On June 3, 2008, the U.S. Department of Energy (DOE) submitted an application to the NRC seeking authorization to construct a geologic repository operations area (GROA) at Yucca Mountain, Nevada (the “License Application” or LA). On February 19, 2009, DOE submitted to the NRC Revision 1 to the License Application (the “LA Update”). In the LA Update, DOE discussed the results of an update to the 1996 Probabilistic Volcanic Hazards Assessment (PVHA) for Yucca Mountain (known as the “PVHA-U”). The State of Nevada and Clark County each included contentions in their Petitions to Intervene challenging the 1996 PVHA (see e.g., NEV-SAFTY-150 through 159; NEV-SAFTY-167; CLK-SAFTY-03 through -011). On June 8 and 10,
2009, respectively, Nevada and Clark County filed a total of three new contentions challenging the PVHA-U (see NEV-SAFETY-204, NEV-SAFETY-205, and CLK-SAFETY-013). The CABs authorized Petitioners to file contentions challenging the LA Update in their March 13, 2009 Order.

For the reasons discussed below, DOE does not oppose the general admission of these three contentions. DOE does object to one argument within each of these three contentions, and requests that the CABs exclude these arguments if they admit the contentions.

I. NEV-SAFETY-204 - PROBABILISTIC VOLCANIC HAZARD ANALYSIS UPDATE EXPERT ELICITATION

This contention challenges the appropriateness of how DOE selected and prepared the expert elicitation panel that participated in the PVHA-U. DOE is mindful of the CABs’ decision in LBP-09-06 to admit a substantially similar contention, i.e., NEV-SAFETY-167, related to how DOE selected and prepared the expert elicitation panel that participated in the 1996 PVHA. Accordingly, DOE is not generally objecting to the admissibility of this contention.

However, DOE does object to one aspect of the contention which appears to be an implicit challenge to the site selection process. Specifically, Nevada highlights statements from one of the experts who participated in the PVHA-U, which suggest that

---

2 State Of Nevada’s New Contentions Based On DOE’s February 19, 2009 License Application Update (June 8, 2009) (the “Nevada Motion”); Clark County, Nevada’s New Contention Arising From The Department Of Energy’s February 19, 2009 License Application Update (June 10, 2009) (the “Clark County Motion”).

3 U.S. Dep’t of Energy, Order (Clarifying CAB Case Management Order #1)(March 13, 2009) at 2.

4 See Nevada Motion at 9-10.
the repository would be more appropriately placed 20 kms to the east of Yucca Mountain, because he believes there is a lower risk of future volcanic disruption in that area. The purpose of the PVHA-U, however, was to update the 1996 PVHA, and not to determine if a different site would be more suitable—solely from a volcanic hazard perspective and ignoring all other considerations—than Yucca Mountain. Any challenge to the siting decision is outside the scope of this proceeding. Therefore, any argument based on this statement challenging the siting decision is inadmissible under 10 C.F.R. § 2.309(f)(1)(iii).

DOE will demonstrate the appropriateness of its expert elicitation process for the PVHA and the PVHA-U during the merits phase of the licensing proceeding.

II. NEV-SAFETY-205 – PVHA-U FAILS TO ADEQUATELY CALCULATE PROBABILITY OF IGNEOUS EVENTS

CLK-SAFETY-013 – THE DOE’S [PVHA-U] IS INADEQUATE FOR CALCULATING PROBABILITY OF DISRUPTION OF A REPOSITORY AT YUCCA MOUNTAIN BY IGNEOUS EVENTS

These two contentions are essentially identical. They each reargue the bases from Nevada’s and Clark County’s original igneous contentions challenging the 1996 PVHA (i.e., NEV-SAFETY-150 to -159; CLK-SAFETY-003 to -011), but in the context of the PVHA-U, and as bases in a single, new contention rather than as separate contentions. For example, Nevada and Clark County argue that the DOE failed to properly consider in

\[\text{See id.}\]

[See Nevada Motion at 15 (“As a result, Nevada’s original contentions NEV-SAFETY 150 to NEV-SAFETY 159 apply to PVHA-U and License Application Update #1.”); Clark Motion at 3 (“[t]his contention applies the substance of CLK-SAFETY-003 to CLK-SAFETY-011 to the Amended License Application and its reliance on the PVHA-U”).]
the PVHA-U: alternative models for volcanism;\textsuperscript{7} the entire volcanic record going back 11 million years;\textsuperscript{8} “correct” locations and numbers of cones in the Greenwater Range;\textsuperscript{9} and modern, high-quality geophysical data.\textsuperscript{10} Nevada and Clark County submitted these arguments as separate contentions when they challenged the 1996 PVHA in their Petitions to Intervene.

The new Nevada contention challenging the PVHA-U is supported by the affidavit of Dr. Eugene Smith and Dr. Michael Thorne; the new Clark County contention challenging the PVHA-U is supported only by the affidavit of Dr. Eugene Smith. Again, DOE is mindful of the CABs’ decision in LBP-09-06 to admit the substantially similar contentions related to the 1996 PVHA. Accordingly, DOE does not generally object to the admissibility of these two contentions.

However, DOE notes that Nevada and Clark County acknowledge that Dr. Smith’s alternate volcanic model regarding the depth of magma production and a corresponding shorter return period for volcanic activity was specifically presented to, and considered by, the PVHA-U expert elicitation panel.\textsuperscript{11} By proffering this contention, therefore, Nevada and Clark County appear to be taking the position that each expert on the elicitation panel must not only consider, but fully adopt, Dr. Smith’s theories in order for the results of the PVHA-U to be appropriate. Such a position does not present

\textsuperscript{7} Nevada Motion at 15; Clark County Motion at 5.
\textsuperscript{8} Nevada Motion at 18; Clark County Motion at 7.
\textsuperscript{9} Nevada Motion at 20; Clark County Motion at 10.
\textsuperscript{10} Nevada Motion at 22; Clark County Motion at 11.
\textsuperscript{11} Nevada Motion at 16 (quoting the PVHA-U Report, LSN# DEN0011601965 at D-20); Clark County Motion at 5-6 (quoting the same).
sufficient information to show a genuine dispute of material fact or law, as required by 10 C.F.R. § 2.309(f)(1)(vi), because it is the antithesis of the expert elicitation process, which seeks to elicit and then weigh the panel members’ different views. Accordingly, this argument is not admissible.

DOE will demonstrate the appropriateness of its PVHA and the PVHA-U during the merits phase of the licensing proceeding.

Respectfully submitted,

Signed (electronically) by Alex S. Polonsky
Donald J. Silverman
Alex S. Polonsky
Counsel for the U.S. Department of Energy
Morgan, Lewis & Bockius LLP
1111 Pennsylvania Avenue, N.W.
Washington, DC 20004

Dated in Washington, DC this 2nd day of July 2009

James Bennett McRae
Martha S. Crosland
U.S. Department of Energy
Office of the General Counsel
1000 Independence Avenue, SW
Washington, DC 20585

12 DOE also notes, and Nevada acknowledges, that DOE invited Dr. Smith to personally present his theories to the PVHA-U expert elicitation panel, but that Dr. Smith declined and another expert presented Dr. Smith’s theory instead (see Nevada Motion at 16; Clark County Motion at 6), despite Dr. Smith having been a presenter during the 1996 PVHA expert elicitation process. See e.g., PVHA Report, Appendix C at C-7 of 19 (LSN# DEN000861156) (discussing the workshop on alternative hazard models, and stating: “Gene Smith gave the next presentation on spatially dependent volcanic hazard models. He described how his model incorporates zones of varying degrees of ‘risk’ based on the ages of the volcanic centers, the volcanic ‘chain length,’ and the observed/interpreted structural controls in the [Yucca Mountain Region]’’); id. at C-3 of 19 (“Eugene I. Smith [UNLV]) began the presentations with a description of data for the Crater Flats region and analog studies in the Basin and Range conducted by UNLV”’); PVHA Report at 1-9 of 10 (Table 1-3, Technical Specialists Participating In PVHA Workshops and Field Trips) (identifying Eugene I. Smith as a technical specialist participating in the PVHA field trips for Crater Flat/Lathrop Wells/Sleeping Butte”).

13 See, e.g., Duke Energy Corp. (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-17, 56 NRC 1, 12–13 (2002) (dismissing one basis of admitted severe accident mitigation alternatives contention).
CERTIFICATE OF SERVICE

I hereby certify that copies of the “U.S. DEPARTMENT OF ENERGY’S ANSWER TO STATE OF NEVADA’S AND CLARK COUNTY’S LATE-FILED CONTENTIONS RELATED TO THE FEBRUARY 19, 2009 LICENSE APPLICATION UPDATE” have been served on the following persons this 2nd day of July 2009 through the Nuclear Regulatory Commission’s Electronic Information Exchange.

U.S. Nuclear Regulatory Commission  U.S. Nuclear Regulatory Commission
Atomic Safety and Licensing Board Panel  Office of the Secretary of the Commission
Mail Stop-T-3 F23  Mail Stop O-16C1
Washington, D.C. 20555-0001  Washington, D.C. 20555-0001

Administrative Judges
E. Roy Hawkens, Chief Admin. Judge
E-mail: erh@nrc.gov
Lawrence McDade
E-mail: lgm1@nrc.gov
Matthew Rotman
E-mail: matthew.rotman@nrc.gov
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001
Tom Ryan
E-mail: Tom.Ryan@nrc.gov
Andrea L. Silvia, Esq.
E-mail: alc1@nrc.gov
Andrew Welkie
E-mail: axw5@nrc.gov
Jack Whetstine
E-mail: jgw@nrc.gov
Mitzi A. Young, Esq.
E-mail: may@nrc.gov
Marian L. Zobler
E-mail: mlz@nrc.gov

U.S. Department of Energy
Office of General Counsel
1000 Independence Avenue S.W.
Washington, D.C. 20585
Martha S. Crosland, Esq.
E-mail: Martha.Crosland@hq.doe.gov
Nicholas DiNunzio, Esq.
E-mail: Nicholas.DiNunzio@hq.doe.gov
Christina Pak, Esq.
E-mail: Christina.Pak@hq.doe.gov
Ben McRae, Esq.
E-mail: Ben.McRae@hq.doe.gov
Cyrus Nezhad, Esq.
E-mail: Cyrus.Nezhad@hq.doe.gov

Bureau of Government Affairs
Nevada Attorney General
Marta Adams, Chief Deputy AG
100 North Carson Street
Carson City, NV 89701
E-mail: madams@ag.nv.gov

Egan, Fitzpatrick, Malsch & Lawrence, PLLC
Counsel for the State of Nevada
1750 K Street, N.W., Suite 350
Washington, D.C. 20006
Charles J. Fitzpatrick, Esq.
E-mail: cfitzpatrick@nuclearlawyer.com
Laurie Borski, Paralegal
E-mail: lborski@nuclearlawyer.com
Martin G. Malsch, Esq.
E-mail: mmalsch@nuclearlawyer.com
Susan Montesi
E-mail: smontesi@nuclearlawyer.com
John W. Lawrence
E-mail: jlawrence@nuclearlawyer.com

Yucca Mountain Project Licensing Group
DOE/BSC
Regulatory programs
1180 North Town Center Dr.
Las Vegas, NV 89144
Stephen Cereghino
E-mail: stephen_cereghino@ym.gov
Edward Borella
E-mail: edward_borella@ym.gov
Danny Howard
E-mail: danny_howard@ym.gov
Jeffrey Kriner
E-mail: jeffrey_kriner@ym.gov

CACI International
Daniel Maerten
E-mail: Daniel.Maerten@cai.com
Esmeralda County Repository Oversight Program, Yucca Mountain Project  
P.O. Box 490  
Goldfield, NV 89013  
Edwin Mueller  
E-mail: muellered@msn.com

Lincoln County, Nevada, Nuclear Oversight Program  
Connie Simkins, Coordinator  
E-mail: jcciac@co.lincoln.nv.us 
Counsel for Lincoln County, Nevada  
Bret Whipple, Esq.  
E-mail: bretwhipple@lcturbonet.com 
Annie Bailey  
E-mail: baileys@lcturbonet.com

Clark County (NV) Nuclear Waste Division  
500 S. Grand Central Parkway  
Las Vegas, NV 89155  
Phil Klevorick  
E-mail: klevorick@co.clark.nv.us

Clark County, Nevada  
500 S. Grand Central Parkway  
Las Vegas, NV 89106  
Elizabeth A. Vibert, Deputy District Attorney  
E-mail: VibertE@co.clark.nv.us

Inyo County, California  
710 Autumn Leaves Circle  
Bishop, California 93514  
Gregory L. James, Esq.  
Attorney for the County of Inyo  
E-mail: gljames@earthlink.net 
Alisa Lembke  
E-mail: alembke@inyocounty.us

Talisman International, LLC  
1000 Potomac St., NW, Suite 200  
Washington, DC 20007  
For U.S. Department of Energy  
Patricia Larimore, Senior Paralegal  
E-mail: plarimore@talisman-intl.com

United States Navy  
Naval Sea Systems Command Nuclear Propulsion Program  
1333 Isaac Hull Avenue, S.E.  
Washington Navy Yard, Building 197  
Washington, DC 20376  
Frank Putzu, Esq.  
E-mail: frank.putzu@navy.mil

Hunton & Williams  
Counsel for Department of Energy  
Riverfront Plaza, East Tower  
951 East Byrd Street  
Richmond, VA 23219  
Donald P. Irwin  
E-mail: dirwin@hunton.com 
Michael R. Shebelskie  
E-mail: mshebelskie@hunton.com 
Kelly L. Faglioni  
E-mail: kfaglioni@hunton.com 
Stephanie Meharg  
E-mail: smeharg@hunton.com 
Belinda A. Wright  
E-mail: bwright@hunton.com

Nuclear Waste Project Office  
1761 East College Parkway, Suite 118  
Carson City, NV 89706  
Steve Frishman, Tech. Policy Coordinator  
E-mail: steve.frishman@gmail.com 
Susan Lynch  
E-mail: slynch1761@gmail.com
White Pine County
White Pine County Dist. Attorney’s Office
801 Clark Street, Suite 3
Ely, NV 89301
Richard Sears, District Attorney
E-mail: rwsears@wpcda.org

White Pine County Nuclear Waste Project Office
959 Campton Street
Ely, NV 89301
Mike Simon
E-mail: wpnucast1@mwpower.net

Intertech Services Corporation
P.O. Box 2008
Carson City, NV 89702
For White Pine County
Mike Baughman
E-mail: bigboff@aol.com

Eureka County, Nevada
Harmon, Curran, Spielberg & Eisenberg
1726 M Street N.W., Suite 600
Washington, D.C. 20036
Diane Curran
E-mail: dcurran@harmoncurran.com
Matthew Fraser
E-mail: mfraser@harmoncurran.com

Eureka County, Nevada
Office of the District Attorney
Theodore Beutel
E-mail: tbeutel@eurekanv.org

Eureka County Public Works
Ronald Damele
E-mail: rdamele@eurekanv.org

Nuclear Waste Advisory for Eureka Co.
1983 Maison Way
Carson City, NV 89703
Abigail Johnson
E-mail: eurekanrc@gmail.com

Michael Berger
E-mail: mberger@bsglaw.net
Robert S. Hanna
E-mail: rshanna@bsglaw.net

Lorraine Carter
E-mail: lcarter@captionreporters.com

Linda Mathias
E-mail: yuccainfo@mineralcountynv.org

Alan Robbins
E-mail: arobbins@jsslaw.com
Bryce Loveland
E-mail: bloveland@jsslaw.com
Debra Roby
E-mail: droby@jsslaw.com
Elene Belete
E-mail: ebelete@jsslaw.com

(electronically signed by) Alex S. Polonsky
Alex S. Polonsky