclear waste
15 be consolidated and immobilized via
16 vitrification and isolated in some deep
17 geologic repository until the material is
18 rendered neutral.

19 Any waste that remains at Hanford
20 must be completely characterized and isolated
21 from the environment as much as possible.

22 I would like to ask you a

1 question. Is it high-level waste no matter
2 where it is located, whether it is in a tank
3 or in the soil beneath the tank?

4 America made it and you are
5 charged with investigating solutions. I
6 challenge you to take full responsibility for
7 your decisions, for your outcomes here because
8 countless generations will be living with the
9 consequences.

10 Many people won't remember your
11 names in 1,000 years, but they will know what
12 you have decided. In my oral tradition,
13 people do remember names. They remember names
14 for a very long time.

15 We've lived here for 10,000 years
16 or longer. We've paid for, in blood, the
17 right to retain our treaty-reserved rights
18 throughout our homeland, including these
19 Hanford lands.

20 The CTUIR oral teachings have
21 accumulated the wisdom to sustain themselves
22 through flood, famine, and strife. My

1 ancestors left me the legacy of a rich
2 language, art and exquisite environmental
3 knowledge that has become stable and rational.

4 Yet unless in one generation,
5 Hanford has become so contaminated that my
6 people will be living with the contaminated
7 consequences for the next 10,000 years or
8 longer, Hanford and its legacy will be added
9 to the CTUIR storehouse of environmental
10 teachings.

11 I can only hope that the teachings
12 don't evolve into a warning to stay away
13 forever due to contamination. And I can only
14 hope that the rich aquatic life in the river
15 and the salmon upon which we depend do not
16 become mere memories.

17 I personally, with my work that
18 I've been working on, don't want to be blamed
19 for making the mistake of not cleaning up this
20 site. Our people remember things like that.

21 The CTUIR is also a natural
22 resource trustee of all the Hanford natural

1 resources. My ancestors managed the natural
2 resources responsibly for that long and I
3 intend to pass that responsibility on to my
4 children.

5 The CTUIR's policy and end-state
6 vision for Hanford is that Hanford should be
7 cleaned, closed and fully restored. This
8 means that all the resources should be clean
9 enough to safely use for traditional
10 activities and life-ways, restored to baseline
11 conditions to support our rights and
12 resources, protected from most development and
13 accessible to tribal members for traditional
14 uses.

15 I understand, after working in
16 this nuclear field since 1993, that the United
17 States urgently needs one, or probably more,
18 deep geologic repositories for high-level
19 radioactive waste, TRU waste, both defense and
20 civilian.

21 The reclassification of salt cake
22 as low-activity waste and the blending of

1 different levels to dilute radioactivity
2 doesn't change the origin of the waste. It is
3 still classified as high-level waste and it
4 requires geologic disposal. It cannot be left
5 at Hanford.

6 DOE is legally required to
7 retrieve tank waste, whether it is in or out
8 of the tanks, and remediate the entire site.
9 Enforceable milestones have set the schedule
10 and NRC requirements mandate that high-level
11 waste will be disposed of in deep geologic
12 repositories. There are no waivers or
13 shortcuts on either aspect.

14 Without Yucca Mountain or a
15 suitable alternative that is ready fairly
16 soon, DOE will not be able to meet its legal
17 obligations.

18 Interim safe storage is an option
19 that may be required but it entails additional
20 mitigation obligations to account for the
21 continued disproportionate burden that my
22 people bear as long as they can't access their

1 natural resources safely or effectively, or
2 allowing the CTUIR to build and manage the
3 storage sheds and have some economic
4 opportunity as well as everybody else.

5 The continued storage of
6 commercial reactor fuel in pools is not a good
7 idea for several reasons that include
8 degradation of the cladding and fuel rod
9 assemblies, as what happened in the K-basins;
10 the cost of the continued security; the lack
11 of -- this is an important part, I thought --
12 the lack of a nationally standardized
13 infrastructure, which leads to widely
14 different cost estimates; and, at Hanford,
15 proximity of the storage pools to the Columbia
16 River.

17 The nation has invested a lot --
18 and it's a boat-load of money -- in the
19 mining, processing, and fabrication of fuel
20 rods.

21 In Europe they are reprocessed
22 without generating large amounts of liquid

1 waste, and 92 percent of each fuel rod
2 assembly is reused. The liquid waste is all
3 vitrified and stored above ground as high-
4 level waste in dry cask storage. The cladding
5 is crushed or minimized and stored in low-
6 level vaults.

7 I'm going to go to capping.

8 Capping high-level waste in tanks or in the
9 ground is illegal and wrong. The nation and
10 our future cannot preclude the option of
11 digging up and soil-washing the Earth.

12 If the current waste inventory is
13 left as it is, a huge amount will reach the
14 river. According to DOE's own estimates, the
15 dissolved nuclear fuel contaminants from the
16 BBXBY leak alone are moving at a quarter-mile
17 a year and they're only 5 miles from the
18 river.

19 The nuclear and chemical hazard
20 will last for tens of thousands of years.

21 Pump-and-treat remediation, chemical
22 stabilization, biologic treatments -- they're

1 only short-sighted. The only true and
2 permanent solution is to dig up the waste and
3 immobilize it using vitrification and then
4 isolating it in a deep geologic repository.

5 The current vitrification plans,
6 we believe, are not sufficient for all of the
7 high-level waste at Hanford.

8 The entire country benefited from
9 the Manhattan Project. Don't impose eternal
10 burdens on our tribal government.

11 There must be equity between the
12 cost of building the nuclear industry and the
13 people who have born and will bear the burden
14 of being exposed to products of the nuclear
15 genie -- both on the front end, mining, and
16 the back end, the perpetual legacy of
17 management and stewardship -- when we're not
18 the decision makers.

19 Tribes are not only distinct
20 governments. Our lifestyles are so tightly
21 intertwined with the environment and all the
22 natural resources, that any residual

1 contamination at Hanford has a greater impact
2 on our health and culture than on any other
3 local community.

4 We use the resources for food,
5 medicines and materials. We use the
6 groundwater for drinking and in our sweat
7 lodges.

8 Our entire natural law includes
9 aspects of the landscape, the air, the light,
10 and the water. Our law teaches our people how
11 to talk, how to dress and respect each other,
12 take care of the Earth, and manage our daily
13 affairs. Thus, we're always affected to a
14 greater degree by exposure to contamination
15 and by loss of access to our lands and
16 resources.

17 Because my people are the ones who
18 will bear the disproportionate impacts of any
19 residual materials, the CTUIR should be
20 afforded the opportunity to be a significant
21 part of the solution, including having a seat
22 on this Blue Ribbon panel.

1 True life-cycle costs of leaving
2 waste at Hanford have not been evaluated. As
3 I have explained, the impacts will be
4 affecting my offspring for many, many
5 generations. These costs must be included in
6 the life-cycle risk profile. Don't
7 overestimate or overstate the benefits of
8 jobs. Don't underestimate the cost.

9 I'd like to remind the Blue Ribbon
10 panel that Hanford was rejected as a viable
11 geologic repository during the Basalt Waste
12 Isolation Project, or BWIP.

13 I've been asked to address some
14 specific questions. How should the US go
15 about developing one or more disposal sites?
16 First and foremost --

17 CHAIR HAMILTON: Mr. Harris, I'll
18 have to ask you to begin to wrap up your
19 statement, if you would, please.

20 MR. HARRIS: I'm right there. I'm
21 with you.

22 CHAIR HAMILTON: I'm sorry?

1 MR. HARRIS: I'm right there with
2 you.

3 CHAIR HAMILTON: Okay. Thank you
4 very much.

5 MR. HARRIS: Would you like me to
6 finish?

7 CHAIR HAMILTON: If you want to
8 make a further sentence or two.

9 MR. HARRIS: Sure. I'd love to.

10 The site for a deep geologic
11 repository has to be crystalline basement
12 rock. Any siting needs to be in the
13 representation of the people. The local
14 governments have to be included. The
15 organization that manages it has to be
16 government.

17 We'd like to be a partner to the
18 solution. Our people are businessmen and we'd
19 like to be a partner to any business that
20 comes about building a repository or building
21 an interim safe storage place. As we're going
22 to be the stewards of this land, we'd like to

1 be there in the future for the cleanup as a
2 solution.

3 CHAIR HAMILTON: All right. Thank
4 you very, very much, Mr. Harris. Thank you
5 for reminding this Commission of its
6 responsibility in a very eloquent way.

7 I appreciated your statement of
8 the end-state vision, as well as the emphasis
9 you put upon the burden that your own people
10 will bear if this problem is not resolved.

11 Are there questions from the
12 Commissioners?

13 Richard?

14 MEMBER MESERVE: Mr. Harris, thank
15 you very much for your statement.

16 In the course of your comments,
17 you indicated that you had concerns about the
18 adequacy of the vitrification processes that
19 are now underway at Hanford. I'm curious as
20 to what specifically you are concerned about.

21 MR. HARRIS: Specifically, I've
22 visited other vitrification sites in

1 Sellafield and in Georgia. Typically, the
2 problems occur with the change-out of the
3 melters and the secondary waste that goes with
4 that. There's always more waste than you
5 calculate and here doesn't seem to be enough
6 redundancy built into the system in case it
7 fails. It's a nice system. We could use two.

8 CHAIR HAMILTON: All right.

9 Further questions?

10 Ernie?

11 MEMBER MONIZ: Yes. Mr. Harris,
12 thank you. As you said, you're Director of
13 the Department of Science and Engineering. I
14 think we've had a lot of discussion about the
15 technologies of cleanup, vitrification, et
16 cetera.

17 But I'm indebted to the tribes
18 here since when I came here in 1998, when I
19 was with the Department of Energy, it was the
20 tribes who were the strongest supporters of a
21 science program that could guide long-term
22 decisions. This is 12 years later.

1 I'm wondering, how do you evaluate
2 the status of the science program that can
3 understand, for example, transport of
4 radionuclides to the Columbia River;
5 understanding the science in ways that can
6 really guide long-term decisions for really
7 complete cleanup?

8 MR. HARRIS: I appreciate the
9 question. The science that we've observed is
10 sound. It seems to be well thought out. It's
11 the management of the science information that
12 seems to be the problem.

13 We have compartmentalized
14 management systems that take the science and
15 decide they want to replicate it and try
16 something from their own shop. Integration of
17 the management systems that deal with the
18 science of the movement, migration or
19 characterization of the waste seems to be the
20 problem.

21 It's very -- I appreciate the work
22 that the people are doing here. We're very

1 supportive of it. It's the management or like
2 the previous speaker had said, Brooklyn, it's
3 the politics that get involved with it.

4 Money shouldn't be an issue. We
5 have some of the greatest minds in the whole
6 world working on this.

7 My people, they look to what we do
8 and they appreciate it because it's very
9 complicated and very difficult. But one thing
10 that they do know is that, after all these
11 years we've been working on it, and we've got
12 the easy stuff cleaned up, the really hard
13 decisions are coming right now, the really,
14 really hard ones. And people are going to
15 have to make those decisions.

16 I believe the Department of Energy
17 has done a very good job in promoting good
18 science here at the site. Like I said,
19 though, it's the management of the
20 information.

21 MEMBER MONIZ: Okay. Thank you.

22 CHAIR HAMILTON: Any other

1 questions?

2 Thank you very much, Mr. Harris,
3 for your contribution to the Commission. We
4 appreciate it.

5 MR. HARRIS: Well, I appreciate
6 it. Say hello to your boss when you get back.

7 CHAIR HAMILTON: Okay. The next
8 speaker will be Alyssa Buck, the leader of the
9 Wanapum tribe.

10 Is she here, please?

11 Thank you very much for joining us
12 this afternoon. We appreciate it. You may
13 proceed.

14 MS. BUCK: Okay. Hello. My name
15 is Alyssa Buck and I represent the Wanapum.

16 I'd like to welcome each and every
17 one of you and welcome the Blue Ribbon
18 Commission here to our homelands. On behalf
19 of the Wanapum elder and the Wanapum
20 community, we welcome each of you.

21 We are an American Indian
22 community maintaining and exercising our

1 aboriginal rights. We understand the need for
2 renewable energy.

3 Before the Columbia, there was Che
4 Wana. Wanapum, which means river people are
5 part of the river and the land through which
6 it flows. We are part of the people who lived
7 here and those who continue to live along the
8 river's shores.

9 The Columbia is the river of life.
10 The Priest Rapids Wanapum people have been
11 supported by the river's bounties for
12 thousands of years.

13 Teachings of the Wanapum tell all
14 who will listen to be responsible to the land,
15 to the creatures that live within the water
16 and on the land, to the ancestors that are
17 buried in the land and to those who have not
18 yet been born. The Wanapum are the caretakers
19 responsible for the land and passing on the
20 teachings of the natural world to the next
21 generation.

22 The Priest Rapids Wanapum live on

1 the Columbia River. It has been our home from
2 time immemorial. As Indian people, we were
3 put here to protect and preserve the land and
4 river for ourselves, our children and those
5 not yet born.

6 As spiritual people, the Priest
7 Rapids Wanapum continue to practice our
8 religion in friendly understanding and respect
9 for all people and things.

10 Through strenuous and prudent
11 efforts, the Wanapum have successfully built
12 relationships with federal, state and local
13 agencies, including Department of Energy. The
14 respect, trust and mutual understanding that
15 results from these relationships allow the
16 Wanapum to actively participate in decision-
17 making processes that affect our
18 responsibilities to care for all things put
19 here by the Creator.

20 The Wanapum have made their home
21 along the Columbia River in an area known as
22 Hanford. It became a central location for us

1 because the land and river provided everything
2 needed to live life.

3 The Priest Rapids Wanapum
4 experience various impositions on their land.
5 The construction of the Hanford plutonium
6 plant and the US Army training center took
7 nearly 1,000 square miles of Wanapum land, but
8 we continue to maintain and exercise our
9 aboriginal rights.

10 We assume that all Hanford will
11 eventually be restored and protected. With
12 that, we do understand the need for renewable
13 energy.

14 That's it.

15 CHAIR HAMILTON: Thank you very
16 much. And thank you for the emphasis you
17 placed on a fair process as we deliberate on
18 the management of waste disposal. You've
19 opened our eyes to that as a very important
20 part of our deliberation. We thank you for
21 that.

22 Are there other questions from the

1 Commissioners?

2 MEMBER SHARP: Mr. Chairman?

3 CHAIR HAMILTON: Phil?

4 MEMBER SHARP: Yes. I just wanted
5 to say, if anything comes through strongly,
6 both from the testimony now and what we saw
7 today in our interaction with the
8 representatives of the tribes, it's how much
9 this country would have benefited if we had
10 had their engagement and their values in the
11 management of these systems in the early
12 years.

13 It's quite understandable that,
14 for World War II purposes, quick decisions
15 were made. What is not so understandable and
16 many of us have difficulty with is, after the
17 war and 20 years later, why actions were not
18 taken in a more timely fashion, or at least,
19 a mind-set seemed to be in place that did not
20 recognize the burden that we were placing on
21 the land, the water, the air and the people of
22 the area.

1 CHAIR HAMILTON: Thank you very
2 much. Any further questions?

3 Thank you, Ms. Buck. We
4 appreciate it.

5 MS. BUCK: Thank you.

6 CHAIR HAMILTON: We're scheduled
7 for a break now but we've been moving along at
8 a good pace. If it's all right with the
9 Commissioners, I'll go ahead and call the
10 Oregon Department of Energy if they're here,
11 Mr. Ken Niles, and we'll take that in before
12 the break.

13 Is Mr. Niles here?

14 Thank you very much, Mr. Niles.

15 He represents the Oregon
16 Department of Energy. He is with us this
17 morning. We're delighted to have you here,
18 sir. You may proceed.

19 MR. NILES: Thank you very much,
20 Chairman Hamilton, Chairman Scowcroft,
21 distinguished members of the Commission. Good
22 afternoon and welcome to the Pacific

1 Northwest. Thank you for the opportunity to
2 present the state of Oregon's perspectives on
3 several issues which involve the work of the
4 Commission.

5 Again, I'm Ken Niles. I'm the
6 Nuclear Safety Division Administrator for the
7 Oregon Department of Energy. I'm here on
8 behalf of Oregon Governor Ted Kulongoski.
9 Oregon is very much impacted by nuclear waste
10 generation, storage, transportation and
11 disposal, so your deliberations and your work
12 are important to us.

13 I'm sure your tour of the Hanford
14 site this morning was illuminating. The
15 extent and complexity of the generation of
16 waste that occurred at Hanford is
17 overwhelming.

18 Although a major cleanup effort is
19 underway, as you are well aware, to try and
20 address Hanford's waste, that waste and the
21 risk it presents are a legacy that Oregon and
22 all other Pacific Northwest residents will

1 face for many generations to come.

2 Oregon is only a few miles
3 downriver from the Columbia River and
4 potentially impacted by contaminants that get
5 into the Columbia River.

6 Our involvement in Hanford began
7 back in the 1980s, in large part because at
8 that time, the federal government was
9 examining Hanford as a potential high-level
10 nuclear waste repository.

11 By the time that project was
12 canceled, details of the extent of the
13 contamination to the soil and groundwater were
14 finally public knowledge and we moved to an
15 active oversight role of the Hanford cleanup.

16 While our primary focus is the
17 Hanford site itself, Oregon has additional
18 concerns regarding nuclear waste. The state
19 of Oregon provides the primary transportation
20 corridor to and from the Hanford site.

21 Waste shipments traveling to and
22 from Hanford typically travel over 200 miles

1 of Oregon interstate, much of which is subject
2 to unpredictable and severe winter weather
3 conditions. Through the years, we've gained
4 extensive experience and insight into safe
5 management of radioactive waste shipments
6 traveling through our state.

7 Also, Oregon is home to the former
8 Trojan Nuclear Power Plant, where 791
9 irradiated fuel assemblies are being
10 indefinitely stored in 34 dry storage
11 containers. As you well know, that spent fuel
12 is currently stranded with no place to go.

13 With all that in mind, there's
14 three points I wish to raise with the
15 Commission. First and foremost is that the
16 Hanford site is not an appropriate location to
17 take on any additional waste storage, waste
18 disposal, or waste generation missions. We're
19 more than 20 years into a cleanup that now
20 looks as though it's going to stretch to 65 or
21 70 years by the time it's all complete.

22 Cleanup at Hanford is already

1 difficult enough without adding additional
2 complexity of storing spent fuel from
3 commercial nuclear reactors or high-level
4 waste or spent fuel of other US Department of
5 Energy sites.

6 A Draft Environmental Impact
7 Statement was released late last year by the
8 US Department of Energy and it indicated that
9 the planned cleanup will not be sufficient to
10 eliminate long-term risks.

11 Risks from existing waste in the
12 soil are expected to recontaminate the
13 groundwater over and over again for a period
14 of thousands of years, resulting in
15 unacceptable human and environmental risks at
16 the Columbia River shoreline for several
17 thousand years.

18 The focus at Hanford needs to
19 remain fully on completing this cleanup. We
20 do not need the added distractions of a new
21 mission of storage or reprocessing or any
22 other distraction that we've had to face off

1 and on, at least proposed to us, over the past
2 20 years.

3 Proposals have drawn very strong
4 opposition from throughout the region. We
5 understand there is support for consolidated
6 storage as an intermediate-term solution and
7 it may well be a good idea to pursue, but
8 Hanford is not an appropriate location to host
9 such a storage facility.

10 My second point is that any
11 solution to our high-level waste problem must
12 take into consideration the transportation
13 implications.

14 The state of Oregon long ago
15 accepted as policy that radioactive materials,
16 even highly radioactive ones such as spent
17 fuel, can be transported safely. But to help
18 ensure that safety and to garner public
19 acceptance, the development of a
20 transportation program of this scale has to
21 closely involve the states along the
22 transportation routes and needs to incorporate

1 above-regulatory standards to minimize the
2 likelihood and severity of an accident.

3 Oregon has worked closely with
4 other western states and with the US
5 Department of Energy to develop and implement
6 a comprehensive transportation safety program
7 for the shipment of transuranic waste to the
8 Waste Isolation Pilot Plant. That program has
9 been highly successful and generally well
10 received by the public.

11 It has succeeded in large part for
12 a couple of reasons. One, because the federal
13 government recognized that it needed the
14 states as partners and it needed to adopt a
15 number of common-sense elements that go well
16 beyond the regulatory requirements. We would
17 need something on that same manner for any
18 transportation of spent fuel on a wide-scale
19 basis.

20 The WIPP program has seen an 11-
21 year record: more than 8,000 shipments, more
22 than 10 million miles of safe transportation

1 and only a handful of very minor incidents.

2 One of the issues we learned when
3 working with the US Department of Energy and
4 other western states, as well as other states
5 around the nation, for the past 25 years on
6 transportation planning, is that a major
7 radioactive material transportation safety
8 program cannot be successfully developed and
9 implemented over a short period of time. It
10 will take years to develop a national
11 transportation program that can support
12 consolidation, storage, disposal or
13 reprocessing.

14 The Western Governors Association
15 has passed a number of policy resolutions over
16 the years to deal with high-level waste
17 storage, disposal and transportation.

18 The WGA Policy Resolution 08-6,
19 which focuses on transportation of spent
20 nuclear fuel and high-level waste, states that
21 analysis by an experience of western states
22 show that adequate preparations to accommodate

1 large-scale shipments require at least 3 years
2 following the designation of routes and
3 shipping modes, which can be a lengthy process
4 on its own and a process which the Department
5 of Energy never fulfilled for Yucca Mountain.
6 So please, don't underestimate the amount of
7 time that will be necessary with the
8 transportation planning process and all that
9 it encompasses.

10 Our third point is a request for
11 the Commission to look for ways in which to
12 deal with the waste that's out there in
13 perhaps more manageable pieces, to look at it
14 in smaller chunks, if you will.

15 We know, for instance, there's
16 already been a mention by the US Department of
17 Energy and others that defense high-level
18 waste should be dealt with separately from
19 commercial spent nuclear fuel.

20 Clearly, the vitrified high-level
21 waste that we hoped to see at Hanford in a
22 decade or more has no value and no purpose,

1 for example, as new fuel. The discussion and
2 the examination of reprocessing is not
3 something that encompasses the Department of
4 Energy's waste. Some type of permanent
5 geologic disposal will be necessary for at
6 least that portion of the waste stream that's
7 already out there.

8 Another piece of the pie that you
9 might look at separately could be the
10 commercial spent fuel that resides at shut-
11 down and decommissioned reactors throughout
12 the nation right now. If consolidated,
13 interim storage is something that's worth
14 looking at, perhaps these shut-down reactors
15 do offer a limited known quantity of waste.
16 Perhaps that could be the amount of waste that
17 could be brought to try out that process.

18 Removing it from the reactor sites
19 would eliminate those sites as potential
20 safety or security risks and would also allow
21 reuse of those sites.

22 The Western Governors also weighed

1 in on this issue of interim storage,
2 approached it from the standpoint of state and
3 local buy-in.

4 Policy Resolution No. 09-5 states
5 that in the event that centralized interim
6 storage, either private or federal, is deemed
7 necessary, no such facility, whether publicly
8 or privately owned, shall be located within
9 the geographic boundaries of a western state
10 without the written consent of the governor.
11 That's the Western Governors' position on that
12 issue.

13 That concludes my formal comments.
14 Thank you, again, for coming to the Pacific
15 Northwest to hear a variety of different local
16 and regional perspectives.

17 CHAIR HAMILTON: Mr. Niles, we
18 thank you very much for your very concise and
19 precise presentation. The Commission would
20 certainly want to extend our thanks to the
21 Governor of Oregon for your participation this
22 afternoon.

1 We have certainly noted your
2 emphasis on the transportation policy and
3 likewise, not wanting to add any additional
4 waste to Hanford. So thank you for your
5 testimony.

6 Do we have questions?

7 Phil?

8 MEMBER SHARP: Yes, Mr. Chairman.

9 I particularly appreciate your
10 focus on the transportation. I just wanted to
11 follow up. Your point about good planning and
12 the success of WIPP are very useful.

13 I wonder, given the experience in
14 Oregon with the transportation through there,
15 whether there or anywhere else, we have had
16 accidents? And more importantly, have we had
17 accidents in which radionuclides were released
18 into the environment?

19 I got from you a high confidence
20 level in doing transportation as long as you
21 do it well planned and do it right. Am I
22 correct in that?

1 MR. NILES: We do have confidence
2 in the transportation safety program. There's
3 certainly a lot of safety inherent within the
4 shipping containers themselves. The way in
5 which radioactive materials are transported is
6 the level of hazard subsequently determines
7 the amount of shipping robustness of the
8 containers.

9 We have seen, certainly with
10 radioactive materials, shipments around the
11 nation over many years, we have had some
12 fairly severe accidents, but not with a
13 release of highly radioactive materials. The
14 releases that have occurred have been because
15 the hazard of those materials was such that it
16 did not require robust packaging.

17 What we've seen with the WIPP
18 transportation program is that the accidents
19 have been caused by mistakes by other drivers.
20 We've had a couple of drunk drivers who have
21 rear-ended the WIPP transportation vehicle.
22 We've had cars coming off the entrance ramps

1 and sideswiping them.

2 But it really is based upon some
3 very common-sense principles that I think are
4 sometimes overlooked when you look at the
5 whole WIPP transportation program. A common-
6 sense way to reduce the likelihood of an
7 accident is to have very good drivers driving
8 very well maintained trucks, and not putting
9 them in a bad situation of bad weather and
10 road conditions.

11 Those are very common-sense
12 things. And those are built into the WIPP
13 transportation program with very strict
14 requirements for the drivers, for the
15 carriers, for the inspections and protocols to
16 keep them off the road.

17 We're proud of the program that's
18 been developed. From a state perspective, we
19 certainly expect the same or more for any
20 high-level waste shipping campaign to come.

21 CHAIR HAMILTON: Chuck?

22 MEMBER HAGEL: Thank you.

1 Mr. Niles, thank you. I
2 appreciated your comments this morning on the
3 bus, as well.

4 I want to address the disposal
5 issue. Last week, the Disposal Subcommittee
6 heard from the Western Governors Association,
7 among other individuals and associations who
8 shared their view, about the disposal issue.

9 If I understood what you said on
10 that issue, and if I could ask you to maybe go
11 a little deeper into the disposal repository
12 issue -- if I got it right, you were
13 suggesting that, in your opinion, our country
14 would require a permanent disposal repository.
15 If that's true or not true, I'd like you to go
16 down a little deeper on that point.

17 And then, share with this
18 Commission your thoughts based on your
19 experience and knowledge, especially of the
20 Hanford situation, what should be the
21 requirements that we are looking at,
22 recognizing that we're not a siting

1 commission, but we do have some significant
2 responsibilities to address that issue. And
3 obviously, in the end it's a rather
4 significant part of the equation and whatever
5 decisions that are eventually made, not just
6 regarding Hanford but the nuclear cycle.

7 Thank you.

8 MR. NILES: Sure. To the first
9 part of that, in terms of Oregon's decision on
10 geologic disposal, quite frankly it is an
11 issue that as a state, we have not weighed
12 heavily in one way or another beyond the
13 support of and approval of Western Governors
14 Association resolutions over the years which
15 had advocated for deep geologic disposal.

16 So from the perspective of signing
17 on to these resolutions, Oregon has supported
18 and does continue to support deep geologic
19 disposal.

20 In terms of looking at the waste,
21 and at Hanford especially, it's a very
22 complicated situation as some of you probably

1 for the first time today at Hanford began to
2 realize what's going on there.

3 The focus at Hanford has had to be
4 and continues to be stabilizing the waste to
5 get it into a form where it would be safe for
6 deep geologic disposal, if that's what were to
7 happen.

8 It took more than 10 years just to
9 stabilize the spent nuclear fuel that was
10 stored a quarter-mile from the Columbia River.
11 When cleanup began in 1989, it was envisioned
12 that at that time we were 10 years away from
13 vitrification. Well, we're 20 years later and
14 we're still 10 years away from vitrification.

15 The focus here, I think, needs to
16 remain on those next steps of stabilizing
17 those wastes.

18 At the same time, it does cause
19 issues in terms of if they're -- as you heard
20 on the tour this morning, if you're going to
21 vitrify the waste at Hanford you have to make
22 some assumptions into what type of performance

1 it may need to meet in a geologic repository.
2 So there are decisions that are having to be
3 made now without necessarily knowing the end
4 game.

5 Likewise are issues related to
6 storage of the vitrified canisters once the
7 vitrification plant begins to produce those.
8 You saw the canister storage building which
9 has some limited room for canisters. What's
10 the next step if there are additional
11 canisters and still no place to take them?

12 The eventual disposal issues, I
13 think, at Hanford are very important. But
14 from our perspective, those more near-term
15 priorities are much more important for us:
16 getting the waste out of the tanks, getting it
17 vitrified. That is our -- I won't say full
18 focus, but it overrides issues in terms of
19 trying to figure out where that will go
20 eventually from Hanford.

21 I hope I answered your questions.

22 MEMBER HAGEL: Do you believe that

1 a permanent disposal repository is going to be
2 required?

3 MR. NILES: Yes, absolutely.
4 Absolutely.

5 CHAIR HAMILTON: Jonathan?

6 MEMBER LASH: Earlier in your
7 testimony you said that it's the position of
8 the Western Governors that no facility should
9 be located in the state without the written
10 consent of the Governor. That's
11 understandable.

12 In fact, we are learning that in
13 every country that has moved successfully
14 forward with a siting process, that process
15 has been more the negotiation of a contract
16 between a national need and a community's
17 needs, rather than the imposition of a
18 responsibility.

19 I'm interested whether you have
20 thoughts about how the relationship would work
21 between a state negotiating whether it was
22 willing to have a facility, communities

1 stepping forward and saying whether they were
2 willing to have a facility, and the federal
3 government. How should that work; should the
4 state have the full responsibility; should
5 both the community and the state be engaged?

6 MR. NILES: Well, I think if I had
7 the real answer that would resolve it we'd
8 take a giant leap forward, because I don't
9 have that. We've certainly not had a great
10 experience in voluntary siting here in the
11 United States.

12 Going back to the days with the
13 Nuclear Waste Negotiator, we had a Native
14 American tribe on the Oregon-Nevada border
15 that was into the first two phases of
16 examination. There was resistance at the
17 state level, as well.

18 But there was resistance not just
19 because of that idea. When you looked at the
20 site there just was not an easy way to get
21 there. And it just did not make sense as a
22 place to try and move waste from throughout

1 the nation.

2 I understand that one of your
3 meetings may in Carlsbad, that you're going to
4 be perhaps talking with the folks in WIPP. I
5 guess I would suggest that I hope those folks
6 there who do have a successfully sited
7 repository, despite some opposition within the
8 state -- I hope they can have some better
9 lessons for you than I can provide to you.

10 I do think the state needs to be
11 involved, absolutely. But the community is
12 certainly where the impacts would be and needs
13 to have a role, as well.

14 CHAIR HAMILTON: Okay. Further
15 questions?

16 Our time is fairly limited. We'll
17 recognize the three Commissioners and ask them
18 to be quite brief. Ernie and then Allison and
19 then Per.

20 Ernie?

21 MEMBER MONIZ: I'll just return to
22 the transportation issue. This is a bigger

1 question than Oregon.

2 There was a National Academy
3 report a few years ago that suggested that,
4 when it came to the logistics of moving 60,000
5 tons or more of spent fuel and high-level
6 waste, that perhaps a different organizational
7 structure outside the government should be
8 considered.

9 Do you have any views on that?

10 MR. NILES: You know, I would
11 throw out the WIPP transportation program and
12 its development as the model, and the way in
13 which that was done -- which was a very
14 cooperative effort between western states and
15 the US Department of Energy, later signed on
16 by other states throughout the nation -- as
17 really the model that we would like to see
18 happen.

19 CHAIR HAMILTON: Okay. Allison?

20 MEMBER MONIZ: With DOE?

21 MR. NILES: Yes, with DOE.

22 MEMBER MacFARLANE: Thanks. Based

1 on your considerable experience, I'm
2 interested to know what you think would be the
3 right institution to manage a repository and
4 site a repository.

5 MR. NILES: I'm afraid I don't
6 have a good answer to give you. As I've
7 mentioned, we have not gotten heavily into the
8 repository aspect of things. Our focus has
9 been primarily on Hanford and on the
10 transportation aspect of it. So I would say
11 I do not have the direct experience to help
12 with that question.

13 CHAIR HAMILTON: Final question,
14 Per.

15 MEMBER PETERSON: Yes. Thank you,
16 Mr. Niles. I took extensive notes because
17 there's just a long list of insights in what
18 you had to say to us. I think that that is
19 something that, in general, we've been finding
20 whenever we talk to people who've worked with
21 transport and other issues at the state level.
22 That means, of course, that that knowledge is

1 very important to us.

2 I have a question. You noted the
3 idea that perhaps one should start with spent
4 fuel from decommissioned reactor sites so that
5 you learn about transportation at smaller
6 scale before going forward. You also
7 mentioned potentially working on defense high-
8 level waste as being a priority.

9 I'd like to clarify. Did you
10 mean, have complete independence from the
11 civil or did you mean start with that first to
12 gain experience that you could then use in
13 working with disposal of civil materials?

14 MR. NILES: It could potentially
15 be both. It could be either starting with it
16 with the intent of moving on to a same
17 facility or a separate facility.

18 The idea being that there seems to
19 be a pause as we look at the idea of
20 reprocessing, which is obviously the
21 commercial waste stream and we don't have a
22 need to pause on defense high-level waste

1 because there isn't a use for that in the
2 future.

3 So if it was addressed separately
4 entirely, with a separate geologic facility,
5 or if that just became the first step, I think
6 either would be something we would like to see
7 happen.

8 CHAIR HAMILTON: Mr. Niles, we
9 thank you very much for your statement and
10 your response to questions.

11 The Commission now will take a
12 break of 15 to 20 minutes. When we return
13 we'll have Susan Leckband from the Hanford
14 Advisory Board.

15 We stand in recess.

16 (Whereupon, the above-entitled
17 matter went of the record at 2:53 p.m. and
18 resumed at 3:14 p.m.)

19 CHAIR HAMILTON: The Commission
20 will resume its sitting. We'll hear now from
21 Susan Leckband, who is the Chair of the
22 Hanford Advisory Board.

1 Ms. Leckband, would you come
2 forward, please? Thank you. We were very
3 pleased to have you this morning on our tour
4 and thank you very much for coming this
5 afternoon.

6 You may proceed.

7 MS. LECKBAND: Thank you. And
8 thank you so much for offering me the
9 opportunity to come and speak for the HAB
10 regarding the high-level waste question.

11 The Hanford Advisory Board is a
12 31-seat board made up of different interests:
13 local government, the Hanford workforce, the
14 tribes, environmental and economic interest
15 groups and members of the public at large.

16 We provide advice and
17 recommendations to the tri-party agencies. At
18 this present time -- I didn't bring my
19 calculator -- there are between 500 and 800
20 years of direct Hanford experience sitting on
21 this volunteer board.

22 The Hanford site's place in

1 history is well documented, from the
2 beginnings of the Manhattan Project through
3 the Cold War and now in terms of environmental
4 remediation.

5 In addition to huge nuclear
6 processing canyon facilities and smaller
7 supporting buildings, there are miles of
8 trenches, ditches, ponds, cribs, plus
9 underground tanks and miles of piping
10 containing nuclear wastes from past
11 operations.

12 These wastes require remediation
13 actions in many forms from simple demolition
14 to retrieval, treatment and repackaging for
15 final disposal, both on and off the Hanford
16 site.

17 The waste burden that will be left
18 on the Hanford site when remediation actions
19 are complete is huge. This is a message you
20 have heard before.

21 Today, we are in the midst of
22 construction. But this time the focus is on

1 building a waste treatment plant that will
2 convert approximately 50 million gallons of
3 nuclear waste into a more stable form, into
4 glass, so it can be permanently disposed in a
5 national repository. That's the plan, to take
6 the canisters of vitrified high-level waste
7 created by the WTP and dispose of them off the
8 site.

9 You'll notice I use the collective
10 we when describing what is currently happening
11 at Hanford. The public has become involved,
12 not only as observers, but participants in the
13 cleanup decisions being made.

14 We, the Hanford Advisory Board,
15 are part of that stakeholder segment of the
16 public who follow Hanford cleanup very closely
17 and provide advice -- to this date, more than
18 225 pieces of advice -- comments, and
19 recommendations and engage in dialogue with
20 the Department of Energy and the federal and
21 state regulators on a wide spectrum of Hanford
22 cleanup issues and decisions.

1 We recognize the Hanford cleanup
2 race is not a sprint; it's a marathon.

3 We are called stakeholders because
4 we have a stake in the outcome. We live here.
5 We breathe the air here. We use the water
6 resources of the Columbia River and future
7 generations of our families will live here.
8 The health and livelihoods of citizens of the
9 Pacific Northwest for generations to come may
10 be impacted if the cleanup is not adequate.

11 The Hanford Advisory Board is
12 concerned that Hanford will become a de facto
13 high-level waste repository for the vitrified
14 waste that will be the product of the waste
15 treatment plant currently under construction.

16 I have focused on this one
17 particular item, but please, make no mistake.
18 The Hanford Advisory Board has provided a
19 plethora of advice, ranging from simple
20 retrieval and disposal of on-site waste to
21 worker issues in health and safety. But I
22 particularly wanted to concentrate on the

1 high-level waste repository because we just
2 recently issued a piece of advice.

3 Our board operates by consensus.
4 So imagine all of you sitting around the
5 table, plus about 20 more, with varying
6 interests, coming to agreement on a piece of
7 advice. This is no small feat. And it's a
8 real testimony to those people's engagement in
9 Hanford cleanup.

10 We're concerned that if we become
11 a high-level waste repository in the interim,
12 there will be potential impacts to the vadose-
13 zone, groundwater and the Columbia River, that
14 there will be a financial burden in the need
15 to build short and/or long-term high-level
16 storage capacity. Even interim high-level
17 storage could last for decades. Will that
18 money be taken away from cleanup to construct
19 and maintain these long-term storage or
20 interim storage facilities?

21 We're also very distressed about
22 the potential for the increased total waste

1 load for the site with a very, very long
2 radioactive half-life. Over time, the
3 national will, along with funding to remove
4 the high-level waste from Hanford to an off-
5 site repository, may fade. As I said, interim
6 can be a very long time.

7 Delays in identification of a
8 national high-level repository could drive
9 costly design changes that may be needed to
10 match the vitrified high-level canister
11 specifications to a new or different
12 repository waste acceptance criteria.

13 These are simply a few of the
14 concerns we have regarding the high-level
15 waste repository.

16 I'm going to close with one
17 statement. We don't inherit this land; we
18 borrow it from our children. I don't know the
19 author of that statement, but that's very much
20 what the Hanford Advisory Board feels.

21 Thank you for this opportunity.

22 CHAIR HAMILTON: Thank you very

1 much for your statement. Your emphasis on
2 building consensus in the community certainly
3 needs to be commended. We thank you for that.

4 Are there questions from
5 Commissioners?

6 Two here. Per and then Jonathan.

7 MEMBER PETERSON: Thank you for
8 the comments and advice. I appreciate them.
9 In particular, I think that we've learned a
10 very important dimension of the problem, which
11 is this question of waste acceptance criteria.

12 If I were to summarize, and then
13 if you could tell me if I'm correct, the point
14 is that this has a strong impact on what the
15 composition is of the waste glass that needs
16 to be made.

17 This needs to be done
18 expeditiously because this is what controls
19 the rate at which we can clean up the tanks,
20 which are at risk of leaking. So it needs to
21 be done expeditiously.

22 But this does mean that we have to

1 have some idea about waste acceptance
2 criteria. And with uncertainty about what the
3 geologic repository might be, it makes it
4 difficult for us to come back and understand
5 whether we have the correct waste acceptance
6 criteria.

7 So if I'm summarizing this
8 correctly, it means that we do need to look
9 very carefully at the question of waste
10 acceptance criteria, and make sure that that
11 would not be an impediment to the future
12 geologic disposal of the materials that will
13 come out of the waste facilities here.

14 MS. LECKBAND: That's exactly
15 right.

16 CHAIR HAMILTON: Jonathan?

17 MEMBER LASH: I liked your
18 description of this process not being a sprint
19 but a marathon. The same could be said about
20 efforts to locate a long-term geologic
21 repository.

22 I was interested in your

1 observations about why it takes 20 years to
2 build a vitrification plant when other
3 countries seem to get them in operation more
4 quickly.

5 MS. LECKBAND: I believe it takes
6 this length of time because there were two
7 false starts in the beginning. There was the
8 proposal to privatize the vitrification
9 facility and that certainly was a failure.
10 That takes a great deal of time.

11 We also have a very stringent
12 regulatory process here.

13 I would also point to the fact
14 that with the government funding on a cyclic
15 basis, it makes it difficult to progress.

16 I can tell you for a fact -- I
17 worked for one of the French companies. When
18 they determined they were going to build a
19 vitrification facility, they did all the
20 designing upfront and then the government gave
21 them all the money at once. There wasn't the
22 constant struggle to make sure you had the

1 right amount of money and if you were going to
2 get the funding this year or next year.

3 The politics was removed a bit
4 from it. I think in many cases politics don't
5 necessarily hasten the process.

6 CHAIR HAMILTON: Are there further
7 questions?

8 MEMBER LASH: Will all our former
9 members of Congress take that last comment
10 into account; any defense?

11 MEMBER HAGEL: That's why we're
12 former members.

13 CHAIR HAMILTON: Any further
14 questions or snide comments?

15 MEMBER LASH: Touche.

16 CHAIR HAMILTON: Okay. Thank you,
17 Jonathan.

18 Thank you very much.

19 MS. LECKBAND: Thank you.

20 CHAIR HAMILTON: We appreciate it.
21 Give our appreciation to the Board, as well.

22 MS. LECKBAND: Thank you very

1 much.

2 CHAIR HAMILTON: The next speaker
3 is Carl Adrian, President/CEO of the Tri-City
4 Development Council.

5 Mr. Adrian, thank you for coming
6 this afternoon. You may proceed.

7 MR. ADRIAN: Thank you for having
8 me.

9 Just an observation. My office is
10 across the parking lot here and we have some
11 fleece jackets over there. So if any of the
12 Commission would need a jacket either this
13 afternoon or tomorrow, let me know. We'd be
14 happy to provide it.

15 Good afternoon. My name is Carl
16 Adrian. As you said, I'm President and CEO of
17 the Tri-City Development Council, also known
18 as TRIDEC. We use a lot of acronyms in the
19 community.

20 TRIDEC is the lead economic
21 development organization for Benton and
22 Franklin Counties. The organization was

1 created in 1963 and is designated by the US
2 Department of Energy as the community reuse
3 organization for the bi-county area.

4 TRIDEC has approximately 375
5 member companies, and contractual
6 relationships with most of the units of local
7 government in the area.

8 As a part of our broader economic
9 development programs, TRIDEC has had a long
10 history of interaction with Hanford. During
11 the '60s, '70s, and '80s, TRIDEC advocated for
12 additional missions and supported the
13 construction of new nuclear power reactors,
14 such as Columbia Generating Station which you
15 visited this morning.

16 More recently, TRIDEC has been a
17 leader in working with the Department of
18 Energy and Congress to ensure adequate funding
19 is available to clean up defense legacy waste
20 at all the weapons-complex sites, and
21 certainly -- especially -- Hanford.

22 Disposal of defense waste from the

1 various DOE sites represents a national
2 ecosystem, where individual sites such as
3 Hanford were designated for storage of
4 specific types of waste. This Nuclear Policy
5 Act ecosystem has been under way for 20 years.

6 So when Yucca Mountain was taken
7 off the table, that certainly wasn't part of
8 the deal, at least in our minds in the
9 community. But it also upsets this entire
10 ecosystem.

11 If high-level waste doesn't go to
12 Yucca Mountain, then why should New Mexico
13 take low-level and TRU waste, Idaho the
14 nuclear navy waste, or Hanford the mixed
15 waste? These are just three examples of what
16 have turned into what we believe is a
17 political house of cards for waste disposal.

18 Let me talk about some details
19 with regard to Hanford. For 67 years our
20 community -- along with other weapons-complex
21 communities -- has supported national
22 missions, first with World War II, then the

1 Cold War, and now with weapons-complex cleanup
2 missions.

3 Hanford is getting cleaned up. In
4 fact, by 2015 a 586-square-mile site will be
5 focused on the Central Plateau, an area of
6 approximately 75 square miles. So there will
7 be a dramatic reduction in active footprint.

8 In this community and in some of
9 the other weapons-complex communities, some of
10 this excess land we believe can be turned into
11 energy parks. And in our case, we believe
12 that some of that energy park can be part of -
13 - we hope can be part of -- replacing some of
14 the 45,000 gallons of diesel fuel that would
15 be burned at a waste treatment plant on a
16 daily basis to make steam, and the 70
17 megawatts of electricity that are projected to
18 be used at that facility.

19 So we believe we have an effort
20 here to not only help the community but
21 certainly help the nation, and certainly DOE.

22 The Waste Policy Act of 1982

1 established the need to identify the nation's
2 waste repositories of high-level, mixed, low-
3 level, and TRU waste.

4 Congressional amendments to the
5 Nuclear Waste Policy Act in 1987 designated
6 Yucca Mountain as the nation's deep geologic
7 high-level nuclear waste repository. It was
8 supposed to be operational, as I'm sure you
9 know, in 1998. That's been mentioned before.

10 Hanford is one of the few sites
11 that have both weapons-complex with high-level
12 waste and commercial spent nuclear fuel. This
13 site has something close to 70 percent of the
14 nation's high-level weapons-complex waste.

15 In addition, at Energy Northwest
16 we have more than 560 tons of spent commercial
17 nuclear fuel. And you heard from Oregon
18 there's another 700 tons within probably 300
19 miles of here.

20 Although you will hear from others
21 that Yucca Mountain does not have the capacity
22 to hold all the nuclear waste, it can easily

1 and safely handle all of the nation's weapons-
2 complex waste, and it should. We believe
3 strongly that it should.

4 Let's talk about confidence in the
5 process. I think the real challenge for the
6 Blue Ribbon Commission is, how do you assure
7 Tri-Cities residents, or residents of some of
8 the other weapons-complex sites, that any
9 solution you develop -- even if it's adopted
10 and implemented -- will not be susceptible to
11 the same political consequences and
12 shenanigans, frankly, that Yucca Mountain has
13 been subjected to.

14 Sound science, we believe, is very
15 critical. It's interesting -- one reporter
16 just recently in Seattle stated, or wrote,
17 that the only science currently working
18 relative to Yucca Mountain was political
19 science. Having a degree in political
20 science, I understand that process. But
21 seriously, science and NRC licensing are
22 critical to moving ahead with a solution to

1 the nuclear waste issue.

2 We have a situation where politics
3 continues to get in the way of good science.
4 As it's been mentioned, other nations such as
5 France and even Japan have reprocessing and
6 classification programs in place, and they are
7 working.

8 There are also some national
9 considerations that we believe are important.
10 Any alternative site proposed by the Blue
11 Ribbon Commission or any alternative process
12 other than Yucca Mountain will require
13 extensive study. And will cost at a minimum,
14 probably an amount equal to what was already
15 spent on Yucca, in the neighborhood of \$10
16 billion.

17 Any alternative to Yucca will also
18 set the final site selection back by years,
19 probably decades. That's even if we decide to
20 keep everything where it is currently.

21 This Blue Ribbon Commission, all
22 of you, have a tremendous challenge and an

1 opportunity to move the nation's cleanup
2 program and our nuclear program ahead. Your
3 task becomes a little easier if you separate
4 two decisions: what to do with the nation's
5 weapon complex waste, and how to close the
6 nuclear fuel cycle of the nation's commercial
7 nuclear reactor programs?

8 First off, TRIDEC recommends we
9 follow the law, and Yucca is the law for high-
10 level waste.

11 We also feel that the nation needs
12 to reprocess commercial spent nuclear fuel,
13 closing the fuel cycle. Some of that
14 reprocessing could be done at Hanford,
15 although I'm not advocating that here today.
16 But nuclear programs become nearly impossible
17 if there's no solution to the high-level waste
18 issue.

19 By the way, if nuclear-fuel -- if
20 commercial waste was recycled, Yucca Mountain
21 should be large enough to handle all the
22 weapons-complex waste and the waste remaining

1 after processing of commercial spent fuel.

2 Even the energy park located on
3 Hanford that could become available by 2015
4 becomes questionable if the waste issue is not
5 solved, or at least there's a clear path
6 forward. So we believe we can't move forward
7 without you completing your work.

8 These last two items, reprocessing
9 of spent nuclear fuel and an energy park, are
10 tremendous economic development opportunities
11 not just for this community but, I think, for
12 the nation. So we really do await the outcome
13 of your deliberations and the path forward
14 that you may recommend. Again, we can't
15 afford to wait another 10, 20, or 30 years to
16 solve this predicament.

17 I understand that a number of you
18 asked some questions on the tour this morning
19 regarding energy parks. On behalf of TRIDEC,
20 we would be happy, along with some of our
21 partners at the other weapons-complex sites,
22 to come and brief you at some point on the

1 status of those parks in the various
2 communities. We make that commitment to you
3 at this time.

4 That concludes my remarks.

5 CHAIR HAMILTON: Thank you very
6 much, Mr. Adrian. We thank you for your
7 participation.

8 Are there questions from Members?

9 Brent?

10 CHAIR SCOWCROFT: Thank you very
11 much, Mr. Adrian. I just wonder how your
12 thoughts about future development at Hanford
13 correspond to those of the Indian tribes' that
14 we heard from earlier, who also claim some
15 jurisdiction here.

16 Are you in agreement with them?

17 MR. ADRIAN: I don't view the
18 community's thoughts as being radically
19 different than that of the Native Americans.

20 There is a land use plan that was
21 approved by DOE, I think back in the late
22 '90s. It designates some 60 square miles for

1 potential industrial use and another 9,000
2 acres for research and development use.

3 The community believes, I will
4 say, there are some parts of the site that
5 should be open to public access. And not that
6 they should be disturbed, but should be open
7 for the public to be able to see. The top of
8 Rattlesnake Mountain is one that I think is of
9 much interest in the community, and the views
10 that you can receive from there.

11 But again, I think the community
12 in fact is beginning an effort later this
13 summer and early fall, in conjunction with
14 DOE, to really look at some of those long-term
15 land use issues. We hope the Native Americans
16 will be part of that discussion.

17 CHAIR HAMILTON: Any further
18 questions?

19 Allison?

20 MEMBER MacFARLANE: One thing you
21 said that I thought was right on was that one
22 of the most important things is figuring out

1 how to ensure that the solutions we develop
2 won't be subject to, as you called them,
3 political shenanigans.

4 What's your recommendation?

5 MR. ADRIAN: I'm not sure what the
6 answer to that is, other than it obviously has
7 to be --

8 MEMBER MacFARLANE: But you're the
9 political scientist.

10 (Laughter.)

11 MR. ADRIAN: Well, I'll go back to
12 real science and say I think it has to be
13 based on very solid science.

14 There was some discussion earlier
15 about whether the states and the community
16 should be involved and I think -- we believe
17 strongly that wherever this is going to happen
18 -- and we hope it still happens in Nevada --
19 that the state and the community need to be
20 partners in that, and work together with any
21 other groups, whether it be Native Americans
22 or others, that may be involved in the

1 outcome.

2 CHAIR HAMILTON: Further
3 questions?

4 Mr. Adrian, thank you very much.
5 Please extend our thanks to the Council, as
6 well.

7 MR. ADRIAN: Thank you.

8 CHAIR HAMILTON: You are excused.
9 We thank you for your appearance.

10 The next speaker is Gerald
11 Pollett, the Executive Director of the Heart
12 of America Northwest.

13 Mr. Pollett, we're very pleased to
14 have you. You may proceed.

15 MR. POLLETT: Joining me today
16 will be Sarah Minkler, one of seven university
17 and regional law students interning with us
18 this summer.

19 Could I have our PowerPoint put
20 up?

21 Thank you, members of the
22 Commission, for touring Hanford. On behalf of

1 our 16,000 members across the Northwest, thank
2 you for touring and thank you for being here.

3 You have our detailed testimony.
4 I'm going to present the summary of it and
5 answer your questions. You have graphics,
6 footnotes, etcetera in the background.

7 If I could go to the next slide?

8 Here you have what it is we're
9 trying to protect out here in the Northwest,
10 the Columbia River, running through Hanford
11 from left to right for 50 miles.

12 Next slide?

13 Flowing through for 50 miles. And
14 as we speak today, you have radioactive
15 strontium-90 entering the river in seeps,
16 measured at the shoreline wells at 1,500 times
17 the drinking water standard.

18 I'd like to take a minute to have
19 you think about what that means. The drinking
20 water standard is set at a level at which one
21 adult out of every 10,000 die of cancer.
22 Children are three to ten times more

1 susceptible to cancer from the same dose.

2 As you've heard eloquently earlier
3 today, there are tribes with treaty rights to
4 live along and fish those 50 miles, and to use
5 the resources, which includes the groundwater.
6 Think about a 15 percent fatal cancer rate if
7 you use that groundwater.

8 Next slide?

9 The first lesson that we hope you
10 will take away from Hanford is, the 53 million
11 gallons of liquid high-level nuclear waste
12 sitting in the tanks are the result of
13 reprocessing. Reprocessing equals liquid
14 high-level nuclear waste.

15 There is no treatment plant that
16 operates and is in-site. It is \$8 billion
17 over budget. It is still, and always seems to
18 be, 8 or 10 years away from completion. It
19 has massive challenges to work properly.

20 The proposals for reprocessing,
21 including the Department of Energy's Draft
22 GNEP EIS issued in December 2008, simply

1 avoided even calculating what the cost of
2 reprocessing was, or what would happen with
3 the wastes from reprocessing, other than to
4 say shallow land burial. And if there's
5 another lesson from Hanford, it's that shallow
6 land burial is unacceptable.

7 Next slide, please.

8 Hanford's contamination from
9 shallow land disposal is far above what anyone
10 can view as acceptable. And the Energy
11 Department -- driven by decisions to minimize
12 the amounts of waste it wants to send to the
13 hypothetical Yucca Mountain repository, and
14 driven by decisions to avoid deep geologic
15 repositories for other wastes -- proposes to
16 leave vast quantities of waste in the ground
17 and even in the bottom of the tanks.

18 We call the Energy Department's
19 plan to cap 1,700 acres or more of central
20 Hanford a coverup, not a cleanup plan.

21 Next slide?

22 This is from the Draft Tank-

1 Closure Waste Management Environmental Impact
2 Statement released by the Energy Department
3 last October. It shows its projection for
4 uranium-238 in the groundwater 125 years from
5 now, mostly due to the releases from residues
6 from tanks, from discharges from the tank
7 systems that would be capped and not cleaned
8 up, and from the proposed landfills, including
9 the one for the secondary wastes from
10 vitrification and the wastes for where you put
11 the melters, etcetera.

12 Next slide?

13 This is uranium in the groundwater
14 in the year 3890. Think about what we are
15 doing for future generations.

16 Next slide?

17 This is a chart from the EIS
18 showing that the Energy Department's
19 projection, for instance, for plutonium in the
20 groundwater under the Central Plateau will
21 grow to 160 times the drinking water standard
22 in 1,000 years. And this is without adding

1 off-site waste.

2 Next slide?

3 This is iodine in the groundwater
4 in approximately 2,000 years. The dark red is
5 50 times the drinking water standard. You see
6 it heading towards the Columbia River as it
7 slowly releases from the landfills and the
8 residues that the Energy Department proposes
9 to simply cap.

10 Sarah, do you want to talk about
11 some of the implications of this for a moment?

12 MS. MINKLER: Good afternoon. My
13 name is Sarah Minkler. I am one of several
14 law students who has been working with Heart
15 of America Northwest and Mr. Pollett.

16 Our main focus has been filing a
17 complaint against DOE regarding one of their
18 2004 Records of Decision which designates the
19 Hanford area as essentially a radioactive
20 waste dump.

21 This decision basically says only
22 that additional waste will be transported and

1 dumped at Hanford. It doesn't give us an
2 opportunity to discuss whether this
3 radioactive waste should even be shipped to
4 Hanford.

5 I think that for future
6 generations, my generation -- I see a few
7 other younger faces in the crowd -- your
8 children and grandchildren, it seems like a
9 125 years, several thousand years -- seems
10 like a long time and it's very far out.

11 But it's our generation who are
12 going to have to clean up Hanford, clean up
13 the contamination. And I think that until we
14 have a firm grip on what we obviously haven't
15 cleaned up yet, before we have a firm grip on
16 that, I don't think that it's responsible to
17 ship additional waste into Hanford.

18 Thank you. And I'll turn it back
19 over to Mr. Pollett.

20 MR. POLLETT: Thank you, Sarah.

21 Bob Apple, one of my board members
22 and Spokane City Council member, asked me to

1 follow up on that by saying that the
2 Commission might have the idea that storing
3 additional waste or disposing of additional
4 waste at Hanford, at a site with prevailing
5 winds heading towards my city of Spokane, is
6 appropriate. The people of Spokane don't
7 think so.

8 In 1986, I wrote a statewide
9 referendum for Hanford that stopped Hanford
10 from simply being designated as the other
11 Yucca Mountain finalist. And said, under the
12 Nuclear Waste Policy Act, that any veto by the
13 governor would be exercised by vote of the
14 public.

15 A question was asked earlier about
16 how you get community consensus. It is vital
17 that the entire state be involved in the
18 question of where you site a deep geologic
19 repository.

20 And one of the other major take-
21 aways -- if I can have the next slide -- let's
22 go, jump ahead a few slides. Next slide, next

1 slide.

2 You need several deep geologic
3 repositories. There is three times more
4 plutonium in the soil at Hanford than the
5 Energy Department has acknowledged. There is
6 16 times more plutonium and transuranic waste
7 in the soil at Hanford than the Energy
8 Department has -- in the contact plan at TRU -
9 - it is planning to ship to WIPP.

10 Essentially, we need a repository
11 for additional transuranic waste, Greater-
12 Than-Class-C-Waste, which the Energy
13 Department has another pending EIS proposing
14 shallow landfill disposal of at Hanford or
15 another site.

16 We need a repository for a
17 significant quantity of the low-activity
18 vitrified waste that cannot be buried in the
19 landfills at Hanford without causing the
20 damage you saw from radioactive iodine,
21 technetium-99, etcetera, to the groundwater.
22 The low-activity waste vitrified also releases

1 and contaminates our groundwater above
2 standards for 10,000 years.

3 Long-term storage capacity for the
4 vitrified waste is something that we've always
5 expected to have to need at Hanford. It is
6 not going to contaminate the groundwater. But
7 we need to have a repository program that gets
8 it right. We're not afraid of having the
9 vitrified canisters stored here, but we are
10 afraid of having vitrified low-activity waste
11 buried and contaminating the groundwater.

12 Thank you very much. I'd be glad
13 to answer your questions, and you have
14 detailed comments distributed.

15 CHAIR HAMILTON: Thank you very
16 much, Mr. Pollett, for a very thoughtful
17 presentation.

18 Are there questions from Members?

19 Pete?

20 MEMBER DOMENICI: I just have a
21 couple of questions. What is your
22 organization?

1 MR. POLLETT: Heart of America
2 Northwest. We are the region's oldest,
3 largest public interest group working for the
4 cleanup of Hanford, with 16,000 members across
5 Washington and Oregon.

6 MEMBER DOMENICI: Are they against
7 the proposals that DOE has for Hanford, or are
8 they in favor of it, your 16,000 people?

9 MR. POLLETT: Well, we're against
10 using Hanford as a national radioactive waste
11 dump for the 3 million cubic feet of off-site
12 waste that the Energy Department proposes to
13 ship in.

14 We are against delaying emptying
15 single-shell tanks through the year 2040. We
16 believe it can be done faster.

17 We are for cleaning up. Our
18 organization led the effort that ended the
19 liquid waste discharges. And we spearheaded
20 the effort to end the Energy Department from
21 using unlined soil trenches at Hanford for
22 disposal.

1 MEMBER DOMENICI: I know that
2 you're very effective. You win them all.

3 I was wondering, do you work full-
4 time for this organization?

5 MR. POLLETT: Yes, I do.

6 MEMBER DOMENICI: So you're on a
7 salary that they pay you?

8 MR. POLLETT: That's right.

9 MEMBER DOMENICI: Is your salary a
10 matter of public record?

11 MR. POLLETT: Well, I'd be glad --

12 MEMBER DOMENICI: Is it or not?
13 I'm not going to investigate it.

14 MR. POLLETT: -- to tell you
15 privately.

16 MEMBER DOMENICI: I didn't hear
17 you.

18 MR. POLLETT: I'd be glad to tell
19 you what my salary is without it being
20 broadcast across the country.

21 MEMBER DOMENICI: You can tell me
22 at the door. I'll be at this door over here.

1 MR. POLLETT: Let's just say my
2 wife and I drive a 12 or 13-year old beat up
3 station wagon, sir.

4 MEMBER DOMENICI: I'm just
5 kidding. You don't know me very well.

6 MR. POLLETT: I earn a fraction of
7 what the Energy Department people get paid.

8 MEMBER DOMENICI: You don't know
9 me very well, so you interrupt me and things.
10 That really is not nice.

11 MR. POLLETT: I'm sorry.

12 MEMBER DOMENICI: You just take
13 your turn and I'll take mine. I'm a slow,
14 easy-going guy.

15 You're a full-time employee.
16 Would you say that you're charged with seeing
17 to it that what you and your experts think
18 should be the case is the case out at this
19 reservation; is that the way you see your job?

20 MR. POLLETT: Our job is to use
21 the Energy Department's own analyses and our
22 independent analyses. We have three

1 hydrogeologists -- some of whom used to work
2 on-site -- on our Board. We use those
3 analyses to try to advocate for a cleanup that
4 protects the Columbia River, protects the
5 health of future generations, and is safe for
6 the workforce.

7 MEMBER DOMENICI: One last
8 question. Are there witnesses today from the
9 area that have been opposed to permanentizing
10 what we have out there?

11 We have used the words, "We want
12 to follow good science." Would you say that
13 is your mantra, too, that you want to follow
14 good science?

15 MR. POLLETT: Well, I believe --

16 MEMBER DOMENICI: What is it with
17 reference to science? How do you put science
18 into this?

19 MR. POLLETT: I think good science
20 would have us look for a deep geologic
21 repository located in granite and --

22 MEMBER DOMENICI: No. No. I

1 don't want you to give a speech. I want to
2 know whether you support the notion of good
3 science having a big part in the decision
4 making here.

5 MR. POLLETT: Absolutely. And I
6 believe that everyone who you hear from,
7 whether they agree with me or not, believes
8 that they're advocating for good science.

9 MEMBER DOMENICI: I don't think
10 you mentioned that in your comments. Did you?

11 MR. POLLETT: Well, I'm not sure.

12 MEMBER DOMENICI: You were too
13 busy talking about what we shouldn't do to
14 talk about what we should do, it seems to this
15 Senator.

16 Having said that, I want to thank
17 you for coming, and in particular thank the
18 young lady for the time she puts in on this.
19 I hope that you will look for all expert
20 opinions on both sides of things, because
21 America has a huge problem.

22 I will tell you, so you don't get

1 too worried about what we're going to decide,
2 we don't have the authority to designate the
3 sites for future waste disposals, either
4 temporary or permanent. That's not within our
5 charter.

6 So, as far as us designating it,
7 you can rest assured that it was your
8 testimony, young lady, that convinced us.

9 CHAIR HAMILTON: Any further
10 questions?

11 MEMBER DOMENICI: Thank you, Mr.
12 Chairman.

13 CHAIR HAMILTON: All right.
14 Allison?

15 MEMBER MacFARLANE: I'm interested
16 in where your figures came from, the maps of
17 the contamination.

18 MR. POLLETT: All the maps have
19 the citations in our testimony that you should
20 have in front of you or distributed to you.
21 They are from the Draft Tank-Closure Waste
22 Management Environmental Impact Statement --

1 MEMBER MacFARLANE: Okay. They're
2 DOE?

3 MR. POLLETT: -- issued by U.S.
4 DOE. Yes.

5 MEMBER MacFARLANE: Okay.

6 MR. POLLETT: Yes.

7 MEMBER MacFARLANE: And -- so I
8 understand the iodine-129 comes from the
9 vitrified low-activity waste. Is that the
10 main source?

11 MR. POLLETT: It is not the only
12 source -- and I hope that the Department of
13 Ecology will be speaking tomorrow about this -
14 - it is not the only source. The off-site
15 waste would contribute tremendously to it, as
16 well.

17 MEMBER MacFARLANE: The off-site
18 waste?

19 MR. POLLETT: The proposal to add
20 3 million cubic feet of mixed and low-level
21 off-site waste.

22 MEMBER MacFARLANE: Okay.

1 MR. POLLETT: But the impact to
2 groundwater shown in the slide I showed was
3 without the off-site waste added.

4 MEMBER MacFARLANE: Okay.

5 MR. POLLETT: And the iodine and
6 technetium-99 are very serious hitters for the
7 groundwater.

8 MEMBER MacFARLANE: I know. What
9 about the plutonium map that you showed,
10 what's the source of the plutonium?

11 MR. POLLETT: The sources for the
12 plutonium are myriad. We don't have a lot of
13 time. But there is a lot in the tank
14 discharges, a very significant amount in the
15 deliberate -- remember, the tank wastes when
16 they ran out of room they were discharged
17 straight into the soil of --

18 MEMBER MacFARLANE: So those are
19 the discharges that already happened?

20 MR. POLLETT: And there are 43
21 miles of unlined trenches with plutonium.
22 There is the US Ecology site with plutonium.

1 The list goes on and on.

2 MEMBER MacFARLANE: Okay. Any of
3 it come from the tank heels?

4 MR. POLLETT: I don't know the
5 extent of the percentage of that contribution
6 from the tank heel. Someone else, perhaps
7 from the U.S. DOE, can answer that. I don't
8 think that it's very high from the tank heel.

9 MEMBER MacFARLANE: Okay. Thanks.

10 CHAIR HAMILTON: Further
11 questions?

12 Chuck?

13 MEMBER HAGEL: Mr. Chairman, thank
14 you.

15 Thank you both for coming.

16 I did not read all of the
17 information that you had forwarded to the
18 Commission before we arrived. So the question
19 I'm going to ask may well be answered in that
20 information. But here's the question.

21 Have you submitted to DOE your
22 organization's recommendations, specific

1 recommendations on what you believe should be
2 done about Hanford today?

3 We are where we are. We have a
4 problem. We all recognize that. We're not
5 going to fix the problem without some answers.
6 It's difficult. We have all these different
7 dynamics of interest that are flowing through
8 this issue, which we've heard from some today
9 and we'll hear more tomorrow.

10 So the question is, have you sent
11 a list of recommendations to the DOE on what
12 you believe they should be doing today about
13 unraveling all these problems?

14 MR. POLLETT: Extensively. Our
15 comments on the Tank-Closure Waste Management
16 EIS I think were 40-some odd pages.

17 We are a member of the Hanford
18 Advisory Board, and our Chair spoke earlier
19 about our consensus having issued, I think,
20 215 pieces of advice. And board members often
21 joke that they can tell which advice I write
22 because it's longer than the others.

1 So we have very extensively
2 participated. And I have to say, we have
3 enjoyed a very good relationship in terms of
4 having good discussions with site management
5 about those proposals.

6 MEMBER HAGEL: What has DOE's
7 response been?

8 MR. POLLETT: Well, the Energy
9 Department has a baseline for capping these
10 discharged sites and the 43 miles of unlined
11 trenches, instead of characterizing what is in
12 them and retrieving as necessary.

13 I think you'll see that the state
14 of Oregon, Heart of America Northwest, the
15 tribes, and the Advisory Board have repeatedly
16 said it is inappropriate to assume that you
17 can just cap these vast areas at Hanford
18 without examining what is in the trenches,
19 what is in the discharge cribs -- cribs are
20 the liquid waste discharge areas -- and ponds,
21 and deciding after characterization what needs
22 to be dug up and treated.

1 And a significant portion of it,
2 we believe, needs to go to deep underground
3 repositories.

4 MEMBER HAGEL: So you have
5 recommended the actual implementation of
6 different processes and procedures and
7 policies in order to address this?

8 MR. POLLETT: Yes. And on tank
9 wastes we have urged that -- we believe very
10 strongly that we can retrieve single-shell
11 tank wastes faster than 2040, which is the
12 Energy Department's current proposal.

13 MEMBER HAGEL: May I just take
14 advantage of one other quick question? I'm
15 sorry to interrupt you but I know our time is
16 short.

17 What did you mean by coverup? You
18 say that the DOE -- it's not cleanup, it's
19 coverup. What are they covering up?

20 MR. POLLETT: Well, literally,
21 the Energy Department's proposal is not to
22 look at what is in 43 miles -- 43 miles -- of

1 unlined ditches into which radioactive wastes
2 were disposed 50 feet deep. It's a vast
3 quantity of waste.

4 In order to examine what is in the
5 liquid waste discharge sites on the Central
6 Plateau along the river corridor, by contrast,
7 under pressure from EPA, the state, and the
8 public, the Energy Department agreed in the
9 '90s to simply retrieve all those waste sites.

10 For the Central Plateau it is
11 saying, "We are going to cover them, that is
12 it. Without finding out what is under them,
13 we are just going to cap them, cover them,
14 abandon the waste underneath it." And the
15 science is very clear that the waste will
16 continue to move.

17 MEMBER HAGEL: Are you implying by
18 coverup that they're hiding something, or is
19 what you mean literally covering up?

20 MR. POLLETT: Literally.

21 MEMBER HAGEL: You don't mean
22 they're hiding anything?

1 MR. POLLETT: Literally cover up.

2 I will say that we have recently
3 had to appeal the RCRA permit sent by the
4 Energy Department to the state where the
5 Energy Department stamped Official Use Only on
6 the maps of those low-level burial grounds,
7 and said, "You can't see where they are," even
8 though they're available online. So there are
9 still problems with secrecy at the Hanford
10 site.

11 The Energy Department, as you may
12 know from the National Freedom of Information
13 Coalition and journalist groups, has not been
14 rated very highly in terms of meeting the
15 President's openness directive.

16 Your Commission, I should say, has
17 done a fabulous job in terms of transparency
18 and openness. I appreciate that. Thank you.

19 CHAIR HAMILTON: Mr. Pollett, we
20 thank you very much for your appearance.
21 Thank you also to Sarah for appearing with
22 you. We're very pleased to have you. Thank

1 you very much.

2 MR. POLLETT: Thank you all very
3 much.

4 CHAIR HAMILTON: Our next speaker
5 will be Vic Parrish from Energy Northwest. We
6 learned this morning that Vic Parrish is
7 retiring as of today as the CEO of Energy
8 Northwest.

9 Vic, we certainly express our very
10 best wishes to you in your retirement. We
11 thank you for the contributions you have made.
12 Thank you also for joining us all morning in
13 our tour. We look forward now to your
14 presentation.

15 MR. PARRISH: Thank you, Chairman
16 Hamilton.

17 Chairman Hamilton and Scowcroft
18 and distinguished members of the Commission,
19 I am Vic Parrish. I am the Chief Executive
20 Officer of Energy Northwest until close of
21 business today.

22 I'd like to thank you for the

1 invitation to speak with you today on behalf
2 of the commercial nuclear industry about the
3 future of our nation's used nuclear fuel
4 management policies and programs. We
5 appreciate the opportunity to open an ongoing
6 dialogue with the Commission as it carries out
7 its mandate.

8 Energy Northwest owns and operates
9 Columbia Generating Station nuclear power
10 plant located in nearby Richland. Columbia
11 has operated safely and reliably for more than
12 25 years. We are currently in the license
13 renewal process with the Nuclear Regulatory
14 Commission to extend Columbia's operating
15 license for another 20 years.

16 Since Columbia began operation in
17 1984, ratepayers have paid approximately \$290
18 million to the Nuclear Waste Fund. Over \$34
19 billion has been paid by electricity
20 ratepayers nationwide since the fund started
21 in 1982. These funds were for the federal
22 program that was supposed to have begun

1 removing used fuel from commercial nuclear
2 power plant sites more than 12 years ago.

3 During your stop at Columbia this
4 morning you saw our used fuel storage area.
5 It was built in 2001 to temporarily store our
6 used fuel because of the delay in opening a
7 national repository.

8 This fuel is stored in a dry
9 configuration in above-ground stainless steel
10 and concrete cast, and all of it can remain
11 stored in a safe and secure manner for
12 decades.

13 It will not delay decisions to
14 bring future commercial nuclear plants online.
15 A decade's more delay is not in the best
16 interest of our nation's ratepayers and our
17 independent energy future.

18 As nuclear power grows to play a
19 larger role in supplying clean power for
20 America's increasing energy needs, we look
21 forward to the vital work of this Commission
22 to recommend policies and programs that will

1 manage this commercial used fuel as required
2 by the Nuclear Waste Policy Act of 1982.

3 In all the work that you do as a
4 part of this Commission, public trust and
5 confidence is paramount. This is not my view
6 alone but that of the nuclear industry as a
7 whole.

8 In running a nuclear power plant
9 we deal day to day with the complex issues of
10 used fuel management. We do all of those
11 activities while protecting public health and
12 safety.

13 The report you ultimately produce
14 should help citizens see clearly the issues
15 involved regarding safety and security of
16 transportation, safety and security of
17 storage, and what recycling actually means in
18 terms of the use of plutonium as an energy
19 fuel. The industry believes that there are
20 positive answers to these questions that
21 ensure continued public health and security.

22 As such, we urge that your report

1 provide actionable recommendations for moving
2 forward with used fuel management in a way
3 that enhances public trust and confidence.

4 The following key principles are
5 offered to this Commission by the nuclear
6 industry, speaking with one voice to ensure
7 that a stable used nuclear fuel management
8 policy is created.

9 I know this Commission is familiar
10 with these principles. But for the benefit of
11 those in attendance, I think it is important
12 to state them again so the industry
13 perspective is represented.

14 Such a policy must be durable, and
15 it must include a plan for the ultimate
16 disposal of the byproducts from commercial
17 nuclear power generation.

18 Policy makers should recognize
19 that an ideal technical solution is not
20 required to begin implementation of a new
21 policy direction. Advances in technology
22 improvements can be incorporated over time,

1 without deferring decisions until decades of
2 research are completed.

3 The policy must be designed and
4 operated to ensure that non-proliferation
5 goals are met.

6 The successes and failures of the
7 past must be understood to help guide future
8 innovation, and build public trust and
9 confidence in nuclear power generation.

10 The nuclear energy industry also
11 offered some recommendations to the Commission
12 to help evaluate various policies,
13 technologies, and systems that are available
14 now or might be in the future.

15 U.S. policy for the management of
16 high-level waste material should recognize
17 that an integrated management system must
18 include both near and long-term programs, must
19 be operated over decades, and cannot be
20 successful if policies regarding used fuel and
21 high-level waste are continually subject to
22 change.

1 Policies should also be
2 implemented in a manner such that the costs of
3 a long-term management strategy are not an
4 undue burden to commercial and private
5 entities in the industry, or to our society,
6 the beneficiaries of this nuclear technology.

7 Geologic disposal will be
8 necessary in any used fuel management
9 scenario. The nation's policies must
10 establish a clear and achievable path to
11 disposal. Geologic disposal is required for
12 the multiple waste forms including defense
13 material that already exist and may not be
14 suitable for recycling or other advanced fuel
15 cycle technologies.

16 Future disposal efforts should
17 endeavor to build broad-based public support,
18 and should consider a stepwise approach that
19 would demonstrate the viability of final
20 disposal and cultivate public confidence.

21 The licensing process for Yucca
22 Mountain should be completed, even if the

1 facility is not ultimately used, just to
2 demonstrate the regulatory process and provide
3 lessons for future repository programs.

4 Centralized interim storage should
5 be considered as a strategic element of used
6 fuel management to provide a safe near-term
7 solution for consolidating used fuel from
8 shutdown commercial reactor sites, and storing
9 used fuel away from current and future
10 operating sites.

11 The centralized interim storage
12 facility should be licensed by the Nuclear
13 Regulatory Commission, take advantage of past
14 projects as warranted, and be deployed in a
15 region where it has broad public and political
16 support.

17 In addition, centralized interim
18 storage could be used by the federal
19 government to meet its statutory and
20 contractual obligations to accept and remove
21 used nuclear fuel from reactor sites, while
22 reducing or eliminating the liability for

1 taxpayers.

2 This interim site could also be a
3 complementary near-term element of disposal,
4 recycling, and other advanced fuel cycle
5 technologies.

6 Such an interim storage site would
7 likely reduce public concern regarding the
8 accumulation of used nuclear fuel at operating
9 and shutdown reactor sites, and increase
10 public confidence by demonstrating the ability
11 of the federal government to effectively
12 manage commercial used fuel.

13 America's used fuel program should
14 be transferred to an entity with a management
15 and financing structure that is able to
16 function in the presence of the inevitable
17 political and policy changes that will occur
18 over the coming decades.

19 The industry recommends that such
20 an entity be empowered to act on behalf of the
21 United States for entering into and
22 administering contracts to provide used

1 nuclear fuel management and related products
2 and services. And have access to the Nuclear
3 Waste Fund and be held accountable for using
4 those monies for actions that directly support
5 the ability of the government to meet its
6 statutory and contractual obligations.

7 Both current and advanced
8 recycling and related nuclear fuel
9 technologies will not provide the sole
10 solution for used fuel management, but can be
11 a strategic element for used fuel management
12 under the following conditions.

13 Consistent, sustained political
14 and policy support is a must. Providing
15 significant value is required to justify the
16 investment in any technology, and this
17 includes enhanced economical nuclear fuel
18 supply and sustainability, and the need to
19 reduce heat, volume, and radiotoxicity of the
20 material to be placed in the disposal
21 facility.

22 Research, development, and

1 demonstration of advanced technology should be
2 pursued to improve the benefits from
3 recycling. But real, practical approaches
4 that the private sector would be willing to
5 develop, finance, and that can be successful
6 in the marketplace are needed.

7 Different technologies can be
8 developed to handle fuels from different types
9 of reactors to gain greater benefit. Systems
10 must be developed and operated in a manner
11 that meet non-proliferation goals.

12 As everyone knows, recycling has
13 been carried out safely on an industrial scale
14 in European facilities for decades without any
15 diversion of plutonium for unauthorized use.
16 That said, international nuclear fuel supplies
17 and used fuel take-back programs should be
18 explored.

19 Our last recommendation is that
20 the approached management and disposal of
21 commercial used nuclear fuel should be
22 integrated to the extent practical with the

1 management and disposal of used fuel and high-
2 level waste currently stored at Department of
3 Energy sites in South Carolina, Idaho,
4 Washington, and elsewhere.

5 In closing, I will be retiring
6 tomorrow after more than 14 years as CEO of
7 Energy Northwest. That's 44 years after I did
8 my first reactor start-up. I've had a lot of
9 time to reflect, and it's sort of natural that
10 you do that.

11 In looking back over my entire
12 career, the greatest lesson I've learned was
13 very early on as a nuclear naval officer.

14 Our nation's greatest achievements
15 started with a singular vision. President
16 Kennedy captivated the world when he announced
17 we would put a man on the moon within a
18 decade. President Reagan's vision of a
19 unified and free Europe brought down what
20 seemed to be once an immovable wall.

21 That same singular vision from
22 Admiral Rickover built our nation's nuclear

1 navy, which revolutionized naval strategy; a
2 game-changer that allowed submarines and
3 surface ships to travel farther and be at sea
4 longer without refueling.

5 None of these efforts were easy
6 and all required vision, persistence, and
7 solid leadership. They were hard challenges
8 we were willing to accept because they
9 provided immeasurable benefits to society.

10 In that same fashion, this
11 Commission can set the vision for our nation's
12 used fuel management policies and programs by
13 developing a program that will endure.

14 Again, I appreciate the
15 opportunity to speak to you today and look
16 forward to your questions. At this point I
17 conclude my remarks.

18 CHAIR HAMILTON: Mr. Parrish, we
19 thank you for your statement and especially
20 for your detailed recommendations.

21 I wanted to ask you about your
22 statement recommendation up there about quasi-

1 independent program management. Can you spell
2 that out?

3 I gather from that you don't want
4 the DOE to do it and you don't want a
5 government entity. You want some kind of a
6 public/private combination that manages the
7 process?

8 MR. PARRISH: That's correct.
9 That's the recommendation.

10 CHAIR HAMILTON: Okay. Very good.
11 Further questions?

12 Jonathan and then Al.

13 MEMBER LASH: I want to thank you
14 again for the tour this morning. I
15 appreciated the clear answers and the openness
16 in response to a deluge of questions.

17 I particularly appreciated your
18 very succinct summary of what you see as the
19 crucial considerations, criteria, principles
20 as we look at how to site a long-term disposal
21 solution.

22 I was curious, and I may have

1 misunderstood -- as you were summarizing, you
2 mentioned the importance of durability. You
3 mentioned that we need to be adaptive to new
4 knowledge but we couldn't stop to wait for
5 research and the importance of guarding
6 against proliferation, and public confidence.

7 I didn't see any specific
8 principle on the kind of environmental
9 standard the solution should meet or how we
10 achieve fairness, both fairness among regions
11 of the country and fairness among generations.
12 I'm interested in your thoughts on both of
13 those.

14 MR. PARRISH: There were some
15 comments earlier in some of the presentations
16 talking about our grandchildren. I think, and
17 this is my personal belief, that we have a
18 significant responsibility to have our
19 decisions based today on the impact in the
20 future.

21 One of the things that needs to be
22 considered very clearly and is the tough part

1 of that is really getting something happening,
2 have some actions and some steps taken. If
3 it's not necessary to talk about it, it's best
4 to be moving.

5 I use the example with my
6 employers that the car has to be moving before
7 you can drive it. There has to be some
8 mobility and you plan to check-adjust as you
9 go through. But there needs to be some
10 definite action taken and some movement taking
11 place to start dealing with the issues of how
12 we're going to handle the fuel.

13 CHAIR HAMILTON: I have Al, then
14 Allison, then Per.

15 Al?

16 MEMBER CARNESALE: I have a few
17 but maybe they can be very brief.

18 Just to follow up on the quasi-
19 independent program management, can you give
20 us an example of an agency or entity you know
21 of that does something well that's a public-
22 private partnership?

1 MR. PARRISH: A public-private
2 agency that does something well? I can tell
3 you that I think Energy Northwest is an
4 example of a public-private organization
5 that --

6 MEMBER CARNESALE: I mean
7 involving the United States government.

8 MR. PARRISH: You gave me a chance
9 and I had to get that in.

10 MEMBER CARNESALE: Okay. Well, I
11 was just wondering because it's hard to do.

12 MR. PARRISH: I think that if you
13 look at how we handle our U.S. Enrichment
14 Corporation and things like that, that's a
15 good starting point for it. It's obviously a
16 complicated environment. But that would be
17 one example I would look for.

18 MEMBER CARNESALE: I'll just stick
19 with two. On the proliferation piece you
20 spoke to in Europe, I presume nobody is
21 worried that the United States is going to
22 divert plutonium from its civilian program to

1 its weapons program?

2 MR. PARRISH: Right.

3 MEMBER CARNESALE: That doesn't
4 seem to be the problem. What we do worry
5 about is the example it might set for other
6 nations that we would rather not see have
7 reprocessing plants.

8 The other thing we would worry
9 about within the United States is that the
10 material might be stolen and sold to others,
11 whether they be terrorists or others.

12 Could you spin out just a little
13 bit more for me what you meant by it being
14 done well elsewhere?

15 MR. PARRISH: Well, obviously you
16 need controls. When you're doing a
17 reprocessing and recycling you need to have
18 controls to inventory and maintain your
19 material.

20 In reality, my position and my
21 thinking is that really, the true way to
22 prevent proliferation is to gain control of

1 the material that's already out there, and
2 burn it in nuclear reactors to get rid of it.
3 It's clear that globally, as you allow people
4 or countries start to reprocess, there needs
5 to be provisions like IAEA to maintain and
6 monitor what's happening there to prevent that
7 diversion.

8 I agree with you. I don't think
9 the US, Canada, France, or any of them would.

10 MEMBER CARNESALE: Thank you.

11 CHAIR HAMILTON: Allison?

12 MEMBER MacFARLANE: I'm interested
13 in a couple of things. Who should pay for
14 this reprocessing program?

15 MR. PARRISH: That's a discussion
16 that I was having earlier.

17 MEMBER MacFARLANE: Right.

18 MR. PARRISH: To my mind, it's a
19 model where you have to look at what it costs.
20 It's a matter of finances. If there's a
21 desire to do that then you have to look at
22 what is the cheapest, most efficient way of

1 putting a construct together to finance and do
2 that. I think a good example is --

3 MEMBER MacFARLANE: The industry
4 should pay?

5 MR. PARRISH: No. I think the
6 industry and government.

7 MEMBER MacFARLANE: The utilities
8 should pay; taxpayers should pay?

9 MR. PARRISH: Right. Taxpayers,
10 ratepayers, whatever. If the goal is to
11 recycle fuel and the goal is to burn
12 plutonium, as an example, in mixed oxide
13 fueling reactors, then we have to come up with
14 a model that works for everyone to be able to
15 finance and make that happen.

16 MEMBER MacFARLANE: Would you
17 recommend the French kind of program using
18 PUREX?

19 MR. PARRISH: I'm sorry. I
20 couldn't understand.

21 MEMBER MacFARLANE: Would you
22 recommend the French type of reprocessing

1 using the PUREX method?

2 MR. PARRISH: I was looking
3 specifically at the French program. I will
4 tell you the reason the French continue to do
5 it is because they started a long time ago.
6 As a government they decided, "This is the way
7 we're going to do business. We're going to
8 recycle our fuel." They put it in place.

9 If you did the economics on it
10 right now, you can't make the economics work
11 in building a facility to do it.

12 MEMBER MacFARLANE: That's right.

13 MR. PARRISH: But they had a
14 reason to make it work. And I think if as a
15 nation we decide we want to look 100 years
16 into the future, then one has to make a
17 decision now to start moving in that direction
18 and put the things in place to do it.

19 CHAIR HAMILTON: Per?

20 MEMBER PETERSON: Following up on
21 Allison's question, our Commission has also
22 been tasked with the job of examining the

1 current state of nuclear reactor and fuel
2 cycle technologies. In particular, the
3 potential to make substantive advances with
4 respect to economics, security, safety, non-
5 proliferation, and so on.

6 In looking at that problem, we
7 have been examining technologies. I'd
8 appreciate having your perspective as a
9 utility CEO.

10 It appears currently that perhaps
11 the nearest-term innovative new technologies
12 for reactors will be small modular reactors.
13 Here in the Northwest, of course, there has
14 been some interest at least in terms of
15 developing these technologies.

16 Have you been looking at these
17 technologies; what would you say is the
18 potential and what would we need to do in
19 order to perhaps better facilitate the
20 development of better reactor and fuel cycle
21 technologies?

22 MR. PARRISH: As far as the small

1 modular, at Energy Northwest that is an active
2 effort on our part, looking at the
3 technologies that are out there as far as
4 small modular.

5 I think obviously there are a
6 number of reasons to drive whether you would
7 build a large reactor or a small reactor. I
8 think there are needs and reasons to build
9 both, depending on where the location is and
10 the energy demand.

11 For us here in the Pacific
12 Northwest, we're looking literally from a low
13 generation point of view at probably 4,000
14 megawatts long. In other words, resources
15 that we won't need for 4, 8, maybe even 10
16 years.

17 Secondly, we don't create big
18 hunks of energy demand up here. At least,
19 typically not. It comes in smaller bites. So
20 we have a tendency to look at the small
21 reactors because they more fit the way our
22 load growth is going to be. That's why we're

1 looking at them as a potential option.

2 Now, the design of the small
3 reactors from a safety perspective and from an
4 operational perspective are much better than
5 what we have in the current generation of
6 reactors, for obvious reasons. We've learned
7 a lot of things over the last 40 or 50 years.

8 There are reasons for both. I
9 think as you develop the technology and you
10 look at the small modular, there are obviously
11 things you can do with the fuel and the fuel
12 configuration to optimize performance; and in
13 looking ahead to the future to how you would
14 manage the fuel in some circumstances.

15 CHAIR HAMILTON: All right. Pete?

16 MEMBER DOMENICI: I wanted to
17 personally thank you, not just for your
18 testimony but for the years you've served. It
19 would appear to me that as a business
20 executive, you have learned all sides and
21 everybody's side to this problem. I think
22 that's what we need and I commend you for

1 that.

2 Now that you're retired, I guess
3 tomorrow you don't have anything to do. You
4 could probably help us. So if you don't mind,
5 I would feel free in writing you and asking
6 you for answers to some of our questions. If
7 you don't think that would be inappropriate I
8 would do that.

9 What is your thinking about that?

10 MR. PARRISH: I am very inclined
11 to do that. I remind people just because I'm
12 retiring it doesn't mean I'm going to be
13 silent. I've been writing letters to the
14 editor that will all of a sudden come out of
15 my word processor here tomorrow.

16 MEMBER DOMENICI: Also, I was
17 going to follow up with a question that the
18 Chairman asked about quasi-independent
19 management. Because I think we have a problem
20 that might end up with us looking for that, in
21 that we may have a solution for the first time
22 through and for temporary storage that comes

1 from that.

2 But we have to convince the public
3 that, later on, the next steps will take
4 place. It would appear to me that we need
5 more than the statement that that's going to
6 be the case. We need something innovative and
7 different.

8 In that context, it might be that
9 your suggestion is the right one. I would say
10 for the Commission it may be one example. I'm
11 not sure.

12 But the Tennessee Valley Authority
13 might be one, Mr. Chairman. It might be more
14 independent than you would need but it clearly
15 is close to a quasi-independent agency.

16 I thank you for your testimony
17 again.

18 CHAIR HAMILTON: Mr. Parrish, I
19 think the Commission is mighty impressed with
20 the fact that you'd spend the last day on the
21 job with us. We appreciate that and thank you
22 for the recommendations you have made.

1 I guess we have additional
2 questions.

3 I'm sorry I missed you, John.

4 MEMBER ROWE: Just one question,
5 Vic. One of our earlier speakers today
6 commented on the amount spent on Yucca
7 Mountain, and then said the search for a new
8 site might cost another \$8 billion.

9 Do you think the industry can
10 afford to do it that way?

11 MR. PARRISH: No, sir.

12 MEMBER ROWE: Me neither.

13 CHAIR HAMILTON: Okay. Thank you
14 very, very much, Mr. Parrish. We appreciate
15 your recommendations and your contribution to
16 the Commission.

17 The final item will be a statement
18 from the Office of the Senator Jeff Merkley of
19 the United States Senate. I think Elizabeth
20 Scheeler is here to make that statement and we
21 welcome her here.

22 This will conclude the work of the

1 afternoon after her statement.

2 Thank you very much for appearing.

3 I might say to members of the
4 Commission that several other congressional
5 offices will be appearing tomorrow morning.
6 This is from Senator Merkley's Office.

7 Thank you.

8 MS. SCHEELER: Thank you very much
9 for letting me read his statement this
10 afternoon. We do appreciate it.

11 Mr. Co-Chairs, I ask to submit the
12 following statement into your meeting record.

13 I am pleased that the President's
14 Blue Ribbon Commission on America's Nuclear
15 Future has taken the opportunity to visit the
16 Hanford Nuclear Reservation in Eastern
17 Washington.

18 For over 60 years the Pacific
19 Northwest has had the opportunity to witness
20 Hanford's operations, keenly aware that our
21 security, environmental future, and economic
22 opportunities were tied closely to its

1 management of nuclear waste.

2 The people of the Pacific
3 Northwest have also had the opportunity to
4 witness the complications of politics and
5 bureaucracy in dealing with nuclear waste and
6 the problems that are created when waste is
7 poorly handled. This region will be dealing
8 with the reality of Hanford's nuclear waste
9 legacy for decades as we work to protect our
10 communities and environment.

11 I cannot stress enough the
12 importance of the cleanup effort that is
13 necessary for the region and how it affects
14 the entire Pacific Northwest. This cleanup
15 effort continues to be a priority for me and
16 for the area.

17 The news that even more plutonium
18 has been stored underground at the Hanford
19 site than previously reported will make the
20 cleanup challenge even more difficult. Our
21 efforts must be redoubled.

22 I understand the complex and tough

1 policy decisions that are in front of your
2 Blue Ribbon Commission. However, please
3 recognize how important the nuclear waste
4 disposal and subsequent cleanup efforts are
5 for the nation, and especially the regions
6 affected.

7 Hanford is a prime example of how
8 the cleanup efforts must be at the forefront
9 of your minds as you develop policies for
10 America's new nuclear developments.

11 Again, I understand there are no
12 easy answers when it comes to dealing with our
13 nuclear past or deciding our nuclear future.
14 But please, understand the importance of the
15 cleanup of the Hanford site. The
16 environmental health of the Pacific Northwest
17 and the Columbia River are closely linked to
18 the nuclear waste at Hanford. I look forward
19 to a toxic-free Hanford future.

20 Thank you for your commitment to
21 the future of our region. I applaud the study
22 you are doing and wish you well in your work.

1 Thank you, again, for letting me
2 read this this afternoon.

3 CHAIR HAMILTON: Ms. Scheeler, we
4 are very pleased to have you. Express our
5 appreciation to the Senator for your
6 appearance. Your statement, of course, will
7 be part of the record of the Commission.

8 There's no further business that
9 the Chair is aware of for the afternoon.

10 We will assemble tomorrow morning
11 at 8:30 in this room and proceed throughout
12 the morning, aiming for an adjournment around
13 1:00 p.m.

14 We are adjourned. Thank you.

15 (Whereupon, at 4:26 p.m. the
16 meeting was adjourned)

17

18

19

20

21

22

A				
abandon 130:14	143:14	adjourned 162:14	158:10	32:7 46:2
ability 29:5 35:5	acknowledged	162:16	afforded 49:20	allows 26:16 37:18
140:10 141:5	116:5	adjournment	afraid 83:5 117:8	alternative 45:15
able 8:16,17 11:12	acknowledging	162:12	117:10	102:10,11,17
31:1,13 45:16	28:7	administering	afternoon 4:12	Alyssa 2:10 3:9
106:7 140:15	acres 17:6 25:1	140:22	6:17 7:19 8:4,12	56:8,15
151:14	106:2 111:19	administration's	10:19 12:14 13:7	amendments 100:4
aboriginal 24:22	acronyms 96:18	5:6	21:13 56:12 61:22	America 2:16,17
57:1 59:9	act 98:5 99:22	administrative	71:22 86:5 96:6	3:13 42:4 108:12
above-entitled	100:5 115:12	10:15	96:13,15 113:12	113:15 118:1
85:16	135:2 140:20	Administrator	159:1,10 162:2,9	122:21 128:14
above-ground	action 27:14	62:6	agencies 15:20 26:1	American 18:17
134:9	147:10	Admiral 143:22	29:9 58:13 86:17	20:2 28:4 56:21
above-regulatory	actionable 136:1	adopt 67:14	agency 26:9 34:14	80:14
67:1	actions 19:11 26:9	adopted 23:8 101:9	147:20 148:2	Americans 29:1
abrogate 26:10	60:17 87:13,18	Adrian 2:14 3:12	157:15	34:10,18 105:19
absolutely 79:3,4	141:4 147:2	96:3,5,7,16 105:6	AGENDA 3:1	106:15 107:21
81:11 122:5	active 63:15 99:7	105:11,17 107:5	agents 35:21	America's 1:1 4:14
academic 22:8	154:1	107:11 108:4,7	ago 36:21 66:14	13:12 28:1 134:20
Academy 82:2	actively 58:16	adult 109:21	82:3 134:2 152:5	140:13 159:14
accept 30:1 139:20	activities 6:3 18:7	advance 37:2	agree 122:7 150:8	161:10
144:8	19:9,11,15 44:10	advanced 37:1	agreeable 18:20	amount 10:3 47:13
acceptable 111:10	135:11	138:14 140:4	agreed 130:8	69:6 70:16 73:7
acceptance 66:19	actual 129:5	141:7 142:1	agreement 18:9	95:1 102:14
91:12 92:11 93:1	adaptability 32:19	advances 136:21	90:6 105:16	125:14 158:6
93:5,10	adaptive 146:3	153:3	ahead 24:17 61:9	amounts 15:14
accepted 66:15	add 4:5 72:3	advantage 129:14	101:22 103:2	46:22 111:12
access 25:18 26:17	124:19	139:13	115:22 155:13	analyses 120:21,22
28:10 29:16 45:22	added 10:7 43:8	adverse 26:6,20	aid 9:2	121:3
49:15 106:5 141:2	65:20 125:3	advice 86:16 88:17	aiming 162:12	analysis 68:21
accessible 44:13	adding 65:1 112:22	88:18 89:19 90:2	air 26:14 49:9	ancestors 43:1 44:1
accident 67:2 74:7	addition 25:13 87:5	90:7 92:8 127:20	60:21 89:5	57:16
accidents 72:16,17	100:15 139:17	127:21	AI 145:12 147:13	ancestral 17:6 41:6
73:12,18	additional 45:19	Advisory 2:12 3:11	147:15	and/or 90:15
accommodate 24:7	63:17 64:17 65:1	85:14,22 86:11	Alaskan 20:2	angles 22:4
68:22	72:3 78:10 97:12	88:14 89:11,18	ALBERT 1:15	animals 25:8
account 28:7 45:20	113:22 114:17	91:20 127:18	Allison 1:17 81:18	announced 143:16
95:10	115:3,3 116:11	128:15	82:19 106:19	answer 34:21 37:16
accountable 141:3	158:1	advocate 38:8,11	123:14 147:14	80:7 83:6 107:6
accumulated 42:21	address 13:22	121:3	150:11	109:5 117:13
accumulation	14:11 50:13 62:20	advocated 76:15	Allison's 152:21	126:7
140:8	75:4 76:2 129:7	97:11	allocated 10:3	answered 78:21
accustomed 25:21	addressed 85:3	advocating 103:15	allotted 8:1	126:19
achievable 138:10	adequacy 52:18	122:8	allow 58:15 70:20	answers 127:5
achieve 146:10	adequate 68:22	affairs 49:13	150:3	135:20 145:15
achievements	89:10 97:18	affect 17:17 58:17	allowed 9:17 144:2	156:6 161:12
	Adjourn 3:22	afford 104:15	allowing 20:19	anticipation 19:10

appeal 131:3	areas 25:9 26:17 128:17,20	B	believe 6:8 10:13 38:22 48:6 55:16 78:22 94:5 98:16 99:10,11,19 101:2 101:14 102:9 104:6 107:16 118:16 121:15 122:6 127:1,12 129:2,9	50:9 56:17 101:6 102:10,21 159:14 161:2
Appeals 5:5	Army 59:6	back 4:20 5:2 30:16 31:18,19 32:1 35:15 48:16 56:6 63:7 80:12 93:4 102:18 105:21 107:11 114:18 143:11	believes 26:12 106:3 122:7 135:19	board 2:12 3:11 85:14,22 86:11,12 86:21 88:14 89:11 89:18 90:3 91:20 95:21 114:21 121:2 127:18,20 128:15
appear 12:22 155:19 157:4	arrived 126:18	background 109:6	beneficial 21:20	boat 39:18
appearance 21:13 108:9 131:20 162:6	art 43:2	bad 39:1 74:9,9	beneficiaries 138:6	boat-load 46:18
appearing 40:8 131:21 159:2,5	aside 10:16	BAILEY 1:14	benefit 136:10 142:9	Bob 114:21
appears 12:22 153:10	asked 50:13 104:18 114:22 115:15 156:18	Bands 2:6 3:4 13:14 16:9	benefited 48:8 60:9	border 80:14
applaud 161:21	asking 156:5	bank 41:8	benefits 50:7 142:2 144:9	born 48:13 57:18 58:5
Apple 114:21	aspect 45:13 83:8 83:10	Baptiste 2:7 3:6 21:7,9,11,15 23:19 32:9 34:19 37:15 38:14,16 39:1,22	Benton 96:21	borrow 91:18
application 5:7	aspects 49:9	Basalt 50:11	best 24:7 28:18 29:18 32:4 34:16 34:21 35:3,10 37:15,16,21 38:7 40:16 132:10 134:15 147:3	boss 56:6
appreciate 8:7 12:9 31:14 34:1 40:19 54:8,21 55:8 56:4 56:5,12 61:4 72:9 92:8 95:20 131:18 133:5 144:14 153:8 157:21 158:14 159:10	assemble 162:10	based 20:4 23:9 28:12 31:21 74:2 75:18 82:22 107:13 146:19	better 38:10 81:8 153:19,20 155:4	bottom 111:17
appreciated 11:3 32:11 52:7 75:2 145:15,17	assemblies 46:9 64:9	baseline 44:10 128:9	beyond 17:18 67:16 76:12	Boulevard 1:10
appreciation 95:21 162:5	assembly 47:2	basement 51:11	big 122:3 154:17	boundaries 17:18 71:9
approach 138:18	assessment 18:12 18:14	basically 113:21	bigger 81:22	boundary 41:5
approached 71:2 142:20	assets 20:14	basis 67:19 94:15 99:16	billion 102:16 110:16 133:19 158:8	bounties 57:11
approaches 19:16 34:16 142:3	Association 68:14 75:6 76:14	beat 120:2	biologic 47:22	break 61:7,12 85:12
appropriate 34:2,5 64:16 66:8 115:6	associations 75:7	beginning 94:7 106:12	bit 22:1 32:18 95:3 149:13	breathe 89:5
approval 76:13	assume 59:10 128:16	begins 78:7	bites 154:19	Brent 1:11,14 7:18 105:9
approved 23:14 105:21	assumptions 77:22	begun 133:22	bi-county 97:3	brief 9:13 81:18 104:22 147:17
approximately 17:6,9 88:2 97:4 99:6 113:4 133:17	assure 101:6	behalf 11:9 13:13 14:16 40:2 56:18 62:8 104:19 108:22 133:1 140:20	blamed 43:18	bring 31:17 32:1 86:18 134:14
April 14:16	attended 123:7	belief 146:17	blending 44:22	bringing 31:19
aquatic 43:14	attendance 136:11		blood 42:16	broad 139:15
arduous 28:17	Attorney 7:3		Blue 1:1 4:14 13:11 20:18 21:17 27:22 28:15 36:8 49:22	broadcast 119:20
area 58:21 60:22 97:3,7 99:5 113:19 121:9 134:4 160:16	audience 9:16			broader 97:8
	author 91:19			broad-based 138:17
	authority 123:2 157:12			Brockman 2:3 3:3 10:22 11:6
	available 7:16 10:1 27:9,13 37:14 97:19 104:3 131:8 137:13			Brooklyn 2:7 3:6 21:7 23:19 55:2
	avoid 26:6 111:14			brought 32:12 70:17 143:19
	avoided 27:20 111:1			Buck 2:10 3:9 56:8 56:14,15 61:3,5
	await 104:12			
	aware 62:19 159:20 162:9			
	aways 115:21			
	a.m 10:2,3			

13:11 22:16 23:2 28:19 30:9 63:1 74:20 86:1,9 89:9 93:4,13 104:22 126:3 151:13 156:14 comes 51:20 60:5 124:8 154:19 156:22 161:12 comfortable 37:9 37:19 coming 4:13 13:3 55:13 71:14 73:22 86:4 90:6 96:5 122:17 126:15 140:18 commend 155:22 commended 92:3 comment 9:14,18 10:1 95:9 commented 9:20 158:6 comments 7:14 8:12 10:18,20 13:1,21 23:4 28:12 31:2,8 33:11 34:20 52:16 71:13 75:2 88:18 92:8 95:14 117:14 122:10 127:15 146:15 commercial 46:6 65:3 69:19 70:10 84:21 100:12,16 103:6,12,20 104:1 133:2 134:1,14 135:1 136:16 138:4 139:8 140:12 142:21 commission 1:1 4:14,16,18 5:4,12 5:14,22 6:6,21 7:7 7:13,15,16 8:3,19 8:20 9:1,3 10:8 11:8 12:4 13:12 13:16 14:4 20:19 21:18 27:22 28:15	36:8 52:5 56:3,18 61:21 62:4 64:15 69:11 71:19 75:18 76:1 85:11,19 96:12 101:6 102:11,21 108:22 115:2 126:18 131:16 132:18 133:6,14 134:21 135:4 136:5,9 137:11 139:13 144:11 152:21 157:10,19 158:16 159:4,14 161:2 162:7 Commissioners 4:3 10:17 33:3 38:21 52:12 60:1 61:9 81:17 92:5 Commission's 5:19 6:1 commitment 105:2 161:20 Committee 1:9 13:11 23:21 common 74:5 common-sense 67:15 74:3,11 communicate 35:15 communication 34:17 communities 6:9 16:1 79:22 98:21 99:9 105:2 160:10 community 6:19 10:10 39:17 49:3 56:20,22 80:5 81:11 92:2 96:19 97:2 98:9,20 99:8 99:20 104:11 106:3,9,11 107:15 107:19 115:16 community's 79:16 105:18 companies 94:17 97:5	compartmentaliz... 54:13 complaint 113:17 complementary 140:3 complete 54:7 64:21 84:10 87:19 completed 137:2 138:22 completely 41:20 completes 10:12 completing 9:3 65:19 104:7 completion 19:17 110:18 complex 19:14 101:2 103:5 135:9 160:22 complexity 62:15 65:2 compliance 14:6 18:10 19:19 complicated 55:9 76:22 148:16 complications 160:4 compliment 12:3 component 25:20 composition 92:15 comprehensive 4:19 18:12 19:1 67:6 concentrate 89:22 concern 14:11 15:3 19:20 140:7 concerned 41:14 52:20 89:12 90:10 concerns 29:9 52:17 63:18 91:14 concise 71:18 conclude 144:17 158:22 concludes 5:15 20:17 71:13 105:4 concrete 134:10 condition 17:21 conditions 44:11	64:3 74:10 141:12 conduct 4:19 6:10 18:13 Confederated 2:4,8 3:4,7 13:14 16:9 40:3 41:2 confidence 72:19 73:1 101:4 135:5 136:3 137:9 138:20 140:10 146:6 configuration 134:9 155:12 confluence 41:6 Congress 95:9 97:18 congressional 7:2 100:4 159:4 Congressman 4:7 conjunction 106:13 consensus 90:3 92:2 115:16 127:19 consent 71:10 79:10 consequences 42:9 43:7 101:11 consider 34:7 138:18 considerable 83:1 consideration 66:12 considerations 102:9 145:19 considered 82:8 139:5 146:22 Consistent 141:13 consolidated 41:15 66:5 70:12 consolidating 139:7 consolidation 68:12 constant 94:22 Constitution 20:4 22:22 construct 90:18	151:1 construction 59:5 87:22 89:15 97:13 consult 26:5 consultation 14:20 16:3 18:18 consume 39:8 consumed 39:9 contact 31:5,10 116:8 containers 64:11 73:4,8 containing 87:10 contains 17:14 contaminants 27:8 47:15 63:4 contaminate 117:6 contaminated 16:19 19:2 43:5,6 contaminates 117:1 contaminating 117:11 contamination 15:14 27:12 29:21 39:9,14 43:13 49:1,14 63:13 111:8 114:13 123:17 context 157:8 continually 137:21 continue 5:14 17:2 23:17 37:1 57:7 58:7 59:8 76:18 130:16 152:4 continued 19:10 45:21 46:5,10 135:21 continues 77:4 102:3 160:15 contract 79:15 contracts 140:22 contractual 97:5 139:20 141:6 contrast 130:6 contribute 124:15 contribution 56:3
--	--	--	--	--

126:5 158:15 contributions 132:11 control 149:22 controls 27:17 92:18 149:16,18 convened 1:9 Convention 1:10 convert 88:2 convince 157:2 convinced 123:8 cooperative 82:14 core 10:13 Corporation 148:14 correct 72:22 92:13 93:5 145:8 correctly 93:8 correspond 105:13 corridor 63:20 130:6 cost 46:10,14 48:12 50:8 102:13 111:1 158:8 costly 91:9 costs 50:1,5 138:2 150:19 Council 2:15 3:12 12:15 13:9 14:21 96:4,17 108:5 114:22 Counties 96:22 countless 42:8 countries 94:3 150:4 country 7:6 37:6 48:8 60:9 75:13 79:13 119:20 146:11 couple 67:12 73:20 117:21 150:13 course 5:1 7:8 8:10 10:4 28:13 32:20 34:7 37:19 52:16 83:22 153:13 162:6 Court 5:4 20:5	cover 130:11,13 131:1 covering 129:19 130:19 coverup 111:20 129:17,19 130:18 Co-Chairmen 11:7 Co-Chairs 1:11 3:2 9:11 159:11 craton 28:4 create 36:18 154:17 created 15:15 32:4 37:8,11 88:7 97:1 136:8 160:6 creation 37:4 Creator 58:19 creatures 57:15 credentials 28:20 cribs 87:8 128:19 128:19 criteria 34:4 91:12 92:11 93:2,6,10 145:19 critical 16:3 19:19 101:15,22 crowd 114:7 crucial 145:19 crushed 47:5 crystalline 51:11 CTUIR 42:20 43:9 43:21 46:2 49:19 CTUIR's 44:5 cubic 118:11 124:20 cultivate 138:20 cultural 14:13 15:8 17:14 26:19 culturally 25:17 culturally-based 22:16 culture 18:15 49:2 curious 52:19 145:22 current 47:12 48:5 129:12 139:9 141:7 153:1 155:5	currently 5:3 27:9 64:12 88:10 89:15 101:17 102:20 133:12 143:2 153:10 curves 27:18 custom 16:12 25:7 customs 22:20 cycle 4:21 5:2 9:4 76:6 103:6,13 138:15 140:4 153:2,20 cyclic 94:14 <hr/> D <hr/> daily 49:12 99:16 damage 30:13 116:20 dark 113:4 date 9:13 88:17 dated 16:14 Dave 2:3 3:3 10:22 11:2 12:11 day 135:9,9 157:20 days 80:12 DC 5:4 de 89:12 deal 32:13 33:20 37:8 39:14 54:17 68:16 69:12 94:10 98:8 135:9 dealing 32:15 147:11 160:5,7 161:12 dealt 69:18 decade 69:22 143:18 decades 37:7 90:17 102:19 134:12 137:1,19 140:18 142:14 160:9 decade's 134:15 December 110:22 decide 54:15 102:19 123:1 152:15 decided 6:7 11:17	42:12 152:6 deciding 128:21 161:13 decision 5:6 14:21 15:3 26:6 48:18 58:16 76:9 113:18 113:21 122:3 152:17 decisions 20:5 28:5 30:19 42:7 53:22 54:6 55:13,15 60:14 76:5 78:2 88:13,22 103:4 111:11,14 134:13 137:1 146:19 161:1 decommissioned 70:11 84:4 deemed 71:6 deep 28:2 34:1,5 37:4 38:5 41:16 44:18 45:11 48:4 51:10 76:15,18 77:6 100:6 111:14 115:18 116:2 121:20 129:2 130:2 deeper 75:11,16 deeply 7:6 defense 44:19 69:17 84:7,22 95:10 97:19,22 138:12 deferring 137:1 definite 147:10 definitely 21:20 degradation 46:8 degree 27:15 49:14 101:19 delay 134:6,13,15 delaying 118:14 Delays 91:7 delegation 7:3 deliberate 59:17 125:15 deliberation 59:20 deliberations 62:11	104:13 delighted 61:17 deluge 145:16 demand 154:10,18 demolition 87:13 demonstrate 138:19 139:2 demonstrating 140:10 demonstration 142:1 Department 2:11 11:1,10 13:13 14:2,4,22 15:13 18:9 19:12 20:1 21:17 23:11 36:10 40:1 41:1 53:13 53:19 55:16 58:13 61:10,16 62:7 65:4,8 67:5 68:3 69:4,16 70:3 82:15 88:20 97:2 97:17 110:21 111:11 112:2 113:8 116:5,8,13 118:12,20 120:7 124:12 128:9 130:8 131:4,5,11 143:2 departments 15:19 18:19 Department's 111:18 112:18 120:21 129:12,21 depend 10:4 43:15 depending 154:9 deployed 139:14 derived 20:11 describing 88:10 description 93:18 design 91:9 155:2 designate 123:2 designated 2:2 97:1 98:3 100:5 115:10 designates 105:22 113:18 designating 123:6
--	--	--	--	---

designation 69:2	dilute 45:1	disproportionate 45:21 49:18	dramatic 99:7	Ecology 124:13
designed 27:1	dimension 92:10	dissolved 47:15	drawn 66:3	125:22
137:3	direct 83:11 86:20	distinct 48:19	dress 49:11	economic 46:3
designing 94:20	direction 4:17	distinguished 61:21 132:18	drinking 39:10	86:14 96:20 97:8
desire 150:21	136:21 152:17	distraction 65:22	49:6 109:17,19	104:10 159:21
despite 81:7	directive 131:15	distractions 65:20	112:21 113:5	economical 141:17
detailed 109:3	directives 18:5	distressed 90:21	drive 91:8 120:2	economics 152:9
117:14 144:20	directly 22:16	distributed 117:14	147:7 154:6	152:10 153:4
details 6:2 63:12	24:12 141:4	123:20	driven 111:11,14	ecosystem 98:2,5
98:18	Director 40:1 41:1	disturbed 106:6	drivers 73:19,20	98:10
determined 94:18	53:12 108:11	ditches 87:8 130:1	74:7,14	editor 156:14
determines 73:6	directs 5:20	diversion 142:15	driving 74:7	effect 30:7
devastating 16:2	discharge 128:19	150:7	drunk 73:20	effective 119:2
develop 18:18 34:8	128:20 130:5	divert 148:22	dry 47:4 64:10	effectively 46:1
67:5 68:10 101:9	discharged 125:16	divested 16:16	134:8	140:11
107:1 142:5 155:9	128:10	Division 62:6	due 43:13 112:5	efficient 150:22
161:9	discharges 112:6	doctrine 20:10	dug 128:22	effort 8:8 19:1
developed 20:2	118:19 125:14,19	documented 87:1	dump 113:20	62:18 82:14 99:19
68:8 74:18 142:8	discuss 114:2	DOE 3:3,10 4:5	118:11	106:12 118:18,20
142:10	discussion 8:2	24:6 31:18 34:12	dumped 114:1	154:2 160:12,15
developing 34:13	53:14 70:1 106:16	34:14,22 45:6,16	durability 146:2	efforts 58:11 93:20
50:15 144:13	107:14 150:15	82:20,21 98:1	durable 136:14	138:16 144:5
153:15	discussions 128:4	99:21 105:21	duty 26:5,7	160:21 161:4,8
development 2:14	disposal 9:8 10:12	106:14 113:17	dynamic 20:7	EIS 110:22 112:17
3:12 44:12 66:19	13:18 19:3 24:14	118:7 124:2,4	dynamics 22:8 28:9	116:13 127:16
82:12 96:4,17,21	26:14 27:3,5,8	126:7,21 127:11	127:7	either 45:13 71:6
97:9 104:10	33:18 34:2,5,9	129:18 145:4	<hr/>	84:15 85:6 96:12
105:12 106:2	36:20 45:4 50:15	DOE's 47:14 128:6	E	123:3
141:22 153:20	59:18 62:11 64:18	DOE-RL 2:3	earlier 79:6 105:14	elder 29:15 56:19
developments	68:12,17 70:5	doing 40:20 54:22	107:14 110:2	electricity 99:17
161:10	75:4,5,8,11,14	72:20 112:15	115:15 127:18	133:19
dialogue 11:19	76:10,15,19 77:6	127:12 149:16	146:15 150:16	element 139:5
88:19 133:6	78:12 79:1 84:13	161:22	158:5	140:3 141:11
die 109:21	87:15 89:20 93:12	Domenici 1:15 9:5	early 60:11 106:13	elements 67:15
diesel 99:14	97:22 98:17 111:9	117:20 118:6	143:13	eliminate 65:10
different 45:1	116:14 118:22	119:1,6,9,12,16	earn 120:6	70:19
46:14 71:15 82:6	136:16 138:7,11	119:21 120:4,8,12	Earth 47:11 49:12	eliminating 139:22
86:12 91:11	138:11,16,20	121:7,16,22 122:9	easier 103:3	Elizabeth 2:19 3:19
105:19 127:6	140:3 141:20	122:12 123:11	easily 100:22	158:19
129:6 142:7,8	142:20 143:1	155:16 156:16	Eastern 159:16	eloquent 52:6
157:7	145:20 161:4	door 119:22,22	easy 12:7 38:19	eloquently 110:2
difficult 55:9 65:1	disposals 123:3	dose 110:1	55:12 80:20 144:5	EM 24:13
93:4 94:15 127:6	dispose 27:1 30:10	downriver 63:3	161:12	emphasis 52:8
160:20	88:7	Draft 65:6 110:21	easy-going 120:14	59:16 72:2 92:1
difficulty 60:16	disposed 28:2 32:3	111:22 123:21	eat 39:13	employee 120:15
dig 48:2	45:11 88:4 130:2	disproportionate 45:21 49:18	ecological 26:18	employers 147:6
digging 47:11	disposing 115:3	dissolved 47:15	27:15	empowered 140:20

emptying 118:14	enhanced 141:17	established 100:1	exercised 16:22	facilitate 31:13
enacted 18:4	enhances 136:3	establishing 18:8	115:13	35:10 153:19
encompass 24:22	enjoyed 128:3	18:22	exercising 56:22	facilities 6:14 26:22
encompasses 69:9	enormous 15:14	establishment	exist 138:13	87:6 90:20 93:13
70:3	Enrichment 148:13	26:22	existed 26:21	142:14
encompassing 41:9	ensure 18:10 66:18	estimates 46:14	existing 20:6 26:10	facility 66:9 71:7
encourage 7:12	97:18 107:1	47:14	65:11	79:8,22 80:2
endeavor 138:17	135:21 136:6	et 53:15	expanding 15:5	84:17,17 85:4
ended 118:18	137:4	etcetera 109:6	expect 36:11 74:19	94:9,19 99:18
endure 144:13	ensuring 17:22	112:11 116:21	expected 65:12	139:1,12 141:21
end-state 31:6 44:5	19:18	eternal 48:9	117:5	152:11
52:8	entails 45:19	Europe 46:21	expeditiously 92:18	facing 11:16
energy 2:11,18	entering 109:15	143:19 148:20	92:21	fact 79:12 94:13,16
3:16 4:17 5:18	140:21	European 142:14	experience 59:4	99:4 106:12
11:1,10 13:13	entire 45:8 48:8	evaluate 54:1	64:4 68:21 72:13	157:20
14:4,18 18:9,19	49:8 98:9 115:17	137:12	75:19 80:10 83:1	facto 89:12
19:13 20:1 21:17	143:11 160:14	evaluated 50:2	83:11 84:12 86:20	factors 28:7
23:11 30:22 32:3	entirely 85:4	event 71:5	expert 122:19	fade 91:5
36:10 53:19 55:16	entities 138:5	eventual 78:12	experts 120:17	fails 53:7
57:2 58:13 59:13	entity 140:14,20	eventually 59:11	explained 30:7	failure 15:20 94:9
61:10,16 62:7	145:5 147:20	76:5 78:20	50:3	failures 137:6
65:5,8 67:5 68:3	entrance 73:22	everybody 12:8	explored 142:18	fair 59:17
69:5,17 82:15	enumerated 16:16	13:8 46:4	exposed 26:20	fairly 8:5 45:15
88:20 97:2,18	environment 14:14	everybody's 155:21	48:14	73:12 81:16
99:11,12 100:15	33:22 41:21 48:21	evolve 43:12	exposure 49:14	fairness 146:10,10
104:2,9,19 111:10	72:18 148:16	evolving 24:9	express 22:6,15	146:11
111:18 112:2,18	160:10	exactly 30:3 35:1	132:9 162:4	fall 106:13
113:8 116:5,7,12	environmental	36:8 93:14	expressed 41:11	false 94:7
118:12,20 120:7	14:9 24:3 43:2,9	examination 70:2	exquisite 43:2	familiar 136:9
120:21 128:8	65:6,15 86:14	80:16	extend 25:9 71:20	families 29:12 89:7
129:12,21 130:8	87:3 112:1 123:22	examine 130:4	108:5 133:14	famine 42:22
131:4,5,11 132:5	146:8 159:21	examining 63:9	extended 9:18	far 24:13 111:9
132:7,20 133:8	161:16	128:18 152:22	extensive 64:4	114:10 123:6
134:17,20 135:18	envisioned 77:11	153:7	83:16 102:13	153:22 154:3
137:10 143:3,7	EPA 130:7	example 54:3 70:1	extensively 127:14	farther 144:3
148:3 154:1,10,18	equal 102:14	147:5,20 148:4,17	128:1	fashion 31:11
Energy's 14:2,22	equals 110:13	149:5 151:2,12	extent 62:15 63:12	60:18 144:10
15:13 70:4 110:21	equation 76:4	157:10 161:7	126:5 142:22	faster 118:16
Enforceable 45:9	equity 48:11	examples 98:15	extraordinary	129:11
enforcing 8:5	Ernie 1:18 53:10	excess 99:10	17:11 19:8	fatal 110:6
engage 88:19	81:18,20	excluded 17:5	eyes 59:19	favor 118:8
engaged 80:5	especially 32:10	excused 108:8		feat 90:7
engagement 60:10	75:19 76:21 97:21	executive 15:19	F	federal 2:2 6:5
90:8	144:19 161:5	20:5 23:20 108:11	fabrication 46:19	15:19 17:4 19:9
Engineering 40:2	essentially 113:19	132:19 155:20	fabulous 131:17	20:6,9 26:22 29:8
41:2 53:13	116:10	exercise 17:2,21	face 63:1 65:22	35:21 58:12 63:8
engineers 22:11	establish 138:10	59:8	faces 114:7	67:12 71:6 80:2

88:20 133:21 139:18 140:11 federally 14:5 16:21 20:15 24:20 26:3 federal-tribal 16:4 feel 24:18 31:5,10 39:1 103:11 156:5 feels 31:8 91:20 feet 118:11 124:20 130:2 fiduciary 25:22 field 31:3 44:16 figure 78:19 figures 123:16 figuring 106:22 filing 113:16 filling 12:7 final 83:13 87:15 102:18 138:19 158:17 finalist 115:11 finally 10:6 12:2 63:14 finance 142:5 151:1,15 finances 150:20 financial 90:14 financing 140:15 find 28:17,21 33:20 38:4 finding 35:4 83:19 130:12 finish 51:6 firm 114:14,15 first 7:20 12:14 21:16 36:16 50:16 64:15 76:8 77:1 80:15 84:11 85:5 98:22 103:8 110:9 143:8 156:21 firsthand 6:14 11:15 fish 25:6 39:8 110:4 fit 154:21 fix 127:5 fleece 96:11	flexibility 32:18 flood 42:22 floor 10:16 flowing 109:13 127:7 flows 57:6 focus 63:16 65:18 72:10 77:3,15 78:18 83:8 87:22 113:16 focused 89:16 99:5 focuses 68:19 folks 81:4,5 follow 8:17 33:1 72:11 88:16 103:9 115:1 121:12,13 147:18 156:17 following 9:1 69:2 136:4 141:12 152:20 159:12 food 49:4 footnotes 109:6 footprint 99:7 forefront 161:8 foremost 50:16 64:15 forever 30:9 43:13 form 77:5 88:3 formal 7:22 14:19 71:13 formally 11:8 format 22:4 formed 4:16 9:2 former 64:7 95:8 95:12 forms 87:13 138:12 formulated 23:4,6 formulating 15:22 forth 35:15 forward 7:10,11 8:11 12:17 79:14 80:1,8 84:6 86:2 104:6,6,13 132:13 134:21 136:2 144:16 161:18 forwarded 126:17 foundation 23:10	founded 31:20 fraction 120:6 France 102:5 150:9 Franklin 96:22 frankly 76:10 101:12 FRAZIER 2:2 4:3 4:11 free 24:19 31:5,10 143:19 156:5 Freedom 131:12 French 94:17 151:17,22 152:3,4 friendly 58:8 front 29:8 36:8 48:15 123:20 161:1 fuel 4:20 5:2 6:16 9:4 46:6,8,19 47:1 47:15 64:9,11 65:2,4 66:17 67:18 68:20 69:19 70:1,10 77:9 82:5 84:4 99:14 100:12 100:17 103:6,12 103:13 104:1,9 133:3 134:1,4,6,8 135:1,10,19 136:2 136:7 137:20 138:8,14 139:6,7 139:9,21 140:4,8 140:12,13 141:1,8 141:10,11,17 142:16,17,21 143:1 144:12 147:12 151:11 152:8 153:1,20 155:11,11,14 fueling 151:13 fuels 142:8 fulfilled 69:5 full 7:16 8:3 17:21 42:6 78:17 80:4 119:3 fully 44:7 65:19 full-time 120:15 function 140:16	fund 133:18,20 141:3 funding 91:3 94:14 95:2 97:18 funds 133:21 further 24:10 27:11 38:12 51:8 53:9 61:2 81:14 95:6,13 106:17 108:2 123:9 126:10 145:11 162:8 future 1:1 4:15 13:12 17:16 28:1 28:8,9,10 29:11 30:19,21 32:15 47:10 52:1 85:2 89:6 93:11 105:12 112:15 114:5 121:5 123:3 133:3 134:14,17 137:7 137:14 138:16 139:3,9 146:20 152:16 155:13 159:15,21 161:13 161:19,21	64:18 114:6,11 136:17 137:9 154:13 155:5 generations 17:16 29:12 32:15 42:8 50:5 63:1 89:7,9 112:15 114:6 121:5 146:11 genie 48:15 gentleman 22:18 geographic 71:9 geologic 28:3 34:2 34:5 37:4 38:5 41:17 44:18 45:4 45:11 48:4 50:11 51:10 70:5 76:10 76:15,18 77:6 78:1 85:4 93:3,12 93:20 100:6 111:14 115:18 116:2 121:20 138:7,11 geological 19:3 geologists 22:11 Georgia 53:1 Gerald 2:16 3:13 108:10 getting 35:18 38:21 78:16,16 99:3 147:1 giant 80:8 give 6:13 11:15,18 83:6 95:21 114:1 122:1 147:19 given 31:15 72:13 glad 117:12 119:11 119:18 glass 88:4 92:15 globally 150:3 GNEP 110:22 go 24:17 36:9 37:21 47:7 50:14 61:9 64:12 67:15 75:10 75:15 78:19 98:11 107:11 109:7 115:22 129:2 147:9
G				
			gain 84:12 142:9 149:22 gained 64:3 gallons 88:2 99:14 110:11 game 78:4 game-changer 144:2 garner 66:18 gather 25:7 145:3 general 4:7,8 7:3 83:19 generally 67:9 generated 15:11 33:17 generating 15:12 46:22 97:14 133:9 generation 43:4 57:21 62:10,15	

goal 26:13 151:10 151:11	62:8 71:10,21 79:10 115:13	22:21 29:3	handled 160:7	125:19
goals 137:5 142:11	Governors 68:14	guarantees 25:5	Hanford 2:12 3:11	happening 35:19
goes 22:6 41:6 53:3 126:1	70:22 71:11 75:6 76:13 79:8	guarding 146:5	6:3,7 11:11 14:2	35:22 88:10 147:1 150:6
going 7:11 30:15	grandchildren	guess 34:20 81:5 156:2 158:1	15:13 16:18 17:1	happens 107:18
36:5 47:7 51:21	114:8 146:16	guide 53:21 54:6 137:7	17:10,11,12,17,20	happy 96:14
55:14 64:20 77:2	Grandridge 1:10	guy 120:14	18:6,13 19:16	104:20
77:20 79:1 80:12	granite 121:21	guys 28:16 31:22 39:3 40:19	24:13 25:10,11,12	hard 22:7 30:1,1,16
81:3 84:6 91:16	graphics 109:5		25:16 27:4,6	55:12,14 144:7 148:11
94:18 95:1 107:17	great 1:9 15:3 24:4 37:8 80:9 94:10	H	29:18 30:12 33:19	Harris 2:8 3:8 40:1
109:4 114:12	greater 49:1,14 116:11 142:9	HAB 86:9	36:15 41:10,19	40:5,8,9,16,18,22
117:6 119:13	Greater-Than-Cl...	Hagel 1:16 9:9	42:19 43:5,8,22	50:17,20 51:1,5,9
123:1 126:19	27:3	74:22 78:22 95:11	44:6,6 45:5 46:14	52:4,14,21 53:11
127:5 130:11,13	Greater-Than-Cl...	126:13 128:6	48:7 49:1 50:2,10	54:8 56:2,5
147:12 148:21	27:4	129:4,13 130:17 130:21	52:19 58:22 59:5	Harry 14:17
152:7,7 154:22	greatest 27:15 55:5 143:12,14	half-life 91:2	59:10 62:13,16	hasten 95:5
156:12,17 157:5	greatly 11:4	Hall 1:9	63:6,9,15,17,20	hazard 47:19 73:6 73:15
good 4:12 7:19	green 12:19	Hamilton 1:10,13	63:22 64:16,22	hazardous 13:10 13:19
11:19 13:7 31:3	Gregoire 9:11	4:7 7:17 12:11	65:18 66:8 69:21	headed 9:5,7,8
31:19 32:18 46:6	grew 35:14	20:21 21:6,12	72:4 75:20 76:6	heading 113:6 115:5
55:17,17 61:8,21	grip 114:14,15	32:9 33:7 36:12	76:21 77:1,3,21	Headquarters 4:5
66:7 72:11 74:7	ground 17:13 38:8 47:3,9 111:16	38:12,18 39:21	78:13,20 83:9	heads 15:18,19
83:6 96:15 102:3	grounds 29:19 131:6	40:12,17 50:17,22	85:13,22 86:11,13	health 14:14 15:7
113:12 121:12,14	groundwater 26:15	51:3,7 52:3 53:8	86:20,22 87:15,18	18:1 27:15 33:21
121:19 122:2,8	49:6 63:13 65:13	55:22 56:7 59:15	88:11,14,16,21	49:2 89:8,21
128:3,4 145:10	90:13 110:5,7	60:3 61:1,6,20	89:1,11,12,18	121:5 135:11,21
148:15 151:2	112:4,13,20 113:3	71:17 74:21 79:5	90:9 91:4,20	161:16
gotten 83:7	116:21 117:1,6,11 125:2,7	81:14 82:19 83:13	97:10,21 98:3,14	hear 6:8,22 7:8
government 6:19	125:2,7	85:8,19 91:22	98:19 99:3 100:10	9:16 11:4 71:15
10:10 14:7,20,20	group 118:3	93:16 95:6,13,16	103:14 104:3	85:20 100:20
16:4 17:19 19:9	groups 6:20 7:11 86:15 107:21	95:20 96:2 105:5	105:12 108:22	119:16 122:6 127:9
20:3,9 23:10,15	131:13	106:17 108:2,8	109:10 110:10	heard 75:6 77:19
24:21 35:13,16	grow 35:11 36:4,11 112:21	117:15 123:9,13	111:5,20 113:19	87:20 100:17
48:10 51:16 63:8	growing 15:4	126:10 131:19	114:1,4,12,17	105:14 110:2 127:8
67:13 80:3 82:7	grown 25:21	132:4,16,17	115:4,9,9 116:4,7	hearing 6:18 7:10
86:13 94:14,20	grows 24:8,8 35:12 134:18	144:18 145:10	116:14,19 117:5	Heart 2:16,17 3:13
97:7 139:19	growth 154:22	147:13 150:11	118:4,7,10,21	108:11 113:14
140:11 141:5	guaranteed 17:3	152:19 155:15	127:2,17 128:17	118:1 128:14
145:5 148:7 151:6 152:6		157:18 158:13	131:9 159:16	heat 141:19
governments 14:5		162:3	160:18 161:7,15 161:18,19	heavily 76:12 83:7
19:5,13 35:20		handful 68:1	Hanford's 62:20	heel 126:6,8
48:20 51:14		handle 101:1	111:8 159:20	
government-to-g...		103:21 142:8	160:8	
19:22		147:12 148:13	happen 77:7 82:18	
governor 7:1 9:11			85:7 107:17 111:2 151:15	
			happened 46:9	

heels 126:3	31:13,15,17	26:6 27:19 49:18	49:21 58:13	157:6
held 141:3	hoping 28:21 30:18	50:3 81:12 90:12	110:21 112:8	input 7:13
hello 56:6,14	host 66:8	impediment 93:11	138:12	insight 64:4
help 66:17 83:11	hosting 11:3	imperative 31:9	incorporate 66:22	insights 83:17
99:20,21 135:14	house 98:17	implanting 19:7	incorporated	inspections 74:15
137:7,12 156:4	huge 47:13 87:5,19	implement 19:21	136:22	instance 69:15
helpful 22:4 33:14	122:21	67:5	increase 140:9	112:19
hiding 130:18,22	human 27:15 33:21	implementation	increased 90:22	institution 83:3
high 13:18 47:3	65:15	129:5 136:20	increasing 134:20	institutional 27:16
72:19 84:7 103:9	hunks 154:18	implemented 68:9	indebted 53:17	integrated 137:17
126:8 143:1	hunt 25:7	101:10 138:2	indefinitely 64:10	142:22
highly 66:16 67:9	hydrogeologists	implications 66:13	independence	Integration 54:16
73:13 131:14	121:1	113:11	84:10	integrity 31:19
high-level 6:16	hydrologists 22:11	implore 29:10	independent 18:12	32:1
11:14 15:1,15	hypothetical	implying 130:17	120:22 134:17	intend 44:3
27:6 28:1 41:14	111:13	importance 6:4	145:1 147:19	intended 19:19
42:1 44:18 45:3		33:15 146:2,5	157:14	intent 84:16
45:10 47:8 48:7	I	160:12 161:14	Indian 2:9 3:7 14:6	interaction 60:7
63:9 65:3 66:11	IAEA 150:5	important 5:10	20:2,8 40:3 41:3	97:10
68:16,20 69:17,20	Idaho 25:1 98:13	20:10 46:11 59:19	56:21 58:2 105:13	interactions 34:17
74:20 82:5 84:22	143:3	62:12 78:13,15	indicated 52:17	interest 6:9 7:12
86:10 88:6 89:13	idea 37:9 46:7 66:7	84:1 92:10 102:9	65:8	15:5 86:14 106:9
90:1,11,15,16	80:19 84:3,18,19	106:22 136:11	indigenous 17:1	118:3 127:7
91:4,8,10,14	93:1 115:2	161:3	individual 98:2	134:16 153:14
98:11 100:2,7,11	ideal 136:19	importantly 72:16	individuals 7:5	interested 79:19
100:14 103:17	identification 91:7	impose 48:9	75:7	83:2 93:22 123:15
110:11,14 137:16	identified 25:15	imposition 79:17	industrial 106:1	146:12 150:12
137:21	identify 34:5 100:1	impositions 59:4	142:13	interesting 101:15
hiring 10:13	identifying 34:4	impossible 103:16	industry 48:12	interests 18:4,6
history 15:20 87:1	II 60:14 98:22	impressed 11:20	133:2 135:6,19	86:12 90:6
97:10	illegal 47:9	157:19	136:6,12 137:10	intergovernmental
hitters 125:6	illuminating 62:14	impressions 36:14	138:5 140:19	19:20
hold 100:22	imagine 90:4	improve 142:2	151:3,6 158:9	interim 27:14
home 58:1,20 64:7	immeasurable	improvements	inevitable 140:16	37:10 45:18 51:21
homeland 30:20	144:9	136:22	information 22:2	70:13 71:1,5
42:18	immemorial 17:2	inappropriate 5:12	31:6 54:11 55:20	90:11,16,20 91:5
homelands 41:5	17:14 25:15 58:2	128:16 156:7	126:17,20 131:12	139:4,11,17 140:2
56:18	immobilize 48:3	incidents 68:1	infrastructure	140:6
honored 11:12 31:1	immobilized 41:15	inclined 156:10	46:13	Interior 18:19
hope 29:5 30:19	immovable 143:20	include 6:2 15:21	ingredient 16:3	intermediate-term
31:3 43:11,14	impact 34:10 49:1	18:8 46:7 136:15	inherent 73:3	66:6
78:21 81:5,8	65:6 92:14 112:1	137:18	inherit 91:17	international
99:13 106:15	123:22 125:1	included 36:1 50:5	initially 19:6	142:16
107:18 110:9	146:19	51:14	initiate 18:11	interning 108:17
122:19 124:12	impacted 15:10	includes 26:4 49:8	inject 5:12	interrupt 120:9
hoped 69:21	62:9 63:4 89:10	110:5 141:17	innovation 137:8	129:15
hopefully 30:8,9	impacts 19:8,10	including 42:18	innovative 153:11	interstate 64:1

intertwined 48:21		know 5:10 9:1 28:8	large-scale 69:1	lessons 81:9 139:3
introducing 23:18	J	28:19 30:6 40:17	Lash 1:17 9:9	letters 31:8 156:13
inventory 47:12	jacket 96:12	42:11 55:10 64:11	36:12,13 79:6	letting 159:9 162:1
149:18	jackets 96:11	69:15 82:10 83:2	93:17 95:8,15	let's 101:4 115:21
invested 46:17	January 23:8	91:18 96:13 100:9	145:13	120:1
investigate 119:13	Japan 102:5	119:1 120:5,8	late 65:7 105:21	level 13:19 22:13
investigating 42:5	Jeff 2:20 3:19	122:2 125:8 126:4	Laughter 107:10	39:13 47:4,6
investment 141:16	158:18	129:15 131:12	law 23:1 26:10 29:2	72:20 73:6 80:17
invitation 133:1	Jim 14:8	136:9 147:20	36:2 49:8,10	83:21 84:8 100:3
involve 36:3 62:3	job 12:7 31:19	knowing 78:3	36:2 49:8,10	103:10 109:20
66:21	55:17 120:19,20	knowledge 11:16	103:9,9 108:17	143:2
involved 6:14	131:17 152:22	36:22 43:3 63:14	113:14	levels 27:11 39:8,11
23:12 55:3 81:11	157:21	75:19 83:22 146:4	laws 20:7 30:2	45:1
88:11 107:16,22	jobs 50:8	known 25:10 28:7	31:21	liability 139:22
115:17 135:15	John 1:20 158:3	58:21 70:15 96:17	lead 96:20	liaison 10:10,11
involvement 39:15	joining 56:11	knows 142:12	97:17	license 133:12,15
63:6	108:15 132:12	Kulongoski 62:8	leaders 41:11	licensed 139:12
involves 11:14	joke 127:21	K-basins 46:9	leadership 144:7	licensing 101:21
24:12	joking 29:16		leads 46:13	138:21
involving 148:7	Jonathan 1:17 9:9	L	leak 47:16	lies 30:19
in-site 110:16	36:12 79:5 92:6	lack 46:10,12	leaking 92:20	life 25:21 43:14
iodine 113:3	93:16 95:17	lady 122:18 123:8	leap 80:8	57:9 59:2
116:20 125:5	145:12	Lalique 41:9	learn 37:8 84:5	lifestyles 48:20
iodine-129 124:8	journalist 131:13	land 17:1 23:1 25:9	learned 31:4 68:2	life-cycle 50:1,6
irradiated 64:9	Jr 3:5 13:8	29:13,17 30:15	92:9 132:6 143:12	life-ways 44:10
isolated 41:16,20	July 1:6	33:18 51:22 57:5	155:6,20	light 12:19,19,22
isolating 48:4	jump 115:22	57:14,16,17,19	learning 79:12	12:22 15:4 49:9
Isolation 50:12	June 16:14	58:3 59:1,4,7	leave 39:5 111:16	liked 93:17
67:8	jurisdiction 105:15	60:21 91:17 99:10	leaving 50:1	likelihood 67:2
issue 55:4 71:1,12	justify 141:15	105:20 106:15	Leckband 2:12	74:6
75:5,8,10,12 76:2	K	111:4,6,9	3:11 85:13,21	likewise 72:3 78:5
76:11 81:22 102:1	keenly 159:20	landfill 116:14	86:1,7 93:14 94:5	limited 70:15 78:9
103:18 104:4	keep 7:21 32:1	landfills 112:8	95:19,22	81:16
127:8	74:16 102:20	113:7 116:19	led 16:1 118:18	limits 8:6
issued 90:2 110:22	keeping 6:6	lands 16:11,21 17:7	Lee 1:10,13	lines 22:7
124:3 127:19	Ken 2:11 3:10	20:14 25:16,18	left 12:21 33:17	linked 161:17
issues 7:7 13:22	61:11 62:5	41:6,10 42:19	43:1 45:4 47:13	liquid 46:22 47:2
14:11 62:3 68:2	Kennedy 143:16	49:15	87:17 109:11	110:11,13 118:19
77:19 78:5,12,18	Kennewick 1:10	landscape 29:22	legacy 15:6 43:1,8	128:20 130:5
83:21 88:22 89:21	kept 29:4	49:9	48:16 62:21 97:19	list 83:17 126:1
106:15 135:9,14	key 136:4	language 32:7	160:9	127:11
147:11	kidding 120:5	40:21 43:2	legal 45:16	listen 57:14
issuing 14:19	kind 22:6 29:15	large 46:22 63:7	legally 45:6	literally 129:20
item 3:1 89:17	145:5 146:8	67:11 86:15	length 94:6	130:19,20 131:1
158:17	151:17	103:21 154:7	lengthy 69:3	154:12
items 104:8	kindly 21:4	larger 134:19	lesson 110:9 111:5	little 21:22 22:1
	knew 6:12	largest 118:3	143:12	75:11,16 103:3

149:12	looking 36:19	83:3 135:1 140:12	66:15 73:5,10,13	124:1,5,7,17,22
live 29:12 57:7,15	70:14 75:21 76:20	155:14	73:15 84:13 93:12	125:4,8,18 126:2
57:22 59:2 89:4,7	143:11 152:2	manageable 69:13	matter 42:1 85:17	126:9,13 127:17
110:4	153:6,16 154:2,12	managed 44:1	119:10 150:20	128:6 129:4,13
lived 42:15 57:6	155:1,13 156:20	management 13:18	matters 5:1,5 6:21	130:17,21 145:13
livelihoods 89:8	looks 64:20	14:10 18:21 24:3	10:15	147:16 148:6,10
living 42:8 43:6	look-ups 11:22	48:17 54:11,14,17	mean 84:10,11	148:18 149:3
load 91:1 154:22	loss 49:15	55:1,19 59:18	92:22 129:17	150:10,12,17
local 6:19 49:3	lot 24:2 29:8 32:19	60:11 64:5 112:1	130:19,21 148:6	151:3,7,16,21
51:13 58:12 71:3	35:8,17 38:10	123:22 127:15	156:12	152:12,20 155:16
71:15 86:13 97:6	46:17 53:14 73:3	128:4 133:4	meaningful 33:1	156:16 158:4,12
locate 93:20	96:10,18 125:12	135:10 136:2,7	means 33:19 39:16	members 1:12 3:2
located 16:20 17:9	125:13 143:8	137:15,17 138:3,8	44:8 57:4 83:22	10:7 17:5,16 18:2
42:2 71:8 79:9	155:7	139:6 140:14	93:8 109:19	18:15 26:18 39:17
104:2 121:21	love 51:9	141:1,10,11	135:17	44:13 61:21 86:15
133:10	low 47:5 100:2	142:20 143:1	meant 149:13	95:9,12 105:8
location 58:22	154:12	144:12 145:1	measured 109:16	108:21 109:1
64:16 66:8 154:9	low-activity 44:22	147:19 156:19	measures 18:15	114:21 117:18
locations 8:17	116:17,22 117:10	160:1	medicines 49:5	118:4 127:20
lodges 49:7	124:9	manager 11:1 14:8	meet 45:16 78:1	132:18 159:3
logistics 82:4	low-level 98:13	manages 51:15	139:19 141:5	memorandum
long 28:17 33:22	124:20 131:6	145:6	142:11 146:9	15:18
36:16,17 42:14		managing 4:20	meeting 1:4 4:13	memories 43:16
44:2 45:22 66:14	M	mandate 5:17	8:14,16 9:19 10:9	mention 69:16
72:20 83:17 91:1	MacFARLANE	45:10 133:7	131:14 159:12	mentioned 22:22
91:6 97:9 114:10	1:17 82:22 106:20	Manhattan 17:4	162:16	83:7 84:7 100:9
152:5 154:14	107:8 123:15	48:9 87:2	meetings 8:15,19	102:4 122:10
longer 32:21 42:16	124:1,5,7,17,22	manner 23:17	9:21 81:3	146:2,3
43:8 127:22 144:4	125:4,8,18 126:2	26:16 28:6 30:11	megawatts 99:17	mere 43:16
long-term 32:11	126:9 150:12,17	32:4 67:17 134:11	154:14	Merkley 2:20 3:19
53:21 54:6 65:10	151:3,7,16,21	138:2 142:10	melters 53:3	158:18
90:15,19 93:20	152:12	mantra 121:13	112:11	Merkley's 159:6
106:14 117:3	main 13:22 113:16	map 125:9	member 9:16 33:5	Meserve 1:18 9:7
137:18 138:3	124:10	maps 123:16,18	33:9 36:13 52:14	52:14
145:20	maintain 59:8	131:6	53:11 55:21 60:2	message 87:19
look 7:10 8:11 55:7	90:19 149:18	marathon 89:2	60:4 72:8 74:22	met 137:5
69:11,13 70:9	150:5	93:19	78:22 79:6 81:21	method 152:1
74:4 84:19 93:8	maintained 74:8	marketplace 142:6	82:20,22 83:15	methodology 37:21
106:14 121:20	maintaining 56:22	Mary 10:9	92:7 93:17 95:8	Mexico 98:12
122:19 129:22	major 62:18 68:6	massive 110:19	95:11,15 97:5	microphone 10:22
132:13 134:20	115:20	match 91:10	106:20 107:8	33:8 40:13,14
144:15 145:20	makers 48:18	material 28:10,11	114:22 117:20	midst 87:21
148:13,17 150:19	136:18	41:17 68:7 137:16	118:6 119:1,6,9	mighty 157:19
150:21 152:15	making 26:6 43:19	138:13 141:20	119:12,16,21	migration 54:18
154:20 155:10	58:17 122:4	149:10,19 150:1	120:4,8,12 121:7	miles 17:9 47:17
161:18	man 143:17	materials 13:20	121:16,22 122:9	59:7 63:2,22
looked 80:19	manage 46:2 49:12	33:12 49:5,19	122:12 123:11,15	67:22 87:7,9 99:6

100:19 105:22 109:11,13 110:4 125:21 128:10 129:22,22 milestones 45:9 million 25:1 67:22 88:2 110:10 118:11 124:20 133:18 mind 64:13 150:18 156:4 mindful 32:14 minds 55:5 98:8 161:9 mind-set 60:19 mine 120:13 minimize 67:1 111:11 minimized 47:5 minimum 102:13 mining 46:19 48:15 Minkler 2:17 3:14 108:16 113:12,13 minor 68:1 minute 12:21 109:18 minutes 7:22 12:21 85:12 missed 158:3 mission 65:21 missions 64:18 97:12 98:22 99:2 mistake 43:19 89:17 mistakes 73:19 misunderstood 146:1 mitigation 45:20 mixed 98:14 100:2 124:20 151:12 mobility 147:8 model 82:12,17 150:19 151:14 modes 69:3 modular 153:12 154:1,4 155:10 moment 113:11	money 36:18 46:18 55:4 90:18 94:21 95:1 monies 141:4 monitor 150:6 MONIZ 1:18 53:11 55:21 81:21 82:20 Montana 25:2 moon 143:17 morning 6:18,22 10:2 11:3,13 21:18 36:15 61:17 62:14 75:2 77:20 86:3 97:15 104:18 132:6,12 134:4 145:14 159:5 162:10,12 Mountain 5:8 15:1 45:14 69:5 98:6 98:12 100:6,21 101:12,18 102:12 103:20 106:8 111:13 115:11 138:22 158:7 move 80:22 103:1 104:6 130:16 moved 63:14 79:13 movement 54:18 147:10 moving 37:6 47:16 61:7 82:4 84:16 101:22 136:1 147:4,6 152:17 multiple 138:12 mutual 58:14 mutually 18:20 myriad 125:12	17:12,13,22 18:4 19:4,8 20:19 46:17 47:9 68:5 70:12 73:11 81:1 82:16 99:21 103:11 104:12 152:15 161:5 national 68:10 79:16 82:2 88:5 91:3,8 98:1,21 102:8 118:10 131:12 134:7 nationally 46:12 nations 20:8 102:4 149:6 nationwide 133:20 nation's 14:9 15:9 100:1,6,14 101:1 103:1,4,6 133:3 134:16 138:9 143:14,22 144:11 Native 18:17 20:3 28:22 34:10,18 80:13 105:19 106:15 107:21 natural 18:11,13 23:21 43:21,22 44:1 46:1 48:22 49:8 57:20 143:9 nature 28:14 30:17 naval 143:13 144:1 navy 98:14 144:1 near 137:18 nearby 133:10 nearest-term 153:11 nearly 59:7 103:16 near-term 78:14 139:6 140:3 necessarily 78:3 95:5 necessary 18:16 34:16 69:7 70:5 71:7 128:12 138:8 147:3 160:13 need 31:12 32:18 33:20 34:7 35:14	57:1 59:12 65:20 67:17 78:1 79:16 84:22 90:14 93:8 96:12 100:1 107:19 116:2,10 116:16 117:5,7 141:18 146:3 149:16,17 153:18 154:15 155:22 157:4,6,14 needed 59:2 67:13 67:14 91:9 142:6 needs 24:7 28:10 44:17 51:12 65:18 66:22 77:15 79:17 81:10,12 92:3,15 92:17,20 103:11 128:21 129:2 134:20 146:21 147:9 150:4 154:8 negative 27:19 negotiating 79:21 negotiation 79:15 Negotiator 80:13 neighborhood 102:15 neighbors 39:7 neither 158:12 neutral 41:18 Nevada 5:8 15:2 107:18 never 69:5 new 4:21 65:20 70:1 91:11 97:13 98:12 136:20 146:3 153:11 158:7 161:10 news 160:17 Nez 2:7 3:6 21:7 23:7,20 24:20 25:13,20 26:2,11 26:12 27:2,9,21 nice 53:7 120:10 Niles 2:11 3:10 61:11,13,14,19 62:5 71:17 73:1 75:1 76:8 79:3	80:6 82:10,21 83:5,16 84:14 85:8 non 153:4 Non-English 40:21 non-proliferation 137:4 142:11 North 28:4 Northwest 2:18 3:13,16 39:17 62:1,22 71:15 89:9 100:15 108:12 109:1,9 113:15 118:2 128:14 132:5,8,20 133:8 143:7 148:3 153:13 154:1,12 159:19 160:3,14 161:16 noted 15:17 72:1 84:2 notes 83:16 notice 88:9 notion 122:2 November 15:18 NRC 45:10 101:21 nuclear 1:1 4:15,20 5:3,7 13:12,20 15:5,6,12 16:18 24:14 26:13 27:1 28:1 30:6,21 41:14 44:16 47:15 47:19 48:12,14 62:6,9 63:10,18 64:8 65:3 68:20 69:19 76:6 77:9 80:13 87:5,10 88:3 97:13 98:4 98:14 100:5,7,12 100:17,22 102:1 103:2,6,7,12,16 104:9 110:11,14 115:12 133:2,3,9 133:13,18 134:1 134:14,18 135:2,6 135:8 136:5,7,17 137:9,10 138:6
---	--	---	---	---

139:12,21 140:8 141:1,2,8,17 142:16,21 143:13 143:22 150:2 153:1 159:14,16 160:1,5,8 161:3 161:10,13,13,18	offices 159:5 Official 2:2 131:5 officials 6:19 15:21 offspring 50:4 off-site 113:1 118:11 124:14,17 124:21 125:3 Oh 4:10 Okay 7:17 21:15 51:3 55:21 56:7 56:14 81:14 82:19 95:16 124:1,5,22 125:4 126:2,9 145:10 148:10 158:13	opinion 75:13 opinions 122:20 opportunities 104:10 159:22 opportunity 6:13 13:17 29:7 31:17 31:22 33:13 40:19 46:4 49:20 62:1 86:9 91:21 103:1 114:2 133:5 144:15 159:15,19 160:3 opposed 121:9 opposes 27:2 opposition 66:4 81:7 optimize 155:12 option 27:17 45:18 47:10 155:1 oral 42:12,20 order 19:21 129:7 130:4 153:19 Orders 20:6 Oregon 2:11 3:10 25:2 61:10,15 62:7,8,9,21 63:2 63:17,19 64:1,7 66:14 67:3 71:21 72:14 76:17 82:1 100:17 118:5 128:14 Oregon's 62:2 76:9 Oregon-Nevada 80:14 organization 51:15 96:21,22 97:3 117:22 118:18 119:4 148:4 organizational 82:6 organizations 7:5 organization's 126:22 origin 45:2 Oringer 11:9 outcome 89:4 104:12 108:1	outcomes 42:7 outside 22:3 82:7 overestimate 50:7 overlooked 74:4 overrides 78:18 oversight 63:15 overstate 50:7 overwhelming 62:17 owned 71:8 owns 133:8 oxide 151:12	154:2 162:7 participants 88:12 participate 19:6 58:16 participated 128:2 participation 71:21 105:7 particular 89:17 92:9 122:17 153:2 particularly 11:14 72:9 89:22 145:17 partner 51:17,19 partners 67:14 104:21 107:20 partnership 147:22 parts 106:4 pass 44:3 passed 68:15 passing 57:19 pasture 25:8 path 28:21 104:5 104:13 138:10 pause 84:19,22 pay 119:7 150:13 151:4,8,8 pending 5:3,13 116:13 people 7:11 8:16 9:20 10:5 14:1,15 15:8 16:22 18:11 25:18 41:5 42:10 42:13 43:6,20 45:22 48:13 49:10 49:17 51:13,18 52:9 54:22 55:7 55:14 57:4,6,10 58:2,6,9 60:21 83:20 115:6 118:8 120:7 150:3 156:11 160:2 peoples 18:17 people's 90:8 Perce 2:7 3:6 21:7 23:7,20 24:20 25:13,20 26:2,11 26:12 27:2,9,22 percent 47:1
<hr/> O <hr/> Obama 14:18 15:17 16:7 obligation 26:4 32:22 35:11 obligations 45:17 45:20 139:20 141:6 observation 96:9 observations 94:1 observe 10:6 observed 54:9 observers 88:12 obvious 155:6 obviously 5:9 76:3 84:20 107:6 114:14 148:15 149:15 154:5 155:10 occur 53:2 140:17 occurred 62:16 73:14 October 112:3 odd 127:16 offer 31:2 70:15 offered 12:4 136:5 137:11 offering 86:8 office 2:19 3:19 24:4 96:9 158:18 159:6 officer 132:20 143:13	old 120:2 oldest 118:2 once 20:17 29:13 78:6 94:21 143:20 ones 49:17 55:14 66:16 ongoing 133:5 online 131:8 134:14 on-site 6:3 89:20 121:2 open 10:16 12:8 25:8 106:5,6 133:5 opened 59:19 opening 3:2 134:6 openness 12:4 131:15,18 145:15 operable 19:18 operate 37:18 operated 133:11 137:4,19 142:10 operates 90:3 110:16 133:8 operating 133:14 139:10 140:8 operation 94:3 133:16 operational 100:8 155:4 operations 87:11 159:20	<hr/> P <hr/> pace 37:5 61:8 Pacific 61:22 62:22 71:14 89:9 154:11 159:18 160:2,14 161:16 packaging 6:15 73:16 PAGE 3:1 pages 127:16 paid 42:16 120:7 133:17,19 panel 49:22 50:10 paramount 135:5 park 99:12 104:2,9 parking 96:10 parks 99:11 104:19 105:1 Parrish 2:18 3:16 132:5,6,15,19 144:18 145:8 146:14 148:1,8,12 149:2,15 150:15 150:18 151:5,9,19 152:2,13 153:22 156:10 157:18 158:11,14 part 6:18 46:11 49:21 57:5,6 59:20 63:7 67:11 76:4,9 88:15 97:8 98:7 99:12,13 106:16 122:3 135:4 146:22		

100:13 110:6	102:6 147:11	72:11 75:16 92:13	28:13 70:6 129:1	pressure 130:7
percentage 126:5	152:8,18 157:4	94:13 104:22	position 22:8 71:11	presume 148:20
performance 77:22	placed 59:17	144:16 148:15	79:7 149:20	pretty 38:4
155:12	141:20	154:13	positive 11:22	prevailing 115:4
period 9:18 10:1	places 16:12 25:7	pointing 34:1	135:20	prevent 149:22
12:6 65:13 68:9	placing 60:20	points 64:14	possible 37:17	150:6
permanent 30:11	plan 4:21 26:14	policies 4:19 15:22	41:21	previous 55:2
48:2 70:4 75:14	88:5 105:20	17:19 20:6 36:3	posted 7:15 8:20	previously 160:19
79:1 123:4	111:19,20 116:8	129:7 133:4	potential 26:20	Priest 41:8 57:10
permanentizing	136:15 147:8	134:22 137:12,20	28:9 63:9 70:19	57:22 58:6 59:3
121:9	planned 65:9 72:21	138:1,9 144:12	90:12,22 106:1	primarily 83:9
permanently 88:4	planning 68:6 69:8	161:9	153:3,18 155:1	primary 63:16,19
permit 18:20 131:3	72:11 116:9	policy 20:3,3 44:5	potentially 63:4	prime 161:7
permits 17:21	plans 48:5	66:15 68:15,18	84:7,14	principle 146:8
perpetual 16:10	plant 15:12 59:6	71:4 72:2 98:4	power 15:5,12 64:8	principles 74:3
48:16	64:8 67:8 78:7	99:22 100:5	97:13 133:9 134:2	136:4,10 145:19
persistence 144:6	88:1 89:15 94:2	115:12 135:2	134:18,19 135:8	prior 9:21 26:21
person 10:10	99:15 110:15	136:8,14,18,21	136:17 137:9	priorities 78:15
personal 146:17	133:10 134:2	137:3,15 140:17	PowerPoint 108:19	priority 84:8
personally 43:17	135:8	141:14 161:1	practical 142:3,22	160:15
155:17	plants 134:14	political 20:7 22:3	practice 58:7	pristine 30:17
perspective 32:11	149:7	98:17 101:11,18	precise 71:19	private 71:6 138:4
32:22 34:13 74:18	Plateau 99:5	101:19 107:3,9	preclude 47:10	142:4 147:22
76:16 78:14	112:20 130:6,10	139:15 140:17	predecessor 38:19	privately 71:8
136:13 153:8	play 134:18	141:13	predicament	119:15
155:3,4	plays 38:1	politics 38:1,3 55:3	104:16	privatize 94:8
perspectives 62:2	please 12:16 40:7	95:3,4 102:2	predominately	probably 38:7
71:16	50:19 56:10 69:6	160:4	23:2	44:17 76:22
Pete 1:15 9:5	86:2 89:17 108:5	Pollett 2:16 3:13	preparations 68:22	100:18 102:14,19
117:19 155:15	111:7 161:2,14	108:11,13,15	presence 140:16	154:13 156:4
Peterson 1:19 9:6	pleased 10:7 11:4	113:15 114:19,20	present 1:12 2:1	problem 6:10
33:5,9 83:15 92:7	11:11,17 13:4	117:16 118:1,9	62:2 86:18 109:4	32:12,16 52:10
152:20	86:3 108:13	119:5,8,11,14,18	presentation 7:22	54:12,20 66:11
phases 80:15	131:22 159:13	120:1,6,11,20	13:17 71:19	92:10 122:21
Phil 1:22 9:8 60:3	162:4	121:15,19 122:5	117:17 132:14	127:4,5 149:4
72:7	plethora 89:19	122:11 123:18	presentations 8:9	153:6 155:21
physical 27:16	plus 87:8 90:5	124:3,6,11,19	146:15	156:19
pie 70:8	plutonium 15:16	125:1,5,11,20	presents 62:21	problems 36:17
piece 70:8 90:2,6	19:2 59:5 112:19	126:4 127:14	preserve 58:3	53:2 127:13 131:9
148:19	116:4,6 125:9,10	128:8 129:8,20	President 4:18	160:6
pieces 69:13 88:18	125:12,21,22	130:20 131:1,19	14:18 15:17 16:7	procedures 129:6
127:20	135:18 142:15	132:2	96:16 143:15,18	proceed 5:16 10:19
Pilot 67:8	148:22 151:12	ponds 87:8 128:20	President's 131:15	21:14 40:8 56:13
pipng 87:9	160:17	pools 46:6,15	159:13	61:18 86:6 96:6
place 32:13 33:20	point 6:1 7:14	poorly 160:7	President/CEO	108:14 162:11
51:21 60:19 64:12	10:13 12:18 22:16	population 28:8	96:3	proceedings 5:9,13
78:11 80:22 86:22	33:15 66:10 69:10	portion 11:13 28:4	presiding 1:11	8:18

process 7:14 18:20 19:7 32:20 34:8 37:11,12 59:17 69:3,4,8 70:17 79:14,14 93:18 94:12 95:5 101:5 101:20 102:11 133:13 138:21 139:2 145:7	proliferation 146:6 148:19 149:22 153:5 promises 31:20 32:2 promoting 55:17 proper 19:2 34:14 properly 110:19 proposal 94:8 124:19 129:12,21 proposals 66:3 110:20 118:7 128:5 proposed 5:7 14:22 66:1 102:10 112:8 proposes 111:15 113:8 118:12 proposing 116:13 Prosser 41:9 protect 18:5,10 20:12 26:7,14 33:21 58:3 109:9 160:9 protected 22:17,21 29:2 44:12 59:11 protecting 135:11 protection 14:13 18:1,16 27:16 protects 121:4,4 protocols 74:15 proud 74:17 provide 9:12 20:20 27:14 34:21 35:3 35:8 81:9 86:16 88:17 96:14 136:1 139:2,6 140:22 141:9 provided 59:1 89:18 144:9 provides 63:19 providing 34:3 141:14 provisions 150:5 proximity 46:15 prudent 58:10 public 9:14,18,22 63:14 66:18 67:10	86:15 88:11,16 106:5,7 115:14 118:3 119:10 130:8 135:4,11,21 136:3 137:8 138:17,20 139:15 140:7,10 146:6 147:21 157:2 publicly 71:7 public-private 148:1,4 public/private 145:6 Pump-and-treat 47:21 PUREX 151:18 152:1 purpose 4:18 13:21 25:19 34:6 69:22 purposes 60:14 pursuant 16:12 18:3 pursue 66:7 pursued 142:2 put 8:8 52:9 58:3 58:18 108:19 112:10 121:17 143:17 152:8,18 puts 122:18 putting 74:8 151:1 P-R-O-C-E-E-D-... 4:1 p.m 1:9 4:2 85:17 85:18 162:13,15	156:18 157:15 question 34:11,20 42:1 54:9 82:1 83:12,13 84:2 86:10 92:11 93:9 115:15,18 121:8 126:18,20 127:10 129:14 152:21 156:17 158:4 questionable 104:4 questions 8:2 11:21 13:2 21:2 24:18 31:10,12 33:2 38:13,20 50:14 52:11 53:9 56:1 59:22 61:2 72:6 78:21 81:15 85:10 92:4 95:7,14 104:18 105:8 106:18 108:3 109:5 117:13,18 117:21 123:10 126:11 135:20 144:16 145:11,16 156:6 158:2 quick 60:14 129:14 quickly 37:2 94:4 quite 37:2 60:13 76:10 81:18	ramps 73:22 ran 125:16 ranging 89:19 Rapids 41:8 57:10 57:22 58:7 59:3 rate 92:19 110:6 rated 131:14 ratepayers 133:17 133:20 134:16 151:10 rational 43:3 Rattlesnake 106:8 RCRA 131:3 reach 25:11 29:18 47:13 reached 30:4 reactor 9:4 46:6 70:18 84:4 103:7 139:8,21 140:9 143:8 153:1,20 154:7,7 reactors 65:3 70:11 70:14 97:13 142:9 150:2 151:13 153:12,12 154:21 155:3,6 read 24:17 126:16 159:9 162:2 reading 23:3 ready 45:15 Reagan's 143:18 real 80:7 90:8 101:5 107:12 142:3 reality 149:20 160:8 realize 77:2 realized 35:17 really 12:9 22:7 30:16 54:6,6 55:12,13,14 74:2 82:17 104:12 106:14 120:10 147:1 149:21 rear-ended 73:21 reason 152:4,14 reasonable 36:21
			R	
			race 89:2 radically 105:18 radioactive 13:10 13:19 15:1,11,15 28:2 44:19 64:5 66:15,16 68:7 73:5,10,13 91:2 109:14 113:19 114:3 116:20 118:10 130:1 radioactivity 45:1 radionuclides 54:4 72:17 radiotoxicity 141:19 raise 64:14	
		Q		
		Qe'ci'yew'yew 32:7 39:4 quantify 22:7 quantities 111:16 quantity 70:15 116:17 130:3 quarter-mile 47:16 77:10 quasi 144:22 147:18 quasi-independent		

reasons 46:7 67:12 154:6,8 155:6,8	141:8 142:3,12 149:17	release 73:13	111:15 116:3 129:3	75:21
receive 16:7 106:10	red 113:4	released 65:7 72:17 112:2	repository 5:8 15:2 19:3 28:3 35:4 37:5,7,10,14 38:5 41:17 48:4 50:11 51:11,20 63:10 75:11,14 78:1 79:1 81:7 83:3,4,8 88:5 89:13 90:1 90:11 91:5,8,12 91:15 93:3,21 100:7 111:13 115:19 116:10,16 117:7 121:21 134:7 139:3	requires 45:4
received 8:9 33:12 67:10	redoubled 160:21	releases 73:14 112:5 113:7 116:22	represent 56:15	research 106:2 137:2 141:22 146:5
recess 85:15	reduce 27:11 74:6 140:7 141:19	reliably 133:11	representation 51:13	reservation 2:9 3:8 16:11,18 17:8 25:10 40:4 41:3 120:19 159:16
reclassification 44:21	reducing 139:22	religion 58:8	representatives 7:2 60:8	reserve 30:12
recognition 9:19 19:7 27:21	redundancy 53:6	remain 37:13 65:19 77:16 134:10	represented 136:13	reserved 20:15 25:6,9
recognize 6:4 7:4 60:20 81:17 89:1 127:4 136:18 137:16 161:3	reference 121:17	remainder 8:1	represents 61:15 98:1	reserves 16:15
recognized 14:5 19:13 20:15 24:21 26:3 67:13	referendum 115:9	remaining 103:22	reprocess 103:12 150:4	residents 62:22 101:7,7
recognizing 27:7 33:16 75:22	refueling 144:4	remains 25:19 41:19	reprocessed 46:21	residual 27:11 48:22 49:19
recommend 4:21 34:15 104:14 134:22 151:17,22	regard 8:13 32:21 98:19	remarks 3:2 9:10 105:4 144:17	reprocessing 65:21 68:13 70:2 84:20 102:5 103:14 104:8 110:13,13 110:20 111:2,3 149:7,17 150:14 151:22	residues 112:5 113:8
recommendation 107:4 142:19 144:22 145:9	regarding 13:18 14:12,21 63:18 76:6 86:10 91:14 104:19 113:17 135:15 137:20 140:7	remember 42:10 42:13,13 43:20 125:15	request 14:19 16:8 69:10	resistance 80:16,18
recommendations 5:17 35:3 86:17 88:19 126:22 127:1,11 136:1 137:11 144:20 157:22 158:15	region 7:5 66:4 139:15 160:7,13 161:21	remind 5:21 7:21 50:9 156:11	requested 19:6	Resolution 68:18 71:4
recommended 37:4 129:5	regional 71:16	reminding 52:5	requesting 21:18	resolutions 68:15 76:14,17
recommends 103:8 140:19	regions 146:10 161:5	removal 19:1	require 69:1 73:16 75:14 87:12 102:12	resolve 80:7
recontaminate 65:12	region's 118:2	remove 91:3 139:20	required 45:6,19 79:2 135:1 136:20 138:11 141:15 144:6	resolved 5:11 52:10
record 67:21 85:17 119:10 159:12 162:7	regulators 88:21	removed 95:3	requesting 21:18	resource 23:22 35:8 43:22
Records 113:18	regulatory 5:4 67:16 94:12 133:13 139:2,13	removing 70:18 134:1	require 69:1 73:16 75:14 87:12 102:12	resources 14:13 15:8,10 17:14,15 17:17 18:11,13,17 18:21 20:14 26:7 26:19,19 44:1,2,8 44:12 46:1 48:22 49:4,16 89:6 110:5 154:14
recovery 27:18	reinterpreted 26:10	rendered 41:18	required 45:6,19 79:2 135:1 136:20 138:11 141:15 144:6	respect 14:1 18:6 49:11 58:8,14 153:4
recycle 151:11 152:8	rejected 50:10	renewable 57:2 59:12	requirements 45:10 67:16 74:14	responsibilities 14:3 32:13 58:18 76:2
recycled 103:20	relate 5:5	renewal 133:13		responsibility 6:5
recycling 135:17 138:14 140:4	related 5:2 78:5 141:1,8	repackaging 87:14		
	relates 34:11	repair 30:16		
	relationship 16:5 19:22 20:8,11 23:9,17 24:8,10 34:12 36:7,10 79:20 128:3	repeatedly 128:15		
	relationships 58:12 58:15 97:6	replacing 99:13		
	relative 101:18	replicate 54:15		
		report 82:3 135:13 135:22		
		reported 160:19		
		reporter 101:15		
		repositories 34:14 44:18 45:12 100:2		

20:12 26:2 42:6 44:3 52:6 79:18 80:4 146:18 responsible 57:14 57:19 114:16 responsibly 44:2 rest 11:10 123:7 restoration 14:9 19:11 24:3 restored 17:20 44:7 44:10 59:11 restrictions 29:14 result 110:12 resulting 65:14 results 16:2 58:15 resume 85:20 resumed 85:18 retain 16:10 42:17 retired 156:2 retirement 132:10 retiring 132:7 143:5 156:12 retrieval 87:14 89:20 retrieve 45:7 129:10 130:9 retrieving 128:12 return 81:21 85:12 reuse 70:21 97:2 reused 47:2 review 4:19 5:19 33:13 revolutionized 144:1 Ribbon 1:1 4:14 13:11 20:18 21:17 27:22 28:15 36:8 49:22 50:9 56:17 101:6 102:11,21 159:14 161:2 rich 43:1,14 Richard 1:18 9:7 52:13 Richland 11:1 133:10 Rickover 143:22 rid 150:2	rides 22:1 right 21:10 33:8 40:13,15 42:17 50:20 51:1 52:3 53:8 55:13 61:8 70:12 72:21 75:12 83:3 93:15 95:1 106:21 109:11 117:8 119:8 123:13 149:2 150:17 151:9 152:10,12 155:15 157:9 rights 13:22 16:10 16:15 17:1,3,22 18:5 20:16 25:6,9 25:14 26:8,11 27:20 42:17 44:11 57:1 59:9 110:3 risk 28:7 50:6 62:21 92:20 risks 18:14 26:20 65:10,11,15 70:20 river 25:11 29:19 43:14 46:16 47:14 47:18 54:4 57:4,5 57:9 58:1,4,21 59:1 63:3,5 65:16 77:10 89:6 90:13 109:10,15 113:6 121:4 130:6 161:17 Rivers 1:9 river's 57:8,11 road 74:10,16 roam 29:13 robust 73:16 robustness 73:7 rock 51:12 rod 46:8 47:1 rods 46:20 role 63:15 81:13 134:19 room 12:7 78:9 125:16 162:11 routes 66:22 69:2 ROWE 1:20 158:4	158:12 running 109:10 135:8 Russell 14:8 29:15 <hr/> S <hr/> sacred 25:16 safe 27:17 32:4 45:18 51:21 64:4 67:22 77:5 121:5 134:11 139:6 safely 44:9 46:1 66:17 101:1 133:11 142:13 safety 14:14 15:7 18:1 62:6 66:18 67:6 68:7 70:20 73:2,3 89:21 135:12,15,16 153:4 155:3 salary 119:7,9,19 salmon 39:12 43:15 salt 44:21 Saraeva 10:11 Sarah 2:17 3:14 108:16 113:10,13 114:20 131:21 satisfactory 37:12 saturated 30:14 saw 60:6 78:8 116:20 134:4 saying 80:1 115:1 130:11 says 32:17 113:21 scale 66:20 84:6 142:13 scenario 138:9 schedule 8:4 45:9 scheduled 61:6 Scheeler 2:19 3:20 158:20 159:8 162:3 science 38:2,2 40:2 41:1 53:13,21 54:2,5,9,11,14,18 55:18 101:14,17 101:19,20,21	102:3 107:12,13 121:12,14,17,17 121:19 122:3,8 130:15 scientifically 28:6 scientist 107:9 scientists 22:12 scope 5:18 Scowcroft 1:11,14 4:8,10,12 61:20 105:10 132:17 sea 144:3 search 158:7 seat 49:21 seats 4:4 12:5 Seattle 101:16 second 66:10 secondary 53:3 112:9 Secondly 8:13 154:17 secrecy 131:9 secretary 4:17 5:18 5:20 13:10 14:19 16:8 sector 142:4 secure 134:11 security 46:10 70:20 135:15,16 135:21 153:4 159:21 see 6:13 10:17 12:6 23:9,12 24:10 40:9,10 69:21 82:17 85:6 106:7 113:5 114:6 120:19 128:13 131:7 135:14 145:18 146:7 149:6 seeing 37:21 120:16 seeking 26:9 seen 67:20 73:9,17 seeps 109:15 segment 88:15 selected 27:17	selection 102:18 self-determination 20:13 Sellafeld 53:1 Senate 158:19 Senator 2:19 3:19 122:15 158:18 159:6 162:5 send 111:12 sense 74:6 80:21 sensitive 40:14 sent 31:6,7 127:10 131:3 sentence 51:8 separate 84:17 85:4 103:3 separately 69:18 70:9 85:3 serious 125:6 seriously 101:21 serve 10:9,11 13:9 23:19,21 served 155:18 services 141:2 session 9:15 14:12 set 45:9 102:18 109:20 144:11 149:5 setting 23:14 seven 108:16 severe 64:2 73:12 severity 67:2 shallow 33:18 111:4,5,9 116:14 share 75:17 shared 75:8 Sharp 1:22 9:8 60:2,4 72:8 sheds 46:3 sheet 9:22 shenanigans 101:12 107:3 ship 114:17 116:9 118:13 shipment 67:7 shipments 63:21 64:5 67:21 69:1
--	---	---	--	--

73:10	11:13,15,17,18	Smiskin 14:18	55:2 56:8 96:2	stable 28:4 43:3
shipped 114:3	14:2 15:13 16:19	Snake 41:7	108:10 132:4	88:3 136:7
shipping 69:3 73:4	17:10,20 24:5,14	snide 95:14	speakers 7:20,21	staff 10:8,11,14
73:7 74:20	36:15 37:13 43:20	society 138:5 144:9	8:8 12:14 158:5	24:4
ships 144:3	45:8 51:10 55:18	soil 26:15 42:3	speaking 40:2	stainless 134:9
Shirley 11:9	62:14 63:17,20	63:13 65:12 116:4	124:13 136:6	stake 89:4
shop 54:16	64:16 80:20 83:4	116:7 118:21	spearheaded	stakeholder 88:15
shoreline 65:16	87:16,18 88:8	125:17	118:19	stakeholders 89:3
109:16	91:1,5 99:4	soil-washing 47:11	special 18:16	stamped 131:5
shores 57:8	100:13 102:10,18	soil 149:10	specializes 35:1	stand 85:15
short 12:6 68:9	106:4 115:4,18	sole 141:9	specific 14:11	standard 109:17,20
90:15 129:16	116:15 125:22	solid 107:13 144:7	19:17 50:14 98:4	112:21 113:5
shortcuts 45:13	128:4 131:10	solution 34:3 48:2	126:22 146:7	146:9
short-sighted 48:1	140:2,6 145:20	49:21 51:18 52:2	specifically 15:9	standardized 46:12
show 11:12 68:22	158:8 160:19	66:6,11 101:9,22	52:20,21 152:3	standards 67:1
showed 125:2,9	161:15	103:17 136:19	specifications	117:2
showing 112:18	sited 81:6	139:7 141:10	91:11	standpoint 71:2
shown 15:20 125:2	sites 19:18 34:6	145:21 146:9	spectrum 88:21	start 84:3,11
shows 112:3	50:15 52:22 65:5	156:21	speech 122:1	147:11 150:4
shut 70:10	70:18,19,21 84:4	solutions 38:4 42:5	spell 145:1	152:17
shutdown 139:8	97:20 98:1,2	107:1	Spencer 2:4 3:5	started 133:20
140:9	100:10 101:8	solve 104:16	12:15,16 13:4,6,8	143:15 152:5
shut-down 70:14	104:21 123:3	solved 104:5	20:22 21:3,5	starting 10:2 84:15
side 155:21	128:10 130:5,9	solving 6:10	22:18 38:19	148:15
sides 122:20 155:20	134:2 139:8,10,21	soon 45:16	spend 6:17 157:20	starts 94:7
sideswiping 74:1	140:9 143:3	sorry 50:22 120:11	spending 36:15	start-up 143:8
signed 82:15	site's 17:18 86:22	129:15 151:19	spent 64:11 65:2,4	Stat 16:14 25:4
significance 17:12	siting 5:22 51:12	158:3	66:16 67:18 68:19	state 23:7 29:8 36:3
significant 25:17	75:22 79:14 80:10	sort 143:9	69:19 70:10 77:9	58:12 62:2 63:18
49:20 76:1,4	sitting 85:20 86:20	sound 16:4 28:6	82:5 84:3 100:12	64:6 66:14 71:2,9
116:17 125:14	90:4 110:12	54:10 101:14	100:16 102:15	74:18 76:11 79:9
129:1 141:15	situation 11:16	source 124:10,12	103:12 104:1,9	79:21 80:4,5,17
146:18	24:13 74:9 75:20	124:14 125:10	158:6	81:8,10 83:21
signing 76:16	76:22 102:2	sources 125:11	spin 149:12	88:21 107:19
sign-up 9:22	slide 109:7,12	south 41:9 143:3	spiritual 58:6	115:17 128:13
silent 156:13	110:8 111:7,21	sovereign 18:3	splendid 28:20	130:7 131:4
simple 87:13 89:19	112:12,16 113:2	24:21	Spokane 114:22	136:12 153:1
simply 91:13	115:21,22 116:1	sovereigns 20:1	115:5,6	stated 101:16
110:22 113:9	125:2	35:21	spoke 127:18	statement 20:17
115:10 130:9	slides 115:22	sovereignty 20:13	148:20	32:10,21 50:19
single-shell 118:15	slow 120:13	spawning 29:18	spoken 22:19 40:21	52:7,15 65:7 85:9
129:10	slowly 113:7	speak 9:17 10:5	sprint 89:2 93:18	91:17,19 92:1
singular 143:15,21	small 90:7 153:12	29:7 31:15 32:8	square 59:7 99:6	112:2 123:22
sir 4:9 21:4 61:18	153:22 154:4,7,20	33:8 40:13 86:9	105:22	144:19,22 157:5
120:3 158:11	155:2,10	109:14 133:1	stabilization 47:22	158:17,20 159:1,9
sit 39:18	smaller 69:14 84:5	144:15	stabilize 77:9	159:12 162:6
site 6:7,12 7:15	87:6 154:19	speaker 10:4 39:22	stabilizing 77:4,16	statements 8:10,10

10:18	store 27:1 134:5	8:22 9:2,12	supporting 87:7	talk 22:14 40:14
states 13:13 14:2,7	stored 30:8 47:3,5	subject 64:1 107:2	supportive 55:1	41:12 49:11 83:20
14:22 16:13,17,20	64:10 77:10 117:9	137:21	supposed 35:2,2	98:18 101:4
17:19 19:5 20:4	134:8,11 143:2	subjected 101:13	100:8 133:22	113:10 122:14
20:12 23:1 25:3	160:18	submarines 144:2	supreme 20:5 23:1	147:3
26:1 27:10 28:22	storehouse 43:9	submit 7:13 159:11	sure 30:5 32:2 51:9	talked 39:10
30:21,22 44:17	storing 65:2 115:2	submitted 126:21	62:13 76:8 93:10	talking 40:10,10,11
66:21 67:4,14	139:8	subsequent 161:4	94:22 100:8 107:5	81:4 122:13
68:4,4,20,21 71:4	straight 125:17	subsequently 14:10	122:11 157:11	146:16
80:11 82:14,16	stranded 64:12	73:6	surely 37:1	tank 42:2,3 45:7
107:15 140:21	strategic 139:5	substantial 6:9	surface 26:15	111:22 112:6
148:7,21 149:9	141:11	substantive 26:5	144:3	125:13,15 126:3,6
158:19	strategy 138:3	153:3	Susan 2:12 3:11	126:8 129:8,11
statewide 115:8	144:1	succeeded 67:11	85:13,21	tanks 33:18 45:8
station 15:12 97:14	stream 70:6 84:21	success 72:12	susceptible 101:10	47:8 78:16 87:9
120:3 133:9	strengthened 35:16	successes 137:6	110:1	92:19 110:12
status 54:2 105:1	strenuous 58:10	successful 67:9	sustain 42:21	111:17 112:6
statute 23:14	stress 28:14 160:11	137:20 142:5	sustainability	118:15
statutes 20:6	stretch 64:20	successfully 58:11	141:18	Tank-Closure
statutory 139:19	strict 8:5 74:13	68:8 79:13 81:6	sustained 141:13	123:21 127:15
141:6	strife 42:22	succinct 145:18	sweat 49:6	task 5:16 28:16
stay 31:16 43:12	striking 36:14	sudden 156:14	system 12:19 35:16	103:3
steam 99:16	stringent 94:11	sufficient 48:6 65:9	53:6,7 137:17	tasked 152:22
steel 134:9	strong 66:3 92:14	suggest 81:5	systems 54:14,17	taxpayers 140:1
step 78:10 85:5	stronger 36:1,11	suggested 82:3	60:11 112:7	151:8,9
stepping 80:1	strongest 41:13	suggesting 75:13	137:13 142:9	teaches 49:10
steps 77:16 147:2	53:20	suggestion 157:9		teachings 42:20
157:3	strongly 37:3 60:5	suitable 45:15	T	43:10,11 57:13,20
stepwise 138:18	101:3 107:17	138:14	table 28:20 90:5	technetium-99
stewards 51:22	129:10	summaries 8:9	98:7	116:21 125:6
stewardship 48:17	strontium-90	summarize 92:12	tag 29:20	technical 22:3,13
stick 148:18	109:15	summarizing 93:7	take 4:4 21:19 25:6	28:13 136:19
stolen 149:10	structure 82:7	146:1	36:17 38:7 42:6	technologies 28:9
stop 134:3 146:4	140:15	summary 109:4	49:12 54:14 61:11	36:20 37:20 53:15
stopped 115:9	struggle 94:22	145:18	64:17 66:12 68:10	137:13 138:15
storage 6:15 9:6	Stuart 2:8 3:8 40:1	summer 106:13	78:11 80:8 85:11	140:5 141:9 142:7
27:18 45:18 46:3	40:22	108:18	88:5 95:9 98:13	153:2,7,11,15,17
46:5,15 47:4	students 108:17	supplies 142:16	109:18 110:10	153:21 154:3
51:21 62:10 64:10	113:14	supply 141:18	115:20 120:12,13	technology 9:4
64:17 65:21 66:6	study 102:13	supplying 134:19	129:13 139:13	24:8 27:8,12
66:9 68:12,17	161:21	support 44:11 66:5	157:3	35:11 37:18
70:13 71:1,6 78:6	stuff 55:12	68:11 76:13,18	taken 60:18 90:18	136:21 138:6
78:8 90:16,17,19	stumped 11:21	122:2 138:17	98:6 147:2,10	141:16 142:1
90:20 98:3 117:3	subcommittee 9:5	139:16 141:4,14	159:15	155:9
134:4 135:17	9:7,8 10:12 23:22	supported 57:11	takes 36:16 94:1,5	tectonically 28:3
139:4,11,18 140:6	75:5	76:17 97:12 98:21	94:10	Ted 62:8
156:22	subcommittees	supporters 53:20	take-back 142:17	tell 57:13 92:13

94:16 119:14,18 119:21 122:22 127:21 148:2 152:4 temporarily 134:5 temporary 123:4 156:22 ten 109:22 tendency 154:20 Tennessee 157:12 tens 47:20 term 32:21 33:22 terminated 19:17 terms 34:15 41:13 76:9,20 77:19 78:18 87:3 128:3 131:14,17 135:18 153:14 territories 24:22 terrorists 149:11 testament 36:6 testifying 36:7 testimony 20:20 21:1 60:6 72:5 79:7 90:8 109:3 123:8,19 155:18 157:16 thank 4:4,8,13 7:17 11:2,6 12:10,11 13:3,6,16 20:18 20:20,21,22 21:4 21:5,12,15,16 24:19 32:6,10 33:6,10 34:19 38:14,16 39:20,21 40:7,18 51:3 52:3 52:4,14 53:12 55:21 56:2,11 59:15,16,20 61:1 61:3,5,14,19 62:1 71:14,18 72:4 74:22 75:1 76:7 83:15 85:9 86:2,4 86:7,8 91:21,22 92:3,7 95:16,18 95:19,22 96:5,7 105:5,6,10 108:4	108:7,9,21 109:1 109:2 114:18,20 117:12,15 122:16 122:17 123:11 126:13,15 131:18 131:20,21,22 132:2,11,12,15,22 144:19 145:13 150:10 155:17 157:16,21 158:13 159:2,7,8 161:20 162:1,14 thanks 71:20 82:22 108:5 126:9 Than-Class-C-W... 116:12 thing 12:1 55:9 106:20 149:8 things 22:14 24:9 29:3 32:2 33:19 35:17,22 43:20 58:9,18 74:12 83:8 106:22 120:9 122:20 146:21 148:14 150:13 152:18 155:7,11 think 21:19 22:5 23:11 24:6,9 29:10,11 30:13 31:18 33:14 34:22 35:1,5,7,7,8,9,11 35:13,19,21,22 36:4,4,9 37:15,16 37:19,22 38:1,6,9 38:18 53:14 74:3 77:15 78:13 80:6 81:10 83:2,18 85:5 92:9 95:4 101:5 104:11 105:21 106:8,11 107:12,16 109:19 110:6 112:14 114:5,13,16 115:7 120:17 121:19 122:9 126:8 127:16,19 128:13 136:11 146:16	148:3,12 150:8 151:2,5 152:14 154:5,8 155:9,21 156:7,19 157:19 158:9,19 thinking 149:21 156:9 third 69:10 thought 46:11 54:10 106:21 thoughtful 117:16 thoughts 34:12 75:18 79:20 105:12,18 146:12 thousand 65:17 114:9 thousands 47:20 57:12 65:14 three 1:9 9:2,12 64:14 81:17 98:15 109:22 116:3 120:22 throw 82:11 tied 159:22 tightly 48:20 TIM 2:2 time 5:10 8:2,5,7 10:3 12:6 17:2,13 19:12 20:20 21:22 22:9 25:15 30:9 31:14 37:17 42:14 58:2 63:8,11 64:21 68:9 69:7 77:1,12,18 81:16 86:18 87:22 91:2 91:6 94:6,10 105:3 114:10 119:4 122:18 125:13 129:15 136:22 143:9 152:5 156:21 timely 60:18 times 16:2 109:16 109:22 112:21 113:5 116:3,6 today 5:22 22:6 24:16 30:7 31:3	32:8 60:7 77:1 87:21 103:15 108:15 109:14 110:3 121:8 127:2 127:8,12 132:7,21 133:1 144:15 146:19 158:5 today's 9:15 tomorrow 6:18,22 10:1 96:13 124:13 127:9 143:6 156:3 156:15 159:5 162:10 tomorrow's 9:10 9:15,19 14:12 tons 82:5 100:16,18 top 106:7 total 90:22 Touche 95:15 tough 29:14 38:4 146:22 160:22 tour 11:3 21:19,19 62:13 77:20 86:3 104:18 132:13 145:14 touring 6:12 108:22 109:2 toxic 15:6 toxic-free 161:19 tradition 42:12 traditional 44:9,13 tragic 16:2 training 59:6 transcript 8:18 transferred 140:14 transparency 12:3 32:20 131:17 transport 54:3 83:21 transportation 9:6 62:10 63:19 66:12 66:20,22 67:6,18 67:22 68:6,7,11 68:17,19 69:8 72:2,10,14,20 73:2,18,21 74:5 74:13 81:22 82:11	83:10 84:5 135:16 transported 66:17 73:5 113:22 transuranic 67:7 116:6,11 travel 28:17 63:22 144:3 traveling 40:19 63:21 64:6 treated 128:22 treaties 14:6 20:5 29:4 treatment 6:15 87:14 88:1 89:15 99:15 110:15 treatments 47:22 treaty 13:22 15:10 16:13,16 17:3,17 17:22 18:10 19:18 20:15 22:17,21 25:3 26:7,11 27:19 31:21 110:3 treaty-defined 18:21 treaty-reserved 25:14 26:8 42:17 tremendous 102:22 104:10 tremendously 124:15 trenches 87:8 118:21 125:21 128:11,18 tribal 6:18 12:15 13:9 14:5 15:21 18:5,14 19:5,13 20:1,3,7,13,14 22:5,20 23:15 26:16,18 35:13 39:2 44:13 48:10 tribe 2:7,10 3:6,9 14:12 21:8 22:12 22:15 23:5,7,9,20 23:22 24:20 25:5 25:14,17,20 26:2 26:5,11,12 27:2,5 27:10,22 29:9
--	--	---	---	--

31:8,11,11 39:6
56:9 80:14
tribes 2:4,8 3:4,7
13:14 14:7 16:9
22:9,10 26:3 29:1
35:20 36:3 40:3
41:2 48:19 53:17
53:20 60:8 86:14
105:13 110:3
128:15
tribe's 24:7 25:14
25:18 35:9 36:9
TRIDEC 96:18,20
97:4,9,11,16
103:8 104:19
tried 29:10
tries 24:6
trip 31:3
Tri-Cities 101:7
Tri-City 2:14 3:12
96:3,17
tri-party 86:17
Trojan 64:8
TRU 27:6 44:19
98:13 100:3 116:8
trucks 74:8
true 48:1 50:1
75:15,15 149:21
trumped 38:3
trust 14:3 17:15
20:11 23:9 26:1,4
35:10,21 58:14
135:4 136:3 137:8
trustee 43:22
try 28:17 34:21
35:10 54:15 62:19
70:17 80:22 121:3
trying 30:3 31:18
40:9 78:19 109:9
turn 4:6 13:2 30:16
114:18 120:13
turned 98:16 99:10
two 10:7 13:22 19:4
51:8 53:7 80:15
92:6 94:6 103:4
104:8 148:19
type 34:8 70:4

77:22 151:22
types 98:4 142:8
typically 53:1
63:22 154:19

U

ultimate 26:13
136:15
ultimately 135:13
139:1
Umatilla 2:9 3:7
40:3 41:3
unacceptable 27:7
65:15 111:6
unauthorized
142:15
uncertainty 93:2
unclaimed 25:8
underestimate 50:8
69:6
underground 87:9
129:2 160:18
underneath 130:14
understand 21:9
28:15 30:2,3 33:9
44:15 54:3 57:1
59:12 66:5 81:2
93:4 101:20
104:17 124:8
151:20 160:22
161:11,14
understandable
60:13,15 79:11
understanding
54:5 58:8,14
understood 75:9
137:7
underway 52:19
62:19
undesirable 16:1
undue 138:4
unestimated 17:15
Unfortunately 16:6
unified 143:19
unique 18:14
United 13:13 14:1
14:7,22 16:13,17

16:19 19:5 20:4
20:12 23:1 25:3
25:22 27:10 28:22
30:20,22 44:16
80:11 140:21
148:7,21 149:9
158:19
units 19:18 97:6
university 108:16
unlined 118:21
125:21 128:10
130:1
unpredictable 64:2
unraveling 127:13
unreasonable
36:22
unrestricted 26:16
update 9:13
upfront 94:20
upsets 98:9
uranium 112:13
uranium-238 112:4
urge 135:22
urged 129:9
urgently 44:17
use 44:9 49:4,5
53:7 84:12 85:1
88:9 89:5 96:18
105:20 106:1,2,15
110:4,7 120:20
121:2 131:5
135:18 142:15
147:5
useful 33:11 72:12
uses 44:14
usual 16:12 25:6
utilities 151:7
utility 153:9
utilize 23:16
utilized 29:13
U.S 124:3 126:7
137:15 148:13

V

V 1:15
vadose 90:12
Valley 157:12

valuable 6:13
value 17:15 69:22
141:15
values 60:10
variety 6:14 71:15
various 25:16 59:4
98:1 105:1 137:12
varying 90:5
vast 111:16 128:17
130:2
vaults 47:6
vehicle 73:21
vehicles 23:16
veto 115:12
viability 138:19
viable 50:10
Vic 2:18 3:16 132:5
132:6,9,19 158:5
Vice 21:10 23:19
VICKY 1:14
video 8:18
view 22:5,17 28:20
35:9 75:8 105:17
111:10 135:5
154:13
views 6:20 22:3
27:5 82:9 106:9
virtue 25:2
vision 23:7 31:7
44:6 52:8 143:15
143:18,21 144:6
144:11
visit 6:7 7:9 11:17
29:20 159:15
visited 52:22 97:15
visitor's 29:20
vital 25:19 115:16
134:21
vitrification 37:12
41:16 48:3,5
52:18,22 53:15
77:13,14 78:7
94:2,8,19 112:10
vitrified 47:3 69:20
78:6,17 88:6
89:13 91:10
116:18,22 117:4,9

117:10 124:9
vitrify 77:21
voice 136:6
voices 15:21
volume 141:19
voluntary 80:10
volunteer 86:21
vote 115:13

W

wagon 120:3
wait 104:15 146:4
waivers 45:12
wall 143:20
Wana 57:4
Wanapum 2:10 3:9
56:9,15,19,19
57:4,10,13,18,22
58:7,11,16,20
59:3,7
want 8:15 11:8
12:3 30:5 36:1,9
39:5 40:12 43:18
51:7 54:15 71:20
75:4 113:10
121:11,13 122:1,1
122:16 145:3,4,5
145:13 152:15
wanted 60:4 72:10
89:22 144:21
155:16
wanting 72:3
wants 111:12
war 60:14,17 87:3
98:22 99:1
warmed 39:3
warning 43:12
warranted 139:14
Warren 2:4 3:5
12:15 13:8 38:19
Washington 1:10
7:1 25:2 118:5
143:4 159:17
Washington's 7:2
wasn't 94:21 98:7
waste 5:7 6:10,16
11:15 13:10,19

14:10 15:1,11,15 19:2,17 24:3,14 24:15 26:13 27:1 27:4,6,6 28:2 30:6 41:14,19 42:1 44:19,19,22 45:2 45:3,7,11 47:1,2,4 47:8,12 48:2,7 50:2,11 53:3,4 54:19 59:18 62:9 62:16,20,20 63:10 63:18,21 64:5,17 64:17,18 65:4,11 66:11 67:7,8 68:16,20 69:12,18 69:21 70:4,6,15 70:16 72:4 74:20 76:20 77:4,21 78:16 80:13,22 82:6 84:8,21,22 86:10 87:17 88:1 88:3,6 89:13,14 89:14,20 90:1,11 90:22 91:4,12,15 92:11,15 93:1,5,9 93:13 97:19,22 98:4,11,13,14,15 98:17 99:15,22 100:2,3,5,7,12,14 100:22 101:2 102:1 103:5,10,17 103:20,22,22 104:4 110:11,14 111:12,16 112:1 113:1,20,22 114:3 114:17 115:3,4,12 116:6,11,18,22 117:4,10 118:10 118:12,19 123:3 123:21 124:9,15 124:18,21 125:3 127:15 128:20 130:3,5,9,14,15 133:18 135:2 137:16,21 138:12 141:3 143:2 160:1 160:5,6,8 161:3	161:18 wastes 33:16 37:13 77:17 87:10,12 111:3,15 112:9,10 125:15 129:9,11 130:1 water 26:15 39:10 39:11 49:10 57:15 60:21 89:5 109:17 109:20 112:21 113:5 way 25:20 28:18 32:14 33:20 37:16 37:17 38:7 39:12 41:8 52:6 73:4 74:6 76:12 80:20 82:12 98:5 102:3 103:19 120:19 136:2 149:21 150:22 152:6 154:21 158:10 ways 54:5 69:11 weapon 103:5 weapons 15:6 19:14 101:1 149:1 weapons-complex 97:20 98:20 99:1 99:9 100:11,14 101:8 103:22 104:21 wear 29:20 weather 64:2 74:9 Web 7:15 webcasting 8:14,14 website 8:20 WEDNESDAY 1:6 week 75:5 weighed 70:22 76:11 welcome 3:3 4:6 10:21 11:8 12:10 13:7 41:4 56:16 56:17,20 61:22 158:21 welcoming 12:2 wells 109:16 went 85:17	weren't 35:18 West 1:10 western 41:7 67:4 68:4,14,21 70:22 71:9,11 75:6 76:13 79:8 82:14 we'll 22:5,14 24:15 31:13 37:8 61:11 81:16 85:13,20 127:9 we're 4:22 11:4,11 11:16,17 13:4 28:21 30:18 37:20 39:7,18 48:17 49:13 51:21 54:22 61:6,17 64:18 74:17 75:22 77:13 77:14 90:10,21 95:11 108:13 109:8 117:8 118:9 123:1 127:4 131:22 147:12 152:7,7 154:12,22 we've 8:9,15 9:17 25:21 31:5 42:15 42:16 53:14 54:9 55:11,11 61:7 64:3 65:22 73:17 73:20,22 80:9 83:19 92:9 117:4 127:8 155:6 WGA 68:18 who've 83:20 wide 88:21 widely 46:13 wide-scale 67:18 wife 120:2 willing 79:22 80:2 142:4 144:8 win 119:2 winds 115:5 winter 64:2 wintering 17:13 WIPP 67:20 72:12 73:17,21 74:5,12 81:4 82:11 116:9 wisdom 42:21	wish 10:5,18 13:16 64:14 161:22 wishes 9:17 132:10 withdraw 5:6 witness 21:6 159:19 160:4 witnesses 121:8 wonder 72:13 105:11 wondering 37:3 54:1 119:3 148:11 Woollen 10:9 word 7:20 8:21 9:14 156:15 words 31:16 121:11 154:14 work 5:15 6:11 7:12 9:1,3,13 22:12 24:2 27:10 43:17 54:21 62:3 62:11 79:20 80:3 104:7 107:20 110:19 119:3 121:1 134:21 135:3 152:10,14 158:22 160:9 161:22 worked 67:3 83:20 94:17 worker 89:21 workforce 86:13 121:6 working 4:22 43:18 44:15 55:6,11 68:3 84:7,13 97:17 101:17 102:7 113:14 118:3 works 151:14 world 55:6 57:20 60:14 98:22 143:16 worried 39:7 123:1 148:21 worry 149:4,8 worth 70:13 wouldn't 38:8	wound 38:21 wrap 13:1 50:18 write 127:21 writing 156:5,13 written 7:13 33:12 71:10 79:9 wrong 47:9 wrote 14:18 101:16 115:8 WTP 88:7 <hr/> Y <hr/> Yakama 2:6 3:4 12:15 13:9,15 14:1,9,15,17 15:4 15:7,9 16:10,15 16:20,22 17:5,8 17:12,13,16,19,22 18:1,4,10 19:4,8 20:19 year 47:17 65:7 67:21 95:2,2 112:14 118:15 years 36:21 42:11 42:15 43:7 47:20 53:22 55:11 57:12 60:12,17 64:3,19 64:21 65:14,17 66:2 68:5,10,16 69:1 73:11 76:14 77:8,12,13,14 82:3 86:20 94:1 98:5,19 102:18 104:15 110:18 112:4,22 113:4 114:9,9 117:2 133:12,15 134:2 143:6,7 152:15 154:16 155:7,18 159:18 yellow 12:21 young 122:18 123:8 younger 114:7 Yucca 5:8 15:1 45:14 69:5 98:6 98:12 100:6,21
---	---	--	--	---

101:12,18 102:12 102:15,17 103:9 103:20 111:13 115:11 138:21 158:6	160 112:21 162 3:22 1855 16:13,14 17:4 22:17,21 25:3 1943 17:4 1963 97:1 1980s 63:7 1982 99:22 133:21 135:2 1984 133:17 1986 115:8 1987 100:5 1989 19:7 77:11 1993 44:16 1998 53:18 100:9	4 3:2 154:15 4,000 154:13 4:26 162:15 40 3:8 155:7 40-some 127:16 43 125:20 128:10 129:22,22 44 143:7 45,000 99:14	800 86:19 86 3:11
Z			9
zone 90:13			9 14:16 16:14 9,000 106:1 90s 105:22 130:9 92 47:1 957 16:14 25:4 96 3:12
\$			
\$10 102:15 \$290 133:17 \$34 133:18 \$8 110:16 158:8	2	5	
0	2,000 113:4 2:53 85:17 20 60:17 64:19 66:2 77:13 85:12 90:5 94:1 98:5 104:15 133:15 200 63:22 2001 134:5 2004 113:18 2008 110:22 2009 15:18 23:8 2010 1:6 14:16 2015 99:4 104:3 2040 118:15 129:11 21 3:6 215 127:20 225 88:18 25 68:5 133:12	5 15:18 47:17 50 36:21 88:2 109:11,13 110:4 113:5 130:2 155:7 500 86:19 53 110:10 56 3:9 560 100:16 580 17:6 586-square-mile 99:4	
08-6 68:18 09-5 71:4	3	6	
1	3 69:1 118:11 124:20 3:14 85:18 30 104:15 300 100:18 31-seat 86:12 34 64:10 375 97:4 3890 112:14	60 36:21 105:22 159:18 60s 97:11 60,000 82:4 61 3:10 65 64:20 67 98:19	
1 12:20 1,000 42:11 59:7 112:22 1,500 109:16 1,700 111:19 1:00 162:13 1:30 1:9 4:2 10 7:22 12:21 67:22 77:8,12,14 104:15 110:18 154:15 10,000 42:15 43:7 109:21 117:2 10:00 10:3 100 152:15 108 3:14 11 3:3 67:20 12 16:13 25:3 53:22 120:2 134:2 125 112:4 114:9 13 3:5 17:9 24:22 13-year 120:2 132 3:16 14 1:6 143:6 15 85:12 110:6 158 3:20 16 116:6 16,000 109:1 118:4 118:8	4	7	
		70 64:21 99:16 100:13 70s 97:11 700 100:18 7016 1:10 75 99:6 791 64:8	
		8	
		8 110:18 154:15 8,000 67:21 8:00 10:2 8:30 162:11 80 12:5 80s 97:11	