




UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555-0001

July 8, 2004

MEMORANDUM TO: ACNW Members
ACNW Staff

FROM: 
Michele S. Kelton
Technical Secretary, ACNW

SUBJECT: CERTIFIED MINUTES OF THE 149TH MEETING OF THE ADVISORY
COMMITTEE ON NUCLEAR WASTE (ACNW) APRIL 20-22, 2004

The proposed minutes of the subject meeting have been certified as the official record of
the proceedings for that meeting

Attachment:
Certified Minutes of the 149th
Meeting, April 20-22, 2004

cc: J. Larkins, ACRS/ACNW
H. Larson, ACNW/ACNW
A. Bates, SECY (O-16C1)
S. Jones, NMSS (T-8A23)
I. Schoenfeld, EDO (O-16E15)



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555-0001

MEMORANDUM TO: Michele S. Kelton, Technical Secretary
Advisory Committee on Nuclear Waste

FROM: B. John Garrick, Chairman
Advisory Committee on Nuclear Waste

SUBJECT: CERTIFIED MINUTES OF THE 149TH MEETING OF THE
ADVISORY COMMITTEE ON NUCLEAR WASTE (ACNW)
APRIL 20-22, 2004

I certify that, based on my review of these minutes , and to the best of my knowledge and belief, I have observed no substantive errors or omissions in the record of this proceeding subject to the comments noted below.

Comments:

B. John Garrick, Chairman

7/7/2004

Date

Minutes of 149th meeting held on April 20-22, 2004, dated July 7, 2004.

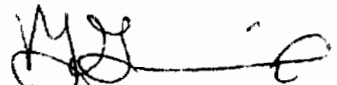
MEMORANDUM TO: Michele S. Kelton, Technical Secretary
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FROM: B. John Garrick, Chairman
Advisory Committee on Nuclear Waste

SUBJECT: CERTIFIED MINUTES OF THE 149TH MEETING OF THE
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APRIL 20-21, 2004
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I certify that, based on my review of these minutes¹, and to the best of my knowledge and belief, I have observed no substantive errors or omissions in the record of this proceeding subject to the comments noted below.

Comments:


B. John Garrick, Chairman

Date 07/07/04

⁽¹⁾ Minutes of 149th meeting held on April 20-21, 2004, dated July 7, 2004
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UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555-0001

July 7, 2004

MEMORANDUM TO: B. John Garrick, Chairman
Advisory Committee on Nuclear Waste

FROM: *Michele S. Kelton*
Michele S. Kelton, Technical Secretary
Advisory Committee on Nuclear Waste

SUBJECT: PROPOSED MINUTES OF THE 149TH MEETING OF THE
ADVISORY COMMITTEE ON NUCLEAR WASTE (ACNW)
APRIL 20-22, 2004

Enclosed are the proposed minutes of the 149th meeting of the ACNW. This draft is being provided to give you an opportunity to review the record of this meeting and provide comments. Your comments will be incorporated into the final certified set of minutes as appropriate. Please provide your corrections and comments to me.

Please note that these minutes are being issued in two parts: (1) main body (working copy form) and (2) appendices. The appendices are being sent only to those members who have requested them.

A copy of the certified minutes with appendices will be forwarded to each member.

Enclosure: As stated

cc w/o Encl. 2: ACNW Members
ACNW Staff
J. Larkins, ACRS/ACNW

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CERTIFIED

7/7/2004

By B. JOHN GARRICK

Issued: 7/7/04

CERTIFIED MINUTES OF THE 149TH MEETING OF THE ADVISORY COMMITTEE ON NUCLEAR WASTE APRIL 20-22, 2004

The U.S. Nuclear Regulatory Commission (NRC) Advisory Committee on Nuclear Waste (ACNW or the Committee) held its 149th meeting on April 20-22, 2004, at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland. The ACNW published a notice of this meeting in the *Federal Register* on April 1, 2004 (69 FR 17243) (Appendix A). This meeting served as a forum for attendees to discuss and take appropriate action on the items listed in the agenda (Appendix B). The entire meeting was open to public attendance.

A transcript of selected portions of the meeting is available in the NRC's Public Document Room at One White Flint North, Room 1F19, 11555 Rockville Pike, Rockville, Maryland. Copies of the transcript are available for purchase from Neal R. Gross and Co., Inc., 1323 Rhode Island Avenue, NW., Washington, DC 20005. Transcripts may also be downloaded from, or reviewed on, the Internet at <http://www.nrc.gov/reading-rm/doc-collections/acnw/tr/> at no cost.

ACNW Members Drs. B. John Garrick, Chairman, Michael T. Ryan, Vice Chairman, George M. Hornberger, and Ruth F. Weiner attended this meeting. Dr. James Clarke, ACNW consultant, was also present. For a list of other attendees, see Appendix C.

I. CHAIRMAN'S REPORT (OPEN)

[Dr. John Larkins was the Designated Federal Official for this portion of the meeting.]

Dr. B. John Garrick, ACNW Chairman, convened the meeting at 1:00 p.m. and briefly reviewed the agenda. He also stated that the meeting was being conducted in conformance with the Federal Advisory Committee Act. In addition, Dr. Garrick asked members of the public who were present and had something to contribute to the meeting to inform the ACNW staff so that time could be allocated for them to speak. He concluded his report by noting the following items of interest.

- The following office/personnel announcements have been made since the 148th meeting in February 2004:

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- On March 22, 2004, a reorganization within the Office of Nuclear Material Safety and Safeguards (NMSS) affecting the future interaction with the Department of Energy's (DOE's) Yucca Mountain project was announced. John Greeves has been designated Director, Division of Waste Management and Environmental Protection, and Bill Reamer, Director, Division of High-Level Waste Repository Safety.
- On March 31, 2004, Chairman Diaz announced a senior management realignment (Announcement No. 19). Of particular interest to the ACNW is that Luis Reyes, Region II Administrator, will become the Executive Director for Operations (EDO). Carl Paperiello will replace Ashok Thadani as Director of the Office of Nuclear Regulatory Research (RES) and will be replaced as Deputy EDO for Materials, Research, and State Programs by Martin Virgilio. Jack Strosnider will be Director, NMSS. Appointments were to be made effective ASAP.
- An abstract entitled, "Future Volcanism at Yucca Mountain-Statistical Insights from the Non-Detection of Basalt Intrusions in the Potential Repository," co-authored by Neil Coleman and Lee Abramsom, RES, has been accepted for oral presentation at the 2004 American Geophysical Union Joint Assembly, May 17-21, 2004, Montreal, Canada.
- Margaret Chu, Director, Office of Civilian Radioactive Waste Management (OCRWM), DOE, stated recently before the National Association of Regulatory Utility Commissioners that the single most important factor governing the DOE's ability to meet the 2010 deadline for opening Yucca Mountain is fiscal year 2005 funding. (The Administration's request for 2005 is \$880 million and will be \$1 billion for each of the next 3 years.)
- Nebraska lost its appeal with the U.S. Court of Appeals for the Eighth Circuit Court, which upheld a District Court judgment that the State should pay \$151.4 million to the Central Interstate Low-Level Waste (LLW) Compact Commission.
- The French nuclear waste agency, ANDRA, plans to submit a complete safety case for a geological waste repository to nuclear regulator DGSNR by the end of March. The submission will include a precise definition of waste packages to be emplaced in such a repository. Electricité de France (EDF) has said it is essential that a geological waste repository be in operation by 2008-2009. The dose criteria is 25 mrem/yr for 10,000 years with evaluation out to 100,000 years with the same dose threshold.
- The U.S. Court of Appeals for the District of Columbia said it found no evidence that Congress intended the Nuclear Waste Policy Act to prohibit the NRC from issuing a license to a privately owned independent spent fuel storage installation (ISFSI).
- American Ecology reported a net loss of \$8.6 million for 2003, reflecting a \$21 million writeoff of site development costs related to the failed low-level waste disposal project planned for Ward Valley in California.

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- DOE has hired a Richmond, Virginia, law firm to represent DOE during repository licensing proceedings at NRC. DOE spokesman Joseph Davis said that under the contract DOE signed with Hunton & Williams, the amount the firm will receive hinges on the amount of work done. The current contract ceiling is approximately \$45 million for the 5-year base period.
- A bill approved recently by the Utah House would require the legislature and the Governor to give explicit approval anytime Envirocare seeks to dispose of radioactive waste that is hotter than Class A. The legislation would not give Utah elected leaders any say over high-level waste (HLW), such as the federally licensed facility planned for the Skull Valley Goshute Reservation.

II. UPDATE ON WEST VALLEY AND PERFORMANCE ASSESSMENT PLANS (OPEN)

[Mr. Richard Major was the Designated Federal Official for this portion of the meeting]

Chad Glenn presented a general description of the West Valley site and the current status of the West Valley Decommissioning Project. He explained that West Valley is a complex decommissioning site with a number of challenging issues. These issues will be addressed in a manner that protects the public health and safety and achieves some balance between what is economically and technically feasible.

Beginning in the early 1960s, the New York State Energy Research and Development Authority (NYSERDA) and Nuclear Fuel Services (NFS) constructed and began operating a nuclear fuel reprocessing facility under an Atomic Energy Commission license. The West Valley facility conducted spent fuel reprocessing from 1966 to 1972. In 1972, the facility closed for modifications required by new safety requirements. NFS decided compliance with the new requirements would be too expensive and left the fuel-reprocessing business.

In 1981, Congress passed the West Valley Demonstration Project Act (WVDP). The act authorized DOE to demonstrate a method for solidifying 600,000 gallons of liquid HLW that remained at the site. The act also directed DOE to develop containers for holding and transporting the solidified waste, to arrange for its transportation to a Federal repository, and disposal of low-level and transuranic waste resulting from solidifying HLW. DOE is also responsible for decontaminating and decommissioning the facilities used at the site.

In 1981, DOE and NYSERDA entered into a cooperative agreement. At the same time DOE and NRC entered into an agreement. The title for the HLW was transferred to DOE for as long as it takes to complete the project. NYSERDA's license was put in abeyance in 1981 and DOE took control of the facilities in 1982. In 2002 NRC issued its decommissioning criteria (the License Termination Rule, 10 CFR Part 20, Subpart E) for the WVDP and later in 2002 DOE completed the HLW solidification campaign.

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West Valley is located in western New York about 30 miles south of Buffalo. The site contains 3300 acres owned by New York State and is called the Western New York Nuclear Service Center. The WVDP consists of 200 acres. Cattaraugus Creek is the main drainage channel for the area. The creek drains into Lake Erie.

The site still contains residual contamination from activities over the years. Areas that contain contamination include waste burial areas on the South Plateau of the WVDP. There are two burial areas: one licensed by the NRC and the other licensed by New York State. The North Plateau of the WVDP (which contains the reprocessing and vitrification facilities) contains a groundwater plume, a cesium prong, creek sediments, and the HLW tanks. The residual contamination in these areas will be evaluated in the decommissioning environmental impact statement (EIS) and in the decommissioning plan (DP).

The State-licensed disposal area (SDA) contains 2.4 million cubic feet of waste with 130,000 Ci of activity. The LLW came from fuel cycle, industrial, medical, and research facilities. The SDA is covered with soil and a synthetic cover. The NRC-licensed disposal area (NDA) contains approximately 360,000 cubic feet of waste with about 300,000 Ci of activity. The waste includes hardware and equipment, spent fuel hulls, sludges, filters, and a damaged spent fuel element. This waste came from the reprocessing operation.

The South Plateau also contains a drum cell. Here 20,000 cement stabilized drums containing treated supernatant are stored. DOE plans to ship all the drum cell waste to a disposal facility in the next few years.

The North Plateau has a radioactive groundwater plume principally containing ⁹⁰Sr. The source of radioactivity was a spill in the process building during reprocessing operations. The plume is being pumped and treated from three extractions wells. A treatment wall constructed and backfilled with zeolite is being used to absorb the ⁹⁰Sr. The ¹³⁷Cs prong was caused by an atmospheric release from the process building stack during reprocessing operations. There are low levels of ¹³⁷Cs contamination in soils extending from the reprocessing plant northwest across the site boundary. Some creek sediments have elevated levels of ¹³⁷Cs resulting from previous untreated lagoon discharges.

The North Plateau also contains the process building, vitrification facility, and HLW tanks. There are four waste tanks, two large and two small. These facilities must be decontaminated and decommissioned. These facilities will be addressed in the decommissioning EIS and DOE's DP. The process building holds the 275 HLW canisters that are in storage awaiting shipment to a geologic repository. There is a recently constructed remote handling facility that will be used to prepare high-activity waste for offsite disposal.

The staff described the current state of activities at the site. The NRC staff is implementing the Commission's final policy statement for the WVDP. The final policy statement prescribes the NRC's License Termination Rule (LTR) as the decommissioning criterion for the site. The Commission recognized that the decommissioning of the West Valley site will present some

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unique challenges which may require some unique solutions. The final policy statement provides flexibility to consider the approaches for parts of the site where cleanup to the LTR dose limit is prohibitively expensive or technically impractical. Other approaches to LTR compliance might include robust engineered barriers, a long-term license, or an exemption. It must be demonstrated that public health and safety is protected.

DOE is presently developing a DP. The DP will provide the basis for NRC's determination of whether the proposed action meets the LTR. DOE intends to submit the DP in September 2004. The DOE will maintain and update the DP as needed to be consistent with the decommissioning EIS. The NRC intends to issue a safety evaluation report documenting the results of its safety and environmental review after the issuance of the decommissioning EIS record of decision.

The scope of DOE's DP will include DOE's proposed action and a demonstration of compliance with the decommissioning criteria and evaluation of residual activity for the entire 3300-acre site. The DP will include planned decommissioning activities, the radiation contamination status of facilities, dose modeling, an ALARA analysis, and a final status survey. The DP will also include supporting information for DOE's waste incidental to the reprocessing determination for the residual material in the HLW tanks. The NRC staff has asked DOE to identify which parts of the site will be suitable for unrestricted release or for restricted release with some kind of institutional controls and which areas might remain under license.

Ms. Anna Bradford presented an overview of the EIS preparation for the Western New York Nuclear Service Center. A draft EIS for West Valley was published in January 1996. The NRC staff provided extensive comments on this DEIS. Examples of the staff's concerns were the need for an adequate long-term performance assessment (PA) and for realistic dose estimates and the need to identify a preferred alternative. The publication of the DEIS predates the LTR and final policy statement. In 2001, DOE's National Environmental Policy Act strategy was revised to separate the EIS into two separate documents. One EIS would focus on waste management, the other on decommissioning and long-term stewardship.

The final waste management EIS was published in December 2003; it addressed the management of wastes already in storage or those that would be generated over the next 10 years during decontamination and decommissioning activities. DOE's preferred alternative was to keep the HLW on site until it had a destination; ship LLW and mixed waste to either a DOE or a commercial facility, and ship the transuranic (TRU) waste to the Waste Isolation Pilot Project. The record of decision for the EIS has yet to be published. The NRC staff had no involvement in the development of this EIS.

The decommissioning EIS addresses various decommissioning options and long-term stewardship. DOE and NYSERDA will have the lead responsibility for producing the EIS; the NRC is a cooperating agency. The staff is currently reviewing draft, predecisional documents for this EIS.

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The decommissioning EIS is evaluating five alternatives. Alternative 1 would require all buildings, structures, and burial waste to be removed and shipped off site, allowing unrestricted use of the site. Alternative 2 would remove all facilities from the North Plateau; the South Plateau burial grounds would remain under license. A third alternative would provide restricted release for the North Plateau with buildings rubblized and HLW tanks capped in place; the South Plateau would continue under license. The fourth alternative is the no-action alternative; the entire site would be monitored and maintained. The fifth, and DOE's preferred, alternative is to allow restricted release for the North Plateau (process building left standing, decontaminated to meet restricted release limits), and to continue to license the South Plateau burial sites. At this point cost estimates have not been made, but the green field alternative in the 1996 draft EIS would have cost \$8 billion with 9.3 million cubic feet of radioactive waste being shipped off site.

Ms. Bradford believes the PA for the EIS should be the same as the PA for the decommissioning plan. The EIS should evaluate the entire 3300-acre site, including the SDA. Impacts beyond 1000 years (the timeframe of regulatory interest in the LTR) should be analyzed. The staff also expects impacts from incidental waste to be evaluated and a cost-benefit analysis should be included.

The NRC and other cooperating agencies have completed reviews of the following supporting EIS documents in the last 6 months:

- NDA and SDA characterization reports
- HLW tank farm characterization reports
- Four EIS appendices related to PA,
 - Long-term PA methodology
 - Long-term PA models
 - Hydrogeology Analysis
 - Erosion studies.

The draft decommissioning and long-term stewardship EIS is scheduled for public release in November 2006. The final EIS is scheduled for public release in October 2007.

In response to questions, Ms. Bradford said the land around West Valley is currently agricultural. The assumption is that future land use will include farming.

Dr. David Esh presented the general approach for the NRC staff review of the PA of the West Valley site. From a PA perspective, the complexity of the West Valley site is high. There are significant potential source terms for contamination including: the process Building, the HLW tanks, the NDA, the SDA, the ⁹⁰Sr plume, the ¹³⁷Cs prong, and the LLW treatment facility/lagoons.

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In response to a question, Dr. Esh characterized the geohydrologic environment as moderate to high in complexity. There are some aspects from a PA perspective that make the site easier to deal with; for one thing, the site doesn't have a large unsaturated zone with the associated complexities of modeling radionuclide transport through the unsaturated zone.

The site is separated into North and South Plateaus primarily based on hydrogeology considerations. The water availability on each plateau affects the PA dose to a resident farmer. Water availability may be limited on the South Plateau. The site experiences relatively high rates of erosion, which can have a number of implications for a PA. Engineered barriers are expected to be used as part of the site decommissioning, although it's too early to say how important they will be.

The regulatory framework for the PA comes from the LTR (10 CFR Part 20, Subpart E). The LTR permits unrestricted release of a site if a 25 mrem annual public dose limit can be met with no controls or maintenance. A restricted release of the site is permitted if using institutional controls and maintenance and monitoring, a 25 mrem/yr public dose can be met. If institutional controls fail, a 100 (or 500 in some cases) mrem/year public dose limit must still be met for a restricted release termination. There are alternate criteria available under the LTR, but the staff does not expect the WVDP to exercise this option. Staff guidance for performing a PA stresses using reasonably foreseeable scenarios and current regional practices.

Dr. Esh described NRC's expectations for DOE's PA. DOE should incorporate as much realism as practical in the PA. The PA should provide a liberal consideration of uncertainty. The PA should provide probabilistic analyses. If the analyses are deterministic, they should include numerous sensitivity and uncertainty analyses. DOE's models are mostly internally developed for this project; therefore, QA is important. The staff expects DOE to provide information on confidence building, including software and calculational verification and model support. Receptors should be based on reasonably foreseeable scenarios and current regional practices.

When asked about DOE's approach to uncertainty, Dr. Esh said it was a mixed bag. In some cases the Department is taking a conservative approach to parameter or model selection. In other cases DOE will do a sensitivity analyses to look at the importance of the uncertainty present. Finally, some parts of the system are being handled stochastically.

There are two key elements that can significantly influence the PA. Engineered barriers (grout, drainage barriers, slurry walls, french drains) may perform key functions at the site. A technical basis is essential for as-emplaced performance and long-term performance. A second key process that could affect the PA is surface erosion. Erosion rates may be high enough to expose waste. Staff expectations include a rigorous consideration of uncertainty in the long-term prediction of erosion rates and consideration of how erosion may impact receptors. The staff is concerned about stream meandering, which can move the bank of the stream into the waste. The staff is also concerned about gullyng or the formation of new channels.

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The plan for the NRC staff's review of DOE's PA was presented. In addition to NRC headquarters staff, the Center for Nuclear Waste Regulatory Analyses (CNWRA) will provide technical support. The staff has begun to review draft sections of the EIS that describe the PA review. The staff's review will be risk-informed.

The staff will likely begin development of its own PA model of the site with the commercial GoldSim software package in the summer of 2004. The staff will use this model to risk-inform its review to the extent practical. The staff may look at some uncertainties in more detail than DOE will have done. In general the staff will do a confirmatory analysis and see if its PA yields results similar to DOE's. The staff intends to make its user-friendly PA model available to the public as part of the staff's outreach effort.

Dr. Esh discussed the ⁹⁰Sr plume to further illustrate the complexity of the site. The plume originates from a corner of the process building. The plume extends to the northeast about 1000 feet and the plume itself is 150 feet wide. The groundwater contamination at its highest concentration is 100,000 pico curies per liter. The water table at West Valley is shallow. The plume is being transported in a shallow unit that is 20 feet in depth. Below the shallow sand and gravel unit lies an impermeable unit that prevents vertical contamination.

DOE is pumping the groundwater containing the plume to prevent offsite migration. ⁹⁰Sr has a 29-year half-life, so after 245 years contamination would decay away and be at an acceptable level. Among the questions facing the PA analyst is who are the appropriate receptors? Are controls and/or remediation necessary for the ⁹⁰Sr plume? Do you assume a receptor at the site boundary (much further away than the project boundary)? How much credit is given for dilution of radionuclides in the surface water bodies? (A surface water user would get a much lower dose than a groundwater user.) Receptor location (the critical group) and their food and water use can have a big influence on the outcome of the PA.

The SDA has a slurry wall and geomembrane cover. The cover is designed to limit water infiltration into waste. The slurry wall is designed to keep groundwater out of the SDA. The NDA has an interceptor trench around it designed to limit the transport of contamination from the burial site.

The ⁹⁰Sr plume was caused by a spill of fuel that had been dissolved during processing. Only the ⁹⁰Sr is migrating. The other components of the fuel are not migrating. The other elements can be seen in the soil and groundwater. Absorption coefficients may be large enough to fix the other radionuclides in place. This is an area for future study.

Dr. Esh concluded by saying the review of the West Valley PA is expected to be very difficult. The review will be performed in a risk-informed manner. The NRC staff will be supported by technical experts at the CNWRA. The staff will likely develop an independent PA model of the site.

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During a question and answer session between the Committee and the participants, the following points were raised.

Tank bottoms could become waste incidental to reprocessing (rather than HLW) if the radionuclides in the bottoms are removed to the extent economically and technically feasible. The waste must also be managed to meet the performance objectives of 10 CFR Part 61, Subpart C. Such a determination of waste incidental to reprocessing would support the alternative of in place tank disposal.

Dr. Esh believed it will be more difficult to be risk-informed if you are doing a deterministic analysis. You will be unable to identify key parameters from a risk perspective. One element that is essential for an analysis is to use a best-estimate, realistic calculation. Conservatism implies you know the true answer but are setting higher values to ensure protection. When dealing with uncertainty, conservatism may be used to escape from the task of collecting information on a particular parameter. If the staff develops an independent PA model, it will be probabilistic.

When asked to predict the peak dose, Dr. Esh thought it would be caused by shorter half-life radionuclides. Actinides with their long half-lives seem to be fixed in the soil and not able to migrate. There are long-lived materials at various sources on site, including ruptured fuel in the NDA and plutonium from SNAP (space nuclear auxiliary power sources) in the SDA. Much of the confidence from the PA will come from the ability of geology to retain long-lived radionuclides. He also said that this estimate is only based on an educated guess. Calculations could prove that long-lived radionuclides are the greater risk.

Mr. Dan Sullivan, DOE at West Valley, believes that the DOE's PA associated with the DP and EIS will answer today's open questions. The Department believes it has a handle on many of the difficult questions facing the West Valley site. Science Applications International Corporation, Inc., will refine the models and perform the PA for DOE.

Mr. Paul Piciulo, NYSERDA, reminded the Committee that much of the work being done now for the PA will form the basis for the termination of the NRC license, if NYSERDA seeks a license termination.

In response to questions, Dr. Esh said a number of chemical components used in reprocessing, in addition to the radionuclides are contaminating the site. The chemical contamination might lead to reducing conditions in the groundwater. Whether this is the case is a subject of future study.

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**III. RISK-INFORMED REGULATION FOR THE OFFICE OF NUCLEAR MATERIAL
SAFETY AND SAFEGUARDS ACTIVITIES (OPEN)**

[Mr. Neil Coleman was the Designated Federal Official for this portion of the meeting.]

Christiana Lui, James Smith, and Alan Rubin gave the Committee an overview of the proposed Risk-Informed Decisionmaking Process in NMSS. Two pilot studies had been conducted to illustrate the risk-informed process and draft guidance: (1) dry cask storage, and (2) chemical agent detectors/monitors. The presentations covered the decisionmaking process and decision metrics for routine/normal exposures, accident risks, and cost-benefit analyses. Accomplishments to date include (1) development of draft guidance, (2) development of draft accident risk guidelines for the public and workers related to nuclear materials and waste activities, (3) completion of two pilot studies, and (4) identification of key issues related to the use of the risk guidelines.

Much of the discussion focused on the task group's emphasis on identifying *collective* dose as a measure of risk and health effects. The Committee questioned this and recommended that *individual* dose be the focus, including use of concepts like the reasonably maximally exposed individual. The NMSS staff had considered the alternatives and found that the doses were usually trivial. Unless collective dose was considered, there was no increase in cancer risk. Vice Chairman Ryan advised the staff to consider not using collective dose at levels of dose that are trivial compared to background levels. If the individual dose case is near zero, you can't easily measure it. You can't add up the doses and make meaning out of it. Dr. Ryan suggested going with the individual dose because a stylized case of individual risk is more easily understood and defensible than aggregating dose over some large population. Collective dose in such a case doesn't mean anything.

Chairman Garrick said that what the staff needs now is an information base, a database, derived from more experience. Then the issue of appropriate standards for various categories of licensees will manifest itself. Experience will have to be the basis. Chairman Garrick noted that the West Valley site could help provide that experience because it includes just about every waste and decommissioning high-level/low-level problem. West Valley could be a practical site for getting some of the experience that's needed to assess the sensibility of standards. Mr. Alan Rubin (NRC staff) noted that a lot is also being learned in doing the pilot dry cask probabilistic risk assessment. Chairman Garrick observed that more pilot studies are needed that are in the mainstream of the issues of decommissioning and waste associated with NMSS activities (i.e., similar to projects like the Sequoyah Fuels cleanup or a West Valley cleanup). A similar cleanup would preclude really attractive opportunities for implementing risk-informed regulation.

Dr. Weiner agreed that a site like West Valley covers a wide range of risks and applications. In addition, Vice Chairman Ryan suggested selecting an example from an area like industrial radiography to track through the risk-informed process.

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IV. ENVIRONMENTAL PROTECTION AGENCY ADVANCED NOTICE OF PROPOSED RULEMAKING, 40 CODE OF FEDERAL REGULATIONS CHAPTER 1, "APPROACHES TO AN INTEGRATED FRAMEWORK FOR MANAGEMENT AND DISPOSAL OF LOW-ACTIVITY RADIOACTIVE WASTE: REQUEST FOR COMMENT"

[Mr. Howard Larson was the Designated Federal Official for this portion of the meeting.]

Mr. Dan Schultheisz, Project Manager, Office of Radiation and Indoor Air, Radiation Protection Division, EPA, said that the Advanced Notice of Public Rulemaking (ANPR), which is not a proposed rule but rather a vehicle for soliciting public comment and dialogue, was published in November 2003 and the comment period, which had been extended, ended on May 17, 2004. The extension was provided to ensure that local communities were aware of the ANPR and would have sufficient time to comment.

The driving force behind the ANPR was the belief that efficient disposal of low-activity waste is discouraged not only by the limited disposal options but also by dual and inconsistent regulation. Additionally there are only a few current disposal sites for LLW and these involve long transportation routes. Such conditions result in increased exposure and risk to human health and the environment. In addition to what is usually considered to be LLW, there are large volumes of both uranium and thorium mill tailings as well as technologically enhanced naturally occurring radioactive material.

Mr. Schultheisz stated that the ANPR was an outgrowth of a 1999 proposal focused on the mixed waste problem for NRC and State licensees. From that start the agency has undertaken a broader consideration of potential wastes and taken a "bigger picture" look at the current origin-based system. The overall approach outlined in the ANPR is to identify additional protective options appropriate to potential risks of disposal and apply consistent methods to evaluate the risks, regardless of origin. It is EPA's belief that these additional disposal options will result in greater protection of public health and permit a more efficient use of resources and site cleanups. A primary consideration is that the ANPR articulates, for the first time, the potential universe of "low activity."

The ANPR proposes considering the use of hazardous landfills, suggesting that they have explicit design and engineering requirements and a robust regulatory framework, have been used for radioactive materials in the past, and are designed to contain chemicals that do present a significant risk to public health. Also discussed in the ANPR is the potential use of other types of landfills (e.g., solid waste landfills).

Mr. Schultheisz discussed potential regulatory and nonregulatory approaches, ending his discussion by indicating the remaining major uncertainties (need and level of both State support and NRC oversight are not clear, concerns over liability and public perception, and public acceptance) remain a focus of this particular action.

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He discussed the spectrum of the 115 comments received to date (in addition to the public, two U.S. Senators, five States, the Southwest Compact, a Resources Conservation Recovery Act-C facility operator, the NRC, and several interest groups).

After many scheduled meetings with stakeholders and a detailed evaluation and analysis of the public comments, EPA will develop a recommendation for a future course of action

Mr. Adam Klinger, EPA, stated that the general theme of the ANPR was "Why not treat similar risks similarly regardless of origin?"

Members asked several questions, including the degree of consideration being given to international practices in this arena. (The response to that question was "essentially none," but that perhaps there should be.) It was also suggested that EPA look at the agency's experience in dealing with the licensing of the WIPP as well as its dealings with the State and other stakeholders.

The Committee concluded the session by thanking the EPA representatives for their most interesting participation and requesting that the Committee be kept informed as EPA decides whether to proceed with a rulemaking that addresses the questions associated with the ANPR.

**V. NUCLEAR REGULATORY COMMISSION DIVISION OF WASTE MANAGEMENT
EVALUATION OF THE DEPARTMENT OF ENERGY BUNDLING APPROACH (OPEN)**

[Mr. Neil Coleman was the Designated Federal Official for this portion of the meeting.]

Mr. Greg Hatchett, Mr. Chris McKenney, and Dr. John Trapp, staff from the NRC's Division of HLW Repository Safety, presented an evaluation of DOE's approach to "bundle" agreement items. They discussed the process for reviewing technical basis documents and used TBD#12, "Biosphere Transport," as an example. The staff has finished reviewing five biosphere agreements. The staff is still reviewing two igneous activity agreements (IA 2.11 and 2.14) related to mass loading parameters used to calculate dose from contaminated volcanic ash. It is expected that a staff request for additional information on these agreements will be sent to DOE in June 2004.

Chairman Garrick asked whether there is guidance from NRC to DOE to encourage the strategy of addressing the agreements of high significance to waste isolation? Mr. Hatchett responded that the staff is reviewing that question with respect to DOE's new schedule for submitting agreement items. For example, what will be the disposition of the low-significant agreements? How are the low-risk significant items related to other agreements? Mr. Hatchett noted that low-significant agreements that relate to medium- or high-significant agreements relevant to DOE's safety case should be investigated sufficiently to assure that combined effects have been considered. But low-significant agreements that mainly relate to overall scope, or add greater depth or perspective, are being considered in a different light regarding disposition. Mr. Hatchett said that the NRC staff seeks ways to more efficiently and effectively

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address low-significant agreements in the context of the significance baseline. If low-risk-significant items address compliance issues, DOE would still have to provide sufficient justification, whether they are high, medium, or low. Mr. Hatchett further stated that the staff is thinking about more efficient ways to handle agreements and to implement the risk insights.

Dr. King Stablein (NRC staff) noted that in various management meetings with DOE, the staff has pointed out the value of DOE providing information on the high-risk-significant agreements as early as possible before a license application is received, so that the staff can deal with those up front. In some instances, DOE's schedule does not appear to allow it to get this information to NRC as soon as the staff would like.

Chairman Garrick noted that one reason to employ a risk-informed process is that it allows the staff to have a better technical basis for prioritizing work. If that process isn't implemented, then NRC will not get the full benefit of the process.

Mr. Mike Lee (ACNW staff) noted that, for many years, NRC's Division of Waste Management has had a goal for its pre-licensing consultations with DOE. That goal is to ensure DOE submits a complete and of high-quality license application. Based on the recent quality assurance (QA) evaluation, DOE might have additional work to do to ensure that a license application is complete and high quality. Mr. Lee also noted a possible conflict between the demand for additional information to address KTI agreements, and the DOE's other main goal of preparing a license application. Dr. Stablein responded that this was really a question for DOE as it relates to DOE's work flow. He noted that DOE is extremely busy, as is the NRC staff. There's a lot going on in the high-level waste program, but the NRC staff has not made any judgment about DOE's readiness to submit an application by December 2004. Dr. Stablein noted that when the license application arrives, the staff hopes to be ready to give it a good, complete review.

**VI. DEPARTMENT OF ENERGY SCHEDULE FOR RESPONSES TO KEY TECHNICAL
ISSUE AGREEMENTS (OPEN)**

[Mr. Neil Coleman was the Designated Federal Official for this portion of the meeting.]

Messrs. Tim Gunter (DOE) and Donald Beckman (Bechtel SAIC Company, LLC) discussed the status of DOE's responses to the remaining KTI agreement items. DOE considers that it has fully responded to 168 of the original 293 agreement items. Seven of the 14 supporting technical basis documents have also been submitted to NRC. DOE has submitted all of the agreement items for saturated zone flow and transport and for biosphere transport. The largest number of agreements that remain to be submitted, 21 relate to the waste package and drip shield. DOE expects to respond to the remaining 125 KTI agreements and additional information needs by August of 2004. The current status and plans for completion of any remaining work under criticality and the total system PA will be provided at that time.

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Mr. Howard Larson (ACNW staff) asked what is meant by DOE has "fully responded" to 168 agreements. This appears to be DOE's evaluation because the agreements are not yet complete in the view of the NRC staff. Mr. Gunter replied that "fully responded" means DOE has submitted a response that DOE thinks will fully address the agreement, and then it's up to NRC to determine whether it is complete or not. Chairman Garrick noted that agreements are referred to as "responded to" and "addressed" and asked what this meant. Mr. Gunter replied that DOE didn't want to say the agreements were complete because that's up to NRC. DOE can submit what it believes is a full response, but there can be additional information requests coming back from the NRC staff. Once those are satisfied, NRC determines whether an agreement is complete.

Dr. Weiner asked whether DOE's success rate at resolving agreements is improving. Have there been fewer back and forth requests for information? Mr. Gunter noted that DOE submitted a large number of documents last fall and hasn't received an evaluation of those pending review by the NRC staff. He noted that some of the NRC evaluations are on their way. Some agreements will be closed and some will have requests for additional information. Mr. Gunter stated that the technical basis documents in the recent agreement submittals appear to be more complete than some of the earlier submittals. Mr. Larson followed up on the difference between agreements being "fully responded" and "addressed." Mr. Gunter stated that those terms were used pretty much interchangeably. There's no real difference.

Mr. Gunter noted that NRC's recent QA evaluation of three analysis model reports (AMRs) identified the need for more transparency, flexibility, and defensibility in some of DOE's technical basis documents. DOE is assembling a team to review the AMRs from that perspective to identify where some improvements are needed. Mr. Beckman noted that the team involves five major disciplines that include both the natural and engineered barrier systems with a mix of both technical personnel and regulatory staff. The team will look at each AMR from a traceability, transparency, and technical defensibility perspective.

Mr. Gunter noted that some agreements will now be addressed earlier than anticipated. Chairman Garrick asked whether more resources were applied to achieve this? Mr. Gunter said that more resources were used, including a dedicated team referred to as the "KTI" completion group.

Dr. Weiner asked about the technical areas in which "high-risk-significant" agreements remain to be completed. Mr. Beckman noted that container life and source term contain several agreements that have high risk significance. The repository design and thermo-mechanical effects have several agreements of high significance that involve tunnel stability and rock mechanics properties. Total system performance assessment has four or five. Under igneous activity, the dike-drift interaction issue remains of high risk significance.

Dr. Weiner commented that the high-risk-significant agreements seem to be the ones DOE should focus on. Mr. Beckman replied that the timing of those items depends on the sequence of the analytical work. For example, radionuclide transport involves radionuclide solubility and

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the impact on chemical conditions. That analysis is just now being completed and is available in draft form. Therefore the timing (availability) of process model results drives the ability to generate responses to related KTIs. Similarly, agreements that are tunnel stability related are affected by the seismic studies for the tunnel stability calculations. Mr. Beckman noted that in this way agreement submittals are driven more by the development sequence of the analysis than by DOE's desire to move them up in the schedule.

Dr. Weiner asked about corrosion chemistry. The issue has been around for a long time, and this project has been under way for 20 years. She wondered why it is taking so long to develop technical documents related to corrosion. Mr. Beckman noted that, over the last year, there has been quite a bit of additional thinking and development on the project with respect to the treatment of passive film behavior and localized corrosion, and the models have undergone continued evolution, and new data have come in. Data from the analytical work have to be analyzed and prepared in a reportable form to apply to the KTIs.

Dr. Garrick noted that early on DOE received considerable criticism for the apparent emphasis that was being given to engineered systems over the analysis of the natural system, and the NRC has always indicated that safety has to come from both sources. He stated that most of the activity still seems to center around the engineered barriers. He wondered if this is because DOE feels they have been reasonably responsive with respect to the natural system and its containment capability. Mr. Beckman noted that part of this perception reflects the interest of the NRC staff in the engineered barriers. DOE is responding to issues raised by the staff or questions asked about the responses to those issues.

Mr. Neil Coleman (ACNW staff) asked about the kind of planning the NRC staff has done for upcoming reviews. DOE is planning to send in a large number of agreement items in the near future. Has the risk baseline work been used to prioritize the upcoming reviews? For example, would the higher risk ranking agreements be reviewed first? Mr. Tim McCartin (NRC staff) replied that each bundle has a variety of agreements in it, and certainly staff will look deeper into high-risk-significant items. But a bundle has a package of agreements that are all interrelated, and you can't necessarily pull out a few high-risk-significant things and review them separately from the others. Dr. Garrick noted a possible problem, that the groupings are not done by risk, but rather by system, and so each bundle of agreements has a mix of all levels of risk. Dr. Andrew Campbell (NRC staff) replied that when the staff reviews the bundles, it usually has a mix of agreements from different KTIs. Those are submitted as attachments to what's called a technical basis document, and those attachments refer to the technical basis document. So the staff really has to review the whole bundle. Risk information will be used in that review, but it's difficult, and it wouldn't be very productive, to pull out the high-risk-significant agreements and only focus on them. The staff has to look at the whole bundle and evaluate it in the context of risk.

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VII. UPDATE ON RISK INSIGHTS (OPEN)

[Mr. Michael Lee was the Designated Federal Official for this portion of the meeting.]

At its 148th meeting, the ACNW was briefed on initial results of the staff's risk insights initiative (dated June 2003). Embracing past ACNW advice,¹ the NRC staff developed an integrated synopsis report that describes its understanding of the key contributors to performance for a geologic repository at Yucca Mountain. This report is entitled the "Risk Insights Baseline Report." It reflects the informal expert opinion of the NRC staff regarding the risk significance² of 14 integrated subissues (ISIs) to overall repository performance. This opinion was based on the staff's own independent PA work, reviews of DOE PAs, and other documented sources.

For each of the 14 model abstractions found in the Yucca Mountain Review Plan (NUREG-1804),³ the staff has developed the following types of information in its report:

1. ranking of risk significance to waste isolation
2. discussion of the specific risk insights, including the technical basis for the staff's judgment and the identification of uncertainties associated with that judgment
3. recommendations for areas for additional analyses to reduce the uncertainty in the judgments
4. Identification of principal technical references

¹This past advice has included recommendations that the staff (a) use PA results to judge quantitatively the effectiveness of individual repository barriers; (b) develop and use PA techniques such as a post-processor to rank-order individual barrier contribution to performance; (c) use probabilistic methods (i.e., the risk triplet) in PA modeling; and (d) use PA analyses to prioritize key technical issues, and to reexamine KTIs and attendant subissues.

²Risk significance was evaluated by the staff relative to the waste isolation capabilities of the repository system. In general, high-risk significance is associated with features, events, and processes that could (a) affect the integrity and longevity of a large number of waste packages; (b) affect the release of radionuclides from the waste form and waste package; or (c) affect the transport of radionuclides through the geosphere and biosphere. Medium-risk significance is associated with a lesser effect on waste packages, radionuclide releases, or radionuclide transport. Low-risk significance is associated with no or negligible effect.

³Independent of the risk insights initiative, the NRC staff identified 14 model abstractions that, in its view, collectively contribute to the waste isolation capabilities of the repository system. Within each of these 14 model abstractions, now called ISIs, the staff has also identified key features, events, and process important to repository performance.

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Using the synthesized information described above, the NRC categorized the risk significance of the so-called 293 DOE/NRC KTI agreements. In general, the risk significance of an agreement is associated with the level of uncertainty addressed by the agreement and the relationship of the uncertainty to risk.

At its 149th meeting, the NRC staff provided a briefing on the contents of the final report (which was in concurrence at the time of the briefing). Speaking for the NRC staff, Dr. Brett Leslie reviewed the risk insights and rankings for each of the 14 ISIs as a result of the staff's finalization of the report. He also noted that the risk ranking for about 20 percent of the KTI agreements had changed from the staff's initial assessment provided to the Commission in a memorandum dated June 5, 2003. In his presentation, Dr. Leslie provided an example of why a rating might change. One new risk insight has been added by the staff relating to the number of waste packages affected by a possible igneous eruptive event at the site. Dr. Leslie noted that this item has been identified consistently by DOE as a dominant contributor to risk. Despite adjustments in the ranking assignments, Dr. Leslie noted during questioning that the relative proportions of the agreements in the three respective risk categories (high, medium, low) have remained fixed at 41/92/160, respectively. No KTI agreements have been eliminated from further consideration as a result of the staff's evaluations. In closing, Dr. Leslie noted that the staff intends to use the Risk Insights Baseline Report in conjunction with the Yucca Mountain Review Plan (NUREG-1804) and the integrated issue resolution status report (NUREG-1762) to review DOE's license application. The "high," "medium," and "low" agreement designations are that staff's tool to identify where the staff will place the most emphasis in its review of the DOE safety case. He also noted that the staff will conduct additional PA analyses between now and the scheduled license application submittal to reduce the uncertainty in the risk judgments. The staff also intends to expand the risk insights report to include consideration of the pre-closure phase of repository operations.

Dr. Leslie's presentation was followed by a few questions (mostly clarifications) and brief comments from some of the ACNW members and their invited consultant, Dr. Clarke. At times during the staff rebuttal, he was assisted by Messrs. McCartin and Hatchett. Speaking for the NRC staff, Dr. Leslie noted in response to one question (from Dr. Weiner) that DOE's general approach to judging risk significance is how the presence or absence of a repository structure, system, or component affects the magnitude of the dose estimate. Citing zeolite geochemistry and climate change/infiltration rate coupling as examples, Dr. Leslie elaborated on differences in the respective staff approaches to the assessment of risk significance in response to questions from ACNW Members and staff.

(Later during its 149th meeting, as a general observation, Dr. Garrick noted that no net benefit from the risk ranking exercise had been realized to the overall DOE program because the NRC positions on the basic information requests embodied in the 293 KTI agreements had remained unchanged.)

VIII. SCIENTIFIC AND TECHNICAL PRIORITIES AT YUCCA MOUNTAIN (OPEN)

[Mr. Michael Lee was the Designated Federal Official for this portion of the meeting.]

For several years, there has been a dedicated staff at the Electric Power Research Institute (EPRI) tracking developments in the Yucca Mountain repository program. The key focus of this has been the PA work conducted both by the DOE and the NRC. The EPRI staff has also conducted iterative PAs for Yucca Mountain independent of those performed by the government staff and its contractors. The most recent results of EPRI's PA efforts are documented in a December 2003 report entitled "Scientific and Technical Priorities at Yucca Mountain." During this meeting, the "Committee was briefed by Dr. John Kessler, EPRI's HLW project manager, on the main findings from this report and EPRI's broader views on repository risk measures and the resolution of NRC-DOE KTI agreements.

Dr. Kessler began his presentation with an overview of the PA model used in EPRI's report. He described the major components of EPRI's performance model and key assumptions in model abstractions. In summary, he noted that EPRI's performance model assumes slow waste package and drip shield failure rates, limited diffusive releases from failed waste packages, beneficial radionuclide isolation in the unsaturated zone, and long groundwater travel times in a solubility-limited saturated zone. Following this introduction, he presented EPRI PA results that predict doses at 10,000 years that are about seven orders of magnitude lower than NRC's 10 CFR Part 63 limits. Dr. Kessler also presented results indicating that failure of two or more barriers would not cause the predicted doses from the repository to exceed NRC's limits.

The second portion of Dr. Kessler's presentation focused on EPRI's views on repository risk measures. Citing examples of EPRI sensitivity and uncertainty analyses, Dr. Kessler suggested that no single engineered or natural barrier, or repository feature, event, or process (FEP) is of high risk importance to overall repository performance.⁴ He argued that only certain "common mode failures," if they were to occur, might be risk significant. Unexpectedly corrosive local (near-field) conditions, simultaneous failure of multiple barriers, and dramatically higher repository temperatures were mentioned as possible common mode failure examples. In light of this work, Dr. Kessler expressed EPRI's view that the DOE and NRC staffs should focus their pre-licensing efforts on those issues that have the greatest risk significance. Citing 10 CFR Part 50⁵ power reactor licensing practice, which requires incremental regulatory decisionmaking, Dr. Kessler suggested that NRC should adopt that analogy to the ongoing KTI agreement process. Dr. Kessler argued that by virtue of the two-step Part 63 licensing process,

⁴In its 2003 analysis, EPRI has assumed that any engineered barrier and/or FEP exerts a significant influence on overall PA and is thus important when variation in that input parameter causes the dose risk estimates to shift by a "significant percentage," in this case, a "significant percentage" is defined in EPRI's 2003 report to be a 1 millirem per year shift relative to the 15-millirem standard or about a 7-percent change.

⁵"Domestic Licensing of Production and Utilization Facilities"

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which requires a separate decision to receive waste, and because there is no inherent risk to the public in the construction of the repository itself, it is not necessary for DOE to address all of NRC's technical concerns at this time, especially when a majority of these concerns relate to the post-closure performance of the repository and more than half of them are of low-risk significance.⁶ Dr. Kessler was careful to point out that EPRI was not advocating that DOE not provide information to the staff; rather, he acknowledged that NRC's Part 63 argues that DOE must demonstrate a fundamental understanding of repository system behavior regardless of its risk significance. Alternatively, he suggested that the information to be provided to the NRC should be commensurate with the decision the Commission is being asked to make at the time. Consequently, Dr. Kessler suggested that the types and kinds of KTI information provided by DOE should be DOE's decision to make, in the first instance, as the potential licensee.

In the last portion of his presentation, Dr. Kessler focused on EPRI's views regarding DOE's and NRC's risk prioritization activities. He cited three references as the basis for his comments: a 2002 DOE contractor report,⁷ the staff's preliminary "Risk Insights Baseline Report,"⁸ and a June 2003 NRC staff presentation to the ACNW.⁹ In summary, it was noted that EPRI agrees with the DOE approach to defining which FEPs and repository barriers are of "high risk significance"; however, EPRI does not believe that DOE's consideration of combined repository effects is risk informed. Dr. Kessler noted that EPRI partially agrees and partially disagrees with NRC's approach to determining risk significance.¹⁰

⁶In general, low-risk-significant KTI agreements are those considered by the NRC staff to have no or negligible effects on waste package performance, waste form/waste package radionuclide release rates, or radionuclide mobility through the geosphere and biosphere.

⁷Bechtel-SAIC, Inc., "Risk Information to Support Prioritization of PA Models," Las Vegas, TDR-WIS-PA-000009 Rev. 1, ICN 1, August 2002.

⁸Attachment 2 ("Baseline of Risk Insights") to staff memorandum entitled "Final Staff Response to March 19, 2003, Staff Requirements Memorandum on the Waste Arena Briefing--M030303A," dated June 5, 2003.

⁹Earlier presentation by Dr. Esh entitled "Status of the HLW Risk Insights Initiative," dated June 25, 2003.

¹⁰Absent from Dr. Kessler's remarks in this area were key recommendations from EPRI's 2003 report concerning technical work to address risk-significant issues in the Yucca Mountain program. In summary, EPRI has recommended that ongoing technical work to evaluate the effects of disruptive events on the release and transport of radionuclides would be valuable to complete. EPRI has also recommended that work related to the evaluation of common mode failures of the engineered barrier system should be completed. Lesser priority work identified by EPRI for completion included evaluation of colloid-aided transport. EPRI is also conducting an independent evaluation of the consequences of igneous activity. Although this work has not been completed by EPRI, EPRI's preliminary PA results suggest that current

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EPRI's formal presentation was followed by questions from individual ACNW Members. Dr. Kessler was asked to elaborate on some of his earlier discussion points and views. In response to a question from ACNW Member Hornberger, Mr. McCartin noted that DOE was not legally bound to address all KTI agreements prior to the submittal of a Part 63 license application.¹¹

NRC/DOE analyses overestimate risk from this potentially disruptive event.

¹¹Previously, the NRC staff has taken the position that all of the information needs contained in the 293 KTI agreements need to be addressed by DOE to ensure a complete and high-quality Part 63 license application; DOE has previously committed to address all of the agreements by the time of licensing.

III. Finding of No Significant Impact

The staff has prepared the EA (summarized above) in support of the proposed license amendment to release the facility for unrestricted use. The NRC staff has evaluated the Experiment Station's request, and the results of the surveys and the assessment, and has concluded that the completed action complies with Subpart E of 10 CFR Part 20. The staff has found that the environmental impacts from the proposed action are bounded by the impacts evaluated by the "Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Facilities" (NUREG-1496). On the basis of the EA, the NRC has concluded that the environmental impacts from the proposed action are expected to be insignificant and has determined not to prepare an environmental impact statement for the proposed action.

IV. Further Information

The EA and the documents related to this proposed action, including the application for the license amendment and supporting documentation, are available for inspection at NRC's Public Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html> (ADAMS Accession Nos. ML040840072, ML032541028, ML032790536, ML033630602 and ML040830619). These documents are also available for inspection and copying for a fee at the Region I Office, 475 Allendale Road, King of Prussia, PA 19406. Persons who do not have access to ADAMS, should contact the NRC PDR Reference staff by telephone at (800) 397-4209 or (301) 415-4737, or by e-mail to pdr@nrc.gov.

Dated at King of Prussia, Pennsylvania this 24th day of March, 2004.

For the Nuclear Regulatory Commission
John D. Kinneman,
Chief, Nuclear Materials Safety Branch 2,
Division of Nuclear Materials Safety, Region I

IFR Doc. 04-7315 Filed 3-31-04; 8:45 am
BILLING CODE 7590-01-P

**NUCLEAR REGULATORY COMMISSION****Advisory Committee on Nuclear Waste: Notice of Meeting**

The Advisory Committee on Nuclear Waste (ACNW) will hold its 149th meeting on April 20-22, 2004, Room T-2B3, 11545 Rockville Pike, Rockville, Maryland. The entire meeting will be open to public attendance. The schedule for this meeting is as follows:

Tuesday, April 20, 2004

1 p.m.-1:10 p.m.: *Opening Statement (Open)*—The Chairman will open the meeting with brief opening remarks, outline the topics to be discussed, and indicate items of interest.

1:10 p.m.-2:40 p.m.: *Update on West Valley and Performance Assessment (PA) Plan (Open)*—The Committee will hear from representatives of the NRC staff on the West Valley Demonstration Project and its Performance Assessment plans.

2:55 p.m.-4:30 p.m.: *Risk-Informed Regulation for NMSS Activities (Open)*—The Committee will hear presentations by and hold discussions with representatives of the NRC NMSS Risk Task Group regarding the current status of incorporating risk-informed regulations in NMSS activities.

4:45 p.m.-6 p.m.: *Preparation of ACNW Reports (Open)*—The Committee will discuss proposed ACNW reports on matters considered during this meeting regarding reports on West Valley Performance Assessment Plans, Risk-Informed Regulation for NMSS Activities, Biosphere Working Group, Public Interactions during November 2003 Nevada Field Trip (tentative), and ACNW Annual Report on Waste-Management-Related Research.

Wednesday, April 21, 2004

8:30 a.m.-8:40 a.m.: *Opening Statement (Open)*—The Chairman will make opening remarks regarding the conduct of today's sessions.

8:40 a.m.-10 a.m.: *EPA, 40 CFR Chapter 1, Advance Notice of Proposed Rulemaking (ANPR) "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste" (Open)*—The Committee will hear an information briefing by a representative of the EPA on its proposed ANPR which discusses alternatives for the disposal of waste containing low concentrations of radioactive material.

10:15 a.m.-11:15 a.m.: *Update on Risk Insights (Open)*—The Committee will hear a briefing by and hold discussions with the NRC staff on the recently published HLM Risk Insights Report.

11:15 a.m.-12:15 p.m.: *DOE Schedule for Responses to Key Technical Issue Agreements*—The Committee will hear a briefing by and hold discussions with a DOE representative on their amended timetable for responding to the 293 KTI agreements.

2 p.m.-4 p.m.: *DWM Evaluation of DOE Bundling Approach (Open)*—The Committee will hear presentations by and hold discussions with

representatives of the NRC staff on its evaluation of the DOE Bundling Approach. It is anticipated that the Biosphere bundle will be used as a representative sample.

4:15 p.m.-6 p.m.: *Preparation of ACNW Reports (Open)*—The Committee will discuss proposed ACNW reports on matters considered during this meeting.

Thursday, April 22, 2004

8:30 a.m.-8:35 a.m.: *Opening Statement (Open)*—The Chairman will make opening remarks regarding the conduct of today's sessions.

8:35 a.m.-12 Noon: *Preparation of ACRS Report (Open)*—The Committee will continue its discussion of the proposed ACNW letter reports.

12 Noon-12:15 p.m.: *Miscellaneous (Open)*—The Committee will discuss matters related to the conduct of Committee activities and matters and specific issues that were not completed during previous meetings, as time and availability of information permit.

Procedures for the conduct of and participation in ACNW meetings were published in the **Federal Register** on October 16, 2003 (68 FR 59643). In accordance with these procedures, oral or written statements may be presented by members of the public. Electronic recordings will be permitted only during those portions of the meeting that are open to the public. Persons desiring to make oral statements should notify Mr. Howard J. Larson, Special Assistant (Telephone 301/415-6805), between 7:30 a.m. and 4 p.m. e.t., as far in advance as practicable so that appropriate arrangements can be made to schedule the necessary time during the meeting for such statements. Use of still, motion picture, and television cameras during this meeting will be limited to selected portions of the meeting as determined by the ACNW Chairman. Information regarding the time to be set aside for taking pictures may be obtained by contacting the ACNW office prior to the meeting. In view of the possibility that the schedule for ACNW meetings may be adjusted by the Chairman as necessary to facilitate the conduct of the meeting, persons planning to attend should notify Mr. Howard J. Larson as to their particular needs.

Further information regarding topics to be discussed, whether the meeting has been canceled or rescheduled, the Chairman's ruling on requests for the opportunity to present oral statements and the time allotted therefore can be obtained by contacting Mr. Howard J. Larson.

ACNW meeting agenda, meeting transcripts, and letter reports are

available through the NRC Public Document Room at pdrc@nrc.gov, or by calling the PDR at 1-800-397-4209, or from the Publicly Available Records System (PARS) component of NRC's document system (ADAMS) which is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> or <http://www.nrc.gov/reading-rm/doc-collections/> (ACRS & ACNW Mtg schedules/agendas).

Videoteleconferencing service is available for observing open sessions of ACNW meetings. Those wishing to use this service for observing ACNW meetings should contact Mr. Theron Brown, ACNW Audiovisual Technician (301/415-8066), between 7:30 a.m. and 3:45 p.m. e.t., at least 10 days before the meeting to ensure the availability of this service. Individuals or organizations requesting this service will be responsible for telephone line charges and for providing the equipment and facilities that they use to establish the video teleconferencing link. The availability of video teleconferencing services is not guaranteed.

The ACNW meeting dates for Calendar Year 2004 are provided below.

ACNW meeting No.	Meeting dates
150	May 25-27, 2004.
151	June 22-24, 2004.
152	July 20-22, 2004.
153	August 2004—No Meeting.
153	September 21-23, 2004 (Las Vegas, Nevada).
154	October 19-21, 2004.
154	November 2004—No Meeting.
155	December 7-9, 2004.

Dated: March 26, 2004.

Andrew L. Bates,
Advisory Committee Management Officer.
[FR Doc. 04-7313 Filed 3-31-04; 8:45 am]
BILLING CODE 7590-01-P

NUCLEAR REGULATORY COMMISSION

Advisory Committee on Reactor Safeguards; Joint Meeting of the Subcommittees on Reliability and Probabilistic Risk Assessment and on Human Factors; Notice of Meeting

The ACRS Subcommittees on Reliability and Probabilistic Risk Assessment and on Human Factors will hold a joint meeting on April 22, 2004, Room T-2B1, 11545 Rockville Pike, Rockville, Maryland.

The entire meeting will be open to public attendance.

The agenda for the subject meeting shall be as follows:
Thursday, April 22, 2004—8:30 a.m. until 2:30 p.m.

The purpose of this meeting is to discuss the proposed staff guidance on Good Practices for Implementing Human Reliability Analysis (HRA) and development of data for Human Event Repository and Analyses (HERA). The Subcommittees will hear presentations by and hold discussions with representatives of the NRC staff, and other interested persons regarding this matter. The Subcommittee will gather information, analyze relevant issues and facts, and formulate proposed positions and actions, as appropriate, for deliberation by the full Committee.

Members of the public desiring to provide oral statements and/or written comments should notify the Designated Federal Official, Mr. Bhagwat P. Jain (telephone 301/415-7270), five days prior to the meeting, if possible, so that appropriate arrangements can be made. Electronic recordings will be permitted.

Further information regarding this meeting can be obtained by contacting the Designated Federal Official between 7:30 a.m. and 4:15 p.m. (e.t.). Persons planning to attend this meeting are urged to contact the above named individual at least two working days prior to the meeting to be advised of any potential changes to the agenda.

Dated: March 26, 2004.

Medhat M. El-Zeftawy,
Acting Associate Director for Technical Support, ACRS/ACNW.
[FR Doc. 04-7314 Filed 3-31-04; 8:45 am]
BILLING CODE 7590-01-P

POSTAL RATE COMMISSION

[Docket No. C2004-1; Order No. 1399]

Periodicals Rate Complaint

AGENCY: Postal Rate Commission.

ACTION: Notice and order on new complaint docket.

SUMMARY: This document announces the Commission's intention to hold hearings on a formal complaint filed by several major Periodicals mailers. The complaint concerns the alleged inconsistency of certain Periodicals rates with several provisions of the Postal Reorganization Act, given several developments affecting the viability of the longstanding rate structure. The Commission also announces several related procedural steps.

DATES: 1. Deadline for filing direct testimony: April 26, 2004.

2. Deadline for filing notices of intervention: May 21, 2004.

ADDRESSES: File all documents referred to in this order electronically via the Commission's Filing Online system at <http://www.prc.gov>.

FOR FURTHER INFORMATION CONTACT: Stephen L. Sharfman, 202-789-6818.

SUPPLEMENTARY INFORMATION: Summary. Five mailers who make extensive use of Outside County Periodicals rates have lodged a formal complaint with the Commission pursuant to section 3662 of the 1970 Postal Reorganization Act (the Act or the PRA).¹ They assert that the Complaint "concerns fundamental reform of the Periodicals rate structure" in the interest of achieving greater conformity with statutory rate making provisions. Complaint at 4. Complainants contend that the need for such reform is clear, as is the path that should be taken to achieve it. They seek hearings on their allegations regarding the inefficacy of the rate structure and other relief consistent with their claims, including the potential adoption of an alternative rate schedule.

The Commission accepts the Complaint under section 3662, over the Postal Service's objection, and announces its intention to hold hearings under section 3624 to determine whether the allegations in the Complaint are valid.² If the Commission finds that to be the case, it will issue a recommended decision on classification changes under section 3623. This decision will not include a rate recommendation.

I. The Time Warner Inc. et al. Complaint

The Complaint includes information addressing applicable Rule 83 provisions, such as identification of the Complainants, a statement of the grounds for the complaint and the

¹ Complaint of Time Warner Inc., Condé Nast Publications, a Division of Advance Magazine Publishers Inc., Newsweek, Inc., The Reader's Digest Association, Inc. and TV Guide Magazine Group, Inc. Concerning Periodicals Rates, January 12, 2004 (Complaint). These mailers are also collectively referred to in this order as Complainants.

² The American Postal Workers Union, AFL-CIO (APWU), in a February 13, 2004 letter, addressed to the Secretary of the Commission, expressed its opposition to the Complaint. Reasons include the Complaint's reliance on Docket No. R2001-1 rate case assumptions; concern that the proposal is a "radical departure" from the current methodology; the possibility of establishing a poor precedent; the absence of an allegation that current Periodicals rates are illegal; and the alleged inappropriateness of the Commission's interference in the discussion process. The rules of practice do not specifically authorize the APWU's filing at this point in the absence of a motion, but the Commission accepts it and has considered the points it raises in reaching its conclusions.



APPENDIX B

UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555-0001

April 6, 2004

REVISED
AGENDA
149th ACNW MEETING
APRIL 20-22, 2004

**TUESDAY, APRIL 20, 2004, CONFERENCE ROOM T-2B3, TWO WHITE FLINT NORTH,
ROCKVILLE, MARYLAND**

- 1) 1:00 - 1:10 P.M. Opening Remarks by the ACNW Chairman (Open) (BJG/JTL)
1 1) Opening Statement (BJG/JTL/HJL)
2 1) Items of Current Interest (BJG/HJL)
- 2) 1:10 - 2:40 P.M. Update on West Valley and Performance Assessment (PA) Plans
(Open) (MTR/RKM)
Briefing by and discussion with the NRC staff on the West Valley
Demonstration Project and its Performance Assessment plans.
- 2:40 - 2:55 P.M. ***BREAK***
- 3) 2:55 - 4:30 P.M. Risk-Informed Regulation for NMSS Activities (Open) (MTR/NMC)
Briefing by and discussions with representatives of the NRC NMSS
Risk Task Group regarding the current status of incorporating risk-
informed regulations in NMSS activities.
- 4:30 - 4:45 P.M. ***BREAK***
- 4) 4:45 - 6:00 P.M. Preparation of ACNW Reports (Open) (MTR/All)
The Committee will discuss potential reports on: MTR
4.1) West Valley Performance Assessment Plans (BJG/RKM)
(tentative) MTR
4.2) Risk-Informed Regulation for NMSS Activities (BJG/NMC) Y.
4.3) Biosphere Working Group (MTR/MPL)
4.4) Public Interactions during November 2003 Nevada Field Trip
(BJG/MPL) (tentative)
4.5) ACNW Annual Report on Waste Management Related
Research (RFW/MTR/RPS)

**WEDNESDAY, APRIL 21, 2004, CONFERENCE ROOM T-2B3, TWO WHITE FLINT
NORTH, ROCKVILLE, MARYLAND**

- 5) 8:30 - 8:40 A.M. Opening Statement (Open) (BJG/JTL)
The Chairman will make opening remarks regarding the
conduct of today's sessions.

- 6) 8:40 - ~~10:00~~ ^{9:50} A.M. EPA 40 CFR Chapter 1, Advance Notice of Proposed Rulemaking "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste" (Open) (MTR/HJL)
The Committee will hear an information briefing by a representative of the EPA on its proposed ANPR which discusses alternatives for the disposal of waste containing low concentrations of radioactive material.
- ~~10:00~~ ^{4:50} - 10:15 A.M. ***BREAK***
- 7) 10:15 - ~~12:15~~ ^{10:55} P.M. DWM Evaluation of DOE Bundling Approach (Open) (GMH/NMC)
Briefing by and discussions with representatives of the NRC staff on its evaluation of the DOE Bundling Approach. It is anticipated that the Biosphere bundle will be used as a representative sample.
- 12:15 - 2:00 P.M. ***LUNCH***
- 8) 2:00 - 3:00 P.M. DOE Schedule for Responses to Key Technical Issue Agreements (Open) (GMH/NMC)
Briefing by and discussion with a DOE representative on their amended timetable for responding to the 293 KTl agreements.
- 9) 3:00 - ~~4:00~~ ^{3:55} P.M. Update on Risk Insights (Open) (BJG/MPL)
Briefing by and discussion with the NRC staff on the recently published HLW Risk Insights Report.
- ~~4:00~~ ^{3:55 - 4:10} - 5:00 P.M. Scientific and Technical Priorities at Yucca Mountain (Open) (BJG/MPL)
The Committee will hear an information briefing by a representative of the Electric Power Research Institute on its December 2003 report regarding scientific and technical priorities at Yucca Mountain.
- ~~5:00 - 5:15~~ ^{4:10 -} P.M. ***BREAK***
- 11) 5:15 - 6:00 P.M. Preparation of ACNW Reports (Open) (MTR/All)
The Committee will continue its discussion of potential reports:
- 11.1) Risk Insights Report (BJG/MPL) (tentative)
 - 11.2) Report on DWM Evaluation of DOE Bundling Approach (GMH/NMC) (tentative)
 - 11.3) Risk-Informed Regulation for NMSS Activities (BJG/NMC)
 - 11.4) Public Interactions during November 2003 Nevada Field Trip (BJG/MPL) (tentative)
 - 11.5) Biosphere Working Group (MTR/MPL)
 - 11.6) West Valley Performance Assessment Plans (BJG/RKM) (tentative)
 - 11.7) ACNW Annual Report on Waste Management Related Research (RFW/MTR/RPS)
- ^{11:05 - 12:15}

**THURSDAY, APRIL 22, 2004, CONFERENCE ROOM T-2B3, TWO WHITE FLINT
NORTH, ROCKVILLE, MARYLAND**

- 12) 8:30 - 8:35 A.M. Opening Statement (Open) (BJG/JTL)
The Chairman will make opening remarks regarding the conduct of today's sessions.
- 13) ^{10:00} 8:35 - 12:00 Noon Preparation of ACNW Reports (Open) (BJG/All)
The Committee will continue its discussion of the proposed ACNW letter reports listed under Item 11. ^{Work Report}
^{to be prepared}
- 14) ^{10:00} ~~12:00~~ - 12:15 P.M. Miscellaneous (Open)
The Committee will discuss matters related to the conduct of Committee activities and matters and specific issues that were not completed during previous meetings, as time and availability of information permit

NOTE:

- Presentation time should not exceed 50 percent of the total time allocated for a specific item. The remaining 50 percent of the time is reserved for discussion.
- **Thirty-Five (35) hard copies and one (1) electronic copy of the presentation materials should be provided to the ACNW.**
- ACNW meeting schedules are subject to change. Presentations may be canceled or rescheduled to another day. If such a change would result in significant inconvenience or hardship, be sure to verify the schedule with Mr. Howard Larson at 301-415-6805 between 8:00 a.m. and 4:00 p.m. prior to the meeting.

APPENDIX C: MEETING ATTENDEES

149TH ACNW MEETING APRIL 20-22, 2004

ACNW STAFF

John Larkins
Neil Coleman
Michele Kelton
Howard Larson
Michael Lee
Richard Major
Richard Savio

ATTENDEES FROM THE NUCLEAR REGULATORY COMMISSION

APRIL 20, 2004

B. Leslie	NMSS
D. Esh	NMSS
C. Glenn	NMSS
B. Watson	NMSS
A. Bradford	NMSS
R. Johnson	NMSS
C. Craig	NMSS
J. Rubenstone	NMSS
M. Delligatti	NMSS
K. Stablein	NMSS
C. McKenney	NMSS
S. Bush-Goddard	NMSS
B. Eid	NMSS
T. Nicholson	RES
S. Flanders	NMSS
J. Philip	RES
P. Justus	NMSS
T. Bloomer	OEDO
J. Smith	NMSS
E. Chow	RES
A. Rubin	RES
A. Wong	NMSS
B. Ibrahim	NMSS
M. Waters	NMSS
T. King	RES
M. Nataraja	NMSS
C. Abrams	NMSS
C. Mattson	NMSS
S. Marata	NMSS

**APPENDIX C
149TH ACNW MEETING
APRIL 20-22, 2004**

ATTENDEES FROM THE NUCLEAR REGULATORY COMMISSION

APRIL 20, 2004 (CONT'D)

J. Schlueter	OCM
J. Thompson	NMSS
J. Shin	NMSS
D. Gillen	NMSS
M. Markley	NMSS
T. Brock	NMSS
K. Banovac	NMSS

APRIL 21 2004

A. Campbell	NMSS
J. Thompson	NMSS
P. Eng	NMSS
S. Salomon	STP
A. Persinko	NMSS
C. McKenney	NMSS
J. Rubenstone	NMSS
B. Palla	NRR
P. Justus	NMSS
C. Abrams	NMSS
B. Leslie	NMSS
G. Hatchett	NMSS
P. Reed	RES
K. Nolan	OGC
J. Trapp	NMSS
B. Ibrahim	NMSS
O. Tabatabai	NMSS
K. Stablein	NMSS
D. Rom	NMSS
M. Nataraja	NMSS
B. Jagannath	NMSS
S. Marata	NMSS
C. Grossman	NMSS
K. Compton	NMSS
S. Marshall	NRR
R. Codell	NMSS
T. Ahn	NMSS
C. Ryder	NMSS
T. Bloomer	OEDO

**APPENDIX C
149TH ACNW MEETING
APRIL 20-22, 2004**

ATTENDEES FROM THE NUCLEAR REGULATORY COMMISSION (CONT'D)

APRIL 21, 2004 (CONT'D)

M. Young	OGC
D. Brooks	NMSS
L. Harndan	NMSS
T. McCartin	NMSS
J. Schlueter	OCM
D. Galvin	NMSS

APRIL 22, 2004

A. Campbell	NMSS
B. Leslie	

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC

APRIL 20, 2004

C. Hanion	Department of Energy (DOE)
E. von Tiesenhausen	Clark County
N. Henderson	BSC
W. Bixby	DURATEK
J. Kessler	EPRI
J. Shaffner	MTS-East

via Telecom

D. Sullivan	DOE
T. Jackson	DOE
P. Bembia	NYSERDA
C. Gerwicz	NYSERDA
P. Piciulo	NYSERDA
D. Westcott	WVNSCO
J. Gerber	WVNSCO
K. Malone	WVNSCO
B. Steiner	WVNSCO
R. Mellor	WVNSCO

**APPENDIX C
149TH ACNW MEETING
APRIL 20-22, 2004**

ATTENDEES FROM OTHER AGENCIES AND GENERAL PUBLIC (CONT'D)

APRIL 21, 2004

C. Hanlon	DOE
N. Henderson	BSC
E. von Tiesenhausen	Clark County
J. Shaffner	MTS-East
L. Fairbent	ACR
D. Oakley	FSCC
A. Klinger	EPA
E. Zenick	EPA
C. Fitzpartick	Egan & Associates
D. Schultheis	EPA
R. McCullum	NEI
J. Kessler	EPRI
E. Supko	ERI
J. Starmer	PMC Environmental
K. Kamps	NIRS
F. Miraglia	Self
T. Gunter	DOE
D. Beckman	DOE
P. LaPlante	CNWRA

APRIL 22, 2004

N. Henderson	SAIC
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APPENDIX D: FUTURE AGENDA

The Committee approved the following topics for discussion during its 150th meeting, scheduled for May 25–27, 2004:

- Safeguards and Security Matters (Closed)
- Louisiana Energy Services Gas Centrifuge Uranium Enrichment Project
- Review of DOE Documents Supporting the Yucca Mountain License Application
- Decommissioning Program Changes
- Preparation for Meeting with the NRC Commissioners
- Treatment of Uncertainties in Hydrologic Models: Conceptual Model and Parameter Uncertainty
- Preparation of ACNW Reports on:
 - West Valley Performance Assessment Plans
 - Risk-Informed Regulation for NMSS Activities
 - Louisiana Energy Services Gas Centrifuge Uranium Enrichment Program
 - Decommissioning Program Changes
 - Review of DOE Documents Supporting Yucca Mountain License Application

APPENDIX E
LIST OF DOCUMENTS PROVIDED TO THE COMMITTEE

[Note: Some documents listed below may have been provided or prepared for Committee use only. These documents must be reviewed prior to release to the public.]

MEETING HANDOUTS

<u>AGENDA ITEM NO.</u>	<u>DOCUMENTS</u>
2	<u>Update on West Valley and Performance Assessment Plans</u> <ol style="list-style-type: none">1. General West Valley Site and Project Description and Current Status, presented by Chad Glenn, Decommissioning Directorate, DWMEP. NRC [Viewgraphs]2. Overview of Environmental Impact Statement for the Western New York Nuclear Services Center, presented by Anna Bradford, Environmental and Performance Assessment Directorate, DWMEP [Viewgraphs]3. General Approach for NRC Staff Review of the Performance Assessment of the West Valley Site, presented by David Esh, Environmental and Performance Assessment Directorate, DWMEP [Viewgraphs]
3	<u>Risk-Informed Regulation for NMSS Activities</u> <ol style="list-style-type: none">4. Risk-Informed Regulation for NMSS Activities, presented by Christiana Lui, NMSS, and Alan Rubin, RES [Viewgraphs]
6	<u>EPA, 40 CFR Chapter 1, Advance Notice of Proposed Rulemaking, "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste"</u> <ol style="list-style-type: none">5. Improving Radioactive Waste Management, An Overview of EPA's Low Activity Waste Effort, presented by Daniel Schulteis, EPA [Viewgraphs]
7	<u>DWM Evaluation of DOE Bundling Approach</u> <ol style="list-style-type: none">6. Issue Resolution, presented by Gregory Hatchett, Christopher McKenney, and John Trapp, Division of High Level Waste Repository Safety, NMSS [Viewgraphs]
8	<u>DOE Schedule for Responses to Key Technical Issue Agreements</u> <ol style="list-style-type: none">7. Key Technical Issue Status, presented by Timothy Gunter, Office of Repository Development, DOE [Viewgraphs]

APPENDIX E
149TH ACNW MEETING
APRIL 20-22, 2004

MEETING HANDOUTS (CONT'D)

<u>AGENDA</u>	<u>DOCUMENTS</u>
<u>ITEM NO.</u>	

9	<u>Update on Risk Insights</u>
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| 8. | Update on the Risk Insights Report, presented by Bret Leslie, Division of High-Level Waste Repository Safety, NMSS [Viewgraphs] |
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10	<u>Scientific and Technical Priorities at Yucca Mountain</u>
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|----|---|
| 9. | Scientific and Technical Priorities at Yucca Mountain — EPRI's Risk Prioritization Effort, presented by John Kessler, HLW and Spent Fuel Management Program, EPRI [Viewgraphs] |
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**APPENDIX E
149TH ACNW MEETING
APRIL 20-22, 2004**

MEETING NOTEBOOK CONTENTS

**TAB
NUMBER**

DOCUMENTS

Opening Statement by ACNW Chairman

1. Agenda, 149th ACNW Meeting, April 20–22, 2004, dated April 6, 2004
2. Color Code - 149th ACNW Meeting
3. Introductory Statement by ACNW Chairman, Tuesday, April 20, 2004, undated
4. Items of Interest for 149th ACNW Meeting, with attachment (organizational changes), undated
5. Introductory Statement by ACNW Chairman, Wednesday, April 21, 2004, undated
6. Introductory Statement by ACNW Chairman, Thursday, April 22, 2004, undated

2

Update on West Valley and Performance Assessment Plans

7. Table of Contents
8. Schedule
9. Status Report
10. Map and Pictures of Site
11. ACNW letter on West Valley Demonstration Project (WVDP) Decommission Criteria, November 1, 2000
12. Subpart E - Radiological Criteria License Termination
13. Regulators Communication Plan
14. NRC Implementation Plan for the Final Policy Statement on the Decommissioning Criteria for the WVDP

3

Risk-Informed Regulation for NMSS Activities

15. Status Report **[Official Use Only]**

APPENDIX E
149TH ACNW MEETING
APRIL 20-22, 2004

MEETING NOTEBOOK CONTENTS (CONT'D)

<u>TAB NUMBER</u>	<u>DOCUMENTS</u>
6	<p><u>EPA, 40 CFR Chapter 1, Advance Notice of Proposed Rulemaking, "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste: Request for Comment"</u></p> <p>16. Table of Contents 17. Status Report 18. Early Notice by EPA entitled, "Alternatives for Disposal of 'Low-Activity' Radioactive Waste" 19. Memo dated January 21, 2004, from H. J. Larson, ACNW, to ACNW Members, Subject: Environmental Protection Agency, 40 CFR, Chapter 1, Advance Notice of Proposed Rulemaking, "Approaches to an Integrated Framework for Management and Disposal of Low-Activity Radioactive Waste: Request for Comment," dated November 18, 2003</p>
7	<p><u>DWM Schedule for Responses to Key Technical Issue Agreements</u></p> <p>20. Status Report 21. Letter dated February 4, 2004, from Janet R. Schlueter, NMSIS, to Joseph D. Ziegler, DOE, Subject: Total System Performance Assessment and Integration (TSPAI) Agreements 3.33, 3.34, 3.35, 3.36, and Igneous Activity (IA) 2.15; Status: TSPAI 3.33, 3.34, 3.35, 3.36, and IA 2.15 Complete</p>
8	<p><u>DOE Schedule for Responses to Key Technical Issue Agreements</u></p> <p>22. Status Report</p>
9	<p><u>Update on Risk Insights Baseline Report</u></p> <p>23. Status Report 24. Attachment 3 to NRC Staff's June 5, 2002, Commission Memorandum on KTI Risk Significance 25. Attachment 2 to NRC Staff's June 5, 2002, Commission Memorandum on KTI Risk Significance</p>

APPENDIX E
149TH ACNW MEETING
APRIL 20-22, 2004

MEETING NOTEBOOK CONTENTS (CONT'D)

<u>TAB</u>	<u>DOCUMENTS</u>
<u>NUMBER</u>	
10	<u>Technical and Scientific Priorities Report</u>
	26. Status Report
14	<u>Miscellaneous</u>
	27. Activities of the Advisory Committee on Nuclear Waste and Perspectives on Selected Technical Issues, B. John Garrick, Chairman, ACNW, 4/7/04