UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	January 15, 2009
U.S. Department of Energy	)	
	)	
(License Application for Geologic Repository at Yucca Mountain)	)	Docket No. 63-001

ANSWER OF THE U.S. DEPARTMENT OF ENERGY TO NYE COUNTY, NEVADA PETITION TO INTERVENE AND CONTENTIONS

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TABLE OF CONTENTS

Page

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I. INTRODUCTION

In accordance with 10 C.F.R. § 2.309 and 10 C.F.R. Part 63, and the Advisory Pre-Application Presiding Officer (PAPO) Board Order of June 17, 2008, the U.S. Department of Energy (DOE or the Department) hereby files its Answer to "Nye County, Nevada (Nye County) Petition to Intervene and Contentions" (Petition), filed on December 19, 2008.[1] The Petition responds to the U.S. Nuclear Regulatory Commission's (NRC or Commission) Notice of Hearing and Opportunity to Petition for Leave to Intervene on an Application for Authority To Construct a Geologic Repository at a Geologic Repository Operations Area at Yucca Mountain, published in the *Federal Register* on October 22, 2008 (73 Fed. Reg. 63,029) (Hearing Notice). The Hearing Notice concerns DOE's License Application (Application or LA) for authorization

[1] DOE is filing this Answer in advance of the deadline set by the Commission in its Hearing Notice. DOE recognizes, however, that Petitioners have the full time allotted by the Hearing Notice to file their replies. DOE's early filing does not affect the deadlines set by the Commission.

to construct a geologic repository at Yucca Mountain, Nevada for the disposal of spent nuclear fuel (SNF) and high-level radioactive waste (HLW).

To be admitted as a party to this proceeding, under 10 C.F.R. § 2.309, Nye County must: (1) be in substantial and timely compliance with the Licensing Support Network (LSN) requirements imposed by 10 C.F.R. § 2.1003 at the time of its request for participation in the proceeding as provided in 10 C.F.R. § 2.1012(b)(1), and be in compliance with all orders of the Pre-License Application Presiding Officer (PAPO) regarding electronic availability of documents; (2) have legal standing to intervene in the proceeding pursuant to 10 C.F.R. § 2.309; and (3) submit at least one admissible contention in accordance with 10 C.F.R. § 2.309(f)(1). In addition to the NRC's contention admissibility requirements in 10 C.F.R. § 2.309(f), environmental contentions must also meet the requirements of 10 C.F.R. § 51.109 and 10 C.F.R. § 2.326.

As discussed below, DOE has no reason to believe that Nye County is not in substantial and timely compliance with its LSN obligations at this time, and does not object to Nye County's legal standing as the local government in which the geologic repository operations area will be located. However, DOE does not believe that Nye County has proffered any admissible contentions.[2]

II. COMPLIANCE WITH LSN REQUIREMENTS

DOE has no reason to believe that Nye County is not in substantial and timely compliance with its LSN obligations at this time, and therefore this Answer does not address the detailed requirements for LSN compliance.

[2] DOE's Answer to Nevada's Petition contains a "Background" section summarizing the Yucca Mountain site, proposed repository operation, the applicable NRC regulatory framework, and the NRC Staff's technical review and the hearing process. DOE has omitted that section from this Answer in the interest of brevity.

III. LEGAL STANDING

Because the Commission has stated that it will "permit intervention by the State and local governmental body (county [Nye], municipality or other subdivision) in which the geologic repository operations area is located" as long as "the contention requirements in 10 CFR 2.309(f) are satisfied with respect to at least one contention" (Hearing Notice, 73 Fed. Reg. at 63,031), DOE has no objection to Nye County's legal standing. Contention admissibility is discussed below.

IV. ADMISSIBILITY OF CONTENTIONS

A. Applicable Legal Standards and Relevant NRC Precedent

1. Petitioner Must Submit at Least One Admissible Contention to be Admitted as a Party

To be admitted as a party in the Yucca Mountain licensing proceeding, a petitioner must proffer at least one admissible contention. *See* 10 C.F.R. §§ 2.309(a), 2.309 (d)(2)(iii). The NRC will deny a petition to intervene from a petitioner who has complied with the LSN requirements and has demonstrated standing to intervene, but who has not proffered at least one admissible contention. *See generally Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), CLI-01-17, 54 NRC 3, 5 (2001). As the Commission has observed, "[i]t is the responsibility of the Petitioner to provide the necessary information to satisfy the basis requirement for the admission of its contentions and demonstrate that a genuine dispute exists within the scope of this proceeding." *Balt. Gas & Elec. Co.* (Calvert Cliffs Nuclear Power Plant, Units 1 and 2), CLI-98-14, 48 NRC 39, 41 (1998). "A contention's proponent, not the licensing board, is responsible for formulating the contention and providing the necessary information to satisfy the basis requirement for the admission of contentions." *Statement of Policy on Conduct of Adjudicatory Proceedings*, CLI-98-12, 48 NRC 18, 22 (1998). Finally, "government entities

seeking to litigate their own contentions are held to the same pleading rules as everyone else." *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-05-24, 62 NRC 551, 568 (2005).

2. Petitioner in this Proceeding Has a Heightened Obligation to Proffer Well Pled and Adequately Supported Contentions Given the Availability of the LSN

As the Commission has noted, this proceeding involves a number of "unique facts and circumstances" – one of those being the development of the LSN as a substitute for traditional document discovery. In developing this system, the NRC sought both to streamline the discovery process *and* to facilitate submittal of well-pled contentions:

> Another efficiency the [LSN] provides is reducing the effort consumed in carrying out document discovery and allowing more effort to be spent in case preparation. Because access to these documents is provided *before* the application is docketed, each party can focus on formulating meaningful contentions before the licensing hearing begins. *There should be no excuse for poorly crafted contentions, and the licensing board can reduce hearing delays by readily rejecting or otherwise disposing of unfocused or unsupported contentions.* Likewise, the [LSN] rule places tighter restrictions on amending or adding contentions late in the hearing processes because the [LSN] affords the parties an opportunity to raise and resolve issues earlier than what traditionally has been possible.

SECY-95-153, Memorandum from James M. Taylor, Executive Director of Operations, to the Commissioners, "Licensing Support System Senior Management Team Recommendations on Direction of the Licensing Support System," June 14, 1995, *available at* LEGACY ADAMS Accession No. 9506280652 (emphasis added).

In issuing the final LSN rule nearly a decade later, the Commission noted that "the history of the LSN and its predecessor . . . makes it apparent it was the Commission's expectation that the LSN, among other things, would provide potential participants with the opportunity to frame focused and meaningful contentions" and avoid potential discovery-related

delays. Final Rule, LSN, Submissions to the Electronic Docket, 69 Fed. Reg. 32,836, 32,843 (June 14, 2004). The Commission added that "[t]hese objectives are still operational." *Id*. In fact, in a recent adjudicatory order related to this proceeding, the Commission reaffirmed these objectives:

> The use of the LSN was intended, among other things, to "enabl[e] the comprehensive and early review of the millions of pages of relevant licensing material by the potential parties to the proceeding, so as to permit the earlier submission of better focused contentions resulting in a substantial saving of time during the proceeding."

U.S. Dep't of Energy (High-Level Waste Repository: Pre-Application Matters), CLI-08-12, 67 NRC __ (slip op. at 8) (June 17, 2008).

And in fact, DOE's production of documentary material on the LSN fulfilled those objectives. DOE first made documentary material available on the LSN in 2004, when it publicly released approximately 1.3 million documents. Transcript of Record at 540, *U.S. Dep't of Energy* (High-Level Waste Repository: Pre-Application Matters), ASLBP No. 04-8239-01-PAPO (July 12, 2005). DOE made another 2.1 million documents publicly available on the LSN in April, 2007—more than a year before it submitted the LA. Policy Issue Information Memorandum, SECY-07-0130, August 7, 2007, *available at* ADAMS No. ML071930440 at 5. DOE regularly added documents to the LSN each month thereafter, and in October, 2007, DOE certified that all its extant documentary material was available on the LSN. The Department of Energy submitted it Certification of Compliance on October 19, 2007. DOE has since then updated its LSN production each month with new documentary material that it has generated, received, or identified. *See e.g.*, The Department of Energy's Certification of Licensing Support Network Supplementation (Nov. 1, 2007); *see also* Revised Second Case Management Order,

ASLBP No. 04-829-01-PAPO (July 6, 2007) at 21 (requiring monthly supplemental production on LSN of documentary material created or discovered after party's initial LSN certification).

Altogether, DOE has made more than 3.5 million documents available on the LSN. *U.S. Dep't of Energy* (High-Level Waste Repository: Pre-Application Matters), LBP-08-01, 67 NRC __ (slip op. at 11) (January 4, 2008) (stating that "it is not disputed that DOE has made available a massive amount of documentary material—3.5 million documents, amounting to over 30 million pages, including redacted versions of some privileged documents and privilege logs for hundreds of others."). That production includes documents that DOE cites and relies upon in the LA. It includes extensive underlying calculations, data, and other material on which those documents are based. Further, as required by regulation, it also includes documents with information that does not support the information DOE intends to cite or rely upon in the licensing proceeding. 10 C.F.R. § 2.1001 (definition of "documentary material").

DOE's extensive production substantially heightens Nye County's ability—*and its corresponding obligation*—to proffer focused and adequately supported contentions in this proceeding. As the Commission observed in rejecting a challenge to DOE's initial LSN certification, "potential parties had access to millions of DOE documents upon which to begin formulating meaningful contentions" during the period following that certification, as contemplated by the Commission's regulations. *U.S. Dep't of Energy*, CLI-08-12, 67 NRC __ (slip op. at 9). Indeed, because of DOE's early production of documentary material on the LSN starting 4 years before LA submittal, every potential party has had an even greater opportunity than the regulations contemplate to use those materials to develop contentions. Based on the above circumstances, Nye County must be held to a particularly heightened burden to proffer well-pled and adequately supported contentions.

3. Proffered Contentions Must Meet All of the Contention Admissibility Requirements of 10 C.F.R. § 2.309(f)(1) as Well as the Requirements of the Applicable June 20, 2008 and September 29, 2008 Case Management Orders

Section 2.309(f)(1) requires a petitioner to "set forth with particularity the contentions sought to be raised," and to satisfy the following six criteria: (1) provide a specific statement of the legal or factual issue sought to be raised; (2) provide a brief explanation of the basis for the contention; (3) demonstrate that the issue raised is within the scope of the proceeding; (4) demonstrate that the issue raised is material to the findings the NRC must make to support the licensing action that is the subject of the proceeding; (5) provide a concise statement of the alleged facts or expert opinions, including references to specific sources and documents that support the petitioner's position and upon which the petitioner intends to rely; and (6) provide sufficient information to show that a genuine dispute exists with regard to a material issue of law or fact. *See* 10 C.F.R. § 2.309(f)(1)(i)-(vi). *A failure to comply with any one of the six admissibility criteria is grounds for rejecting a proffered contention*. *See* Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. 2182, 2221 (Jan. 14, 2004) (emphasis added); *see also Private Fuel Storage L.L.C.*, (Independent Spent Fuel Storage Installation) CLI-99-10, 49 NRC 318, 325 (1999).

The purpose of these six criteria is to "focus litigation on concrete issues and result in a clearer and more focused record for decision." Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. at 2202. The current contention admissibility standards are "strict by design," *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-01-24, 54 NRC 349, 358 (2001), *recons. denied*, CLI-02-1, 55 NRC 1 (2002), and were intended to "raise the threshold for the admission of contentions." Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. 33,168 (Aug. 11, 1989); *see also Duke Energy Corp.* (Oconee Nuclear Station, Units 1, 2, and 3), CLI-99-11, 49 NRC

328, 334 (1999). As explained above, the availability of the LSN further raises this threshold for the admission of a contention in this proceeding. In revising its Part 2 rules in 2004, the Commission reiterated that the standards are "necessary to ensure that hearings cover only genuine and pertinent issues of concern and that the issues are framed and supported concisely enough at the outset to ensure that the proceedings are effective and focused on real, concrete issues." Final Rule, Changes to Adjudicatory Process, 69 Fed. Reg. at 2189-90 (stating that the NRC "should not have to expend resources to support the hearing process unless there is an issue that is appropriate for, and susceptible to, resolution in an NRC hearing"); *id*. at 2202.

Strict application of these contention admissibility criteria in this proceeding is critically important. The vast number of contentions submitted and the "rigorous schedule" imposed by the NWPA and Appendix D to Part 2 present unprecedented challenges to the conduct of a timely, effective, and focused adjudication. Recognizing these challenges, the Advisory PAPO Board, with the Commission's express approval, issued its Case Management Order "to help both potential parties and licensing boards address the admissibility of contentions in any HLW proceeding effectively and efficiently." *U.S. Dep't of Energy* (High-Level Waste Repository: Pre-Application Matters, Advisory PAPO Board), LBP-08-10, 67 NRC __ (slip op. at 3) (June 20, 2008) (Case Management Order).[3] That Order imposes numerous format requirements for proffered contentions. Failure to adhere to these format requirements may provide an additional basis for rejection of proffered contentions should a potential party significantly and in bad faith ignore these requirements. *Id.* at 3, 5-9.

The six contention admissibility criteria set forth in § 2.309(f)(1), and the related pleading requirements contained in the Case Management Order, are discussed further below.

[3] A second case management order was issued. *See U.S. Dep't of Energy* (Regarding Contention Formatting and Tables of Contents), LBP-08-10, 67 NRC __ (September 29, 2008).

a. Petitioner Must Specifically State the Issue of Law or Fact to Be Raised

Section 2.309(f)(1)(i), the first admissibility criterion, requires that a petitioner "provide a specific statement of the issue of law or fact to be raised or controverted," by "articulat[ing] at the outset the specific issues [it] wish[es] to litigate as a prerequisite to gaining formal admission as [a party]." *Duke Energy Corp*., CLI-99-11, 49 NRC at 338. To be admissible, a contention "must explain, with specificity, particular safety or legal reasons requiring rejection of the contested [application]." *Dominion Nuclear Conn., Inc.*, CLI-01-24, 54 NRC at 359-60. Section 2.309(f)(1)(i) "bar[s] contentions where petitioners have only 'what amounts to generalized suspicions, hoping to substantiate them later.'" *Duke Energy Corp.* (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-03-17, 58 NRC 419, 424 (2003) (quoting *Duke Energy Corp*., CLI-99-11, 49 NRC at 337-39). Elaborating further on this requirement, the June 20, 2008, Case Management Order for this proceeding requires "narrow, *single-issue* contentions" that are "sufficiently specific as to define the relevant issues for eventual rulings on the merits, and not require" extensive narrowing or clarification by the parties or boards. *U.S. Dep't of Energy*, LBP-08-10, 67 NRC __ (slip op. at 6) (emphasis added).

b. Petitioner Must Briefly Explain the Basis for the Contention

Section 2.309(f)(1)(ii) requires that a petitioner provide "a brief explanation of the basis for the contention." *See also* Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,170. This includes "sufficient foundation" to "warrant further exploration." *Public Serv. Co. of N.H.* (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 428 (1990) (footnote omitted). A petitioner's explanation serves to define the scope of a contention, as "[t]he reach of a contention necessarily hinges upon its terms coupled with its stated bases." *Public Serv. Co. of N.H.* (Seabrook Station, Units 1 and 2),

ALAB-899, 28 NRC 93, 97 (1988), *petitions denied in part, granted in part, Mass. v. U.S. Nuclear Regulatory Comm'n*, 924 F.2d 311 (D.C. Cir. 1991), *cert. denied*, 502 U.S. 899 (1991). The Board, however, must determine the admissibility of the contention itself, not the admissibility of individual "bases." *Duke Energy Corp*. (McGuire Nuclear Station, Units 1 and 2; Catawba Nuclear Station, Units 1 and 2), CLI-02-28, 56 NRC 373, 379 n.45 (2002).

c. Petitioner Must Demonstrate that the Issue Raised in the Contention is Within the Scope of the Proceeding

Section 2.309(f)(1)(iii) requires that a petitioner demonstrate "that the issue raised in the contention is within the scope of the proceeding." The scope of the proceeding is defined by the Commission's Notice of Hearing and the NRC regulations governing review and approval of the Application. *See, e.g.*, *Duke Power Co.* (Catawba Nuclear Station, Units 1 and 2), ALAB-825, 22 NRC 785, 790-91 (1985). Contentions are necessarily limited to issues that are germane to the specific application pending before the Board. *Yankee Atomic Elec. Co.* (Yankee Nuclear Power Station), CLI-98-21, 48 NRC 185, 204 n.7 (1998). Any contention that falls outside the specified scope of this proceeding – as discussed further below – must be rejected. *See, e.g.*, *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 and 3), CLI-04-36, 60 NRC 631, 639 (2004).

A contention that challenges an NRC rule is outside the scope of this proceeding because, absent a waiver, "no rule or regulation of the Commission . . . is subject to attack . . . in any adjudicatory proceeding . . . ." 10 C.F.R. § 2.335(a). This includes contentions that advocate stricter requirements than agency rules impose or that otherwise seek to litigate a generic determination established by a Commission rulemaking. *See Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001), *aff'd on other grounds*, CLI-01-17, 54 NRC 3 (2001). For instance, any direct or indirect challenge to the

current EPA standard or NRC implementing rule is a collateral attack and is outside the scope of the proceeding. Moreover, Nevada challenged the EPA rule in federal court and thus this proceeding is the wrong forum to once again raise such a challenge.

In addition, any contention that collaterally attacks applicable statutory requirements or the basic structure of the NRC regulatory process must also be rejected by the Board as outside the scope of the proceeding. *Carolina Power & Light* (Shearon Harris Nuclear Power Plant Units 1), LBP-07-11, 65 NRC 41, 57-58 (2007) (citing *Philadelphia Elec. Co.* (Peach Bottom Atomic Power Station, Units 2 and 3), ALAB-216, 8 AEC 13, 20 (1974)). Accordingly, a contention that simply states the petitioner's views about what the regulatory policy should be does not present a litigable issue. *See Philadelphia Elec. Co.*, ALAB-216, 8 AEC at 20-21, 21 n.33. Similarly, challenges to the adequacy of the NRC Staff's safety review process, including the contents of its SER, are outside the scope of this proceeding. "The NRC has not, and will not, litigate claims about the adequacy of the Staff's safety review in licensing adjudications." *AmerGen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC __ (slip op. at 13-14) (Nov. 6, 2008).

Furthermore, asserting that generalized "uncertainties" exist in postclosure models or data, without showing in any way, how or why those uncertainties call into question the conclusions reached by DOE, or findings the NRC must make in its review of the LA, is not a sufficient basis for an admissible contention. To merely assert the existence of such uncertainties, without specifying their impact on a finding NRC must make in its issuance of the construction authorization, amounts to an improper challenge to Part 63, which explicitly recognizes that such uncertainties exist and cannot be eliminated. The Commission, in the Statements of Consideration accompanying Part 63, expressly rejected requests made by several

commenters to define an acceptable level of uncertainty in Part 63, finding it "neither practical nor appropriate." Final Rule, Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, NV, 66 Fed. Reg. 55,732, 55,747-748 (Nov. 2, 2001). The Commission "decided to adopt EPA's preferred criterion of 'reasonable expectation' for purposes of judging compliance with the postclosure performance objectives [since] . . . a standard of 'reasonable expectation' allows it the necessary flexibility to account for the inherently greater uncertainties in making long-term projections of a repository's performance." *Id*. at 55,740. This flexibility encompasses consideration of the use, as appropriate, of cautious but reasonable approaches consistent with present knowledge in lieu of bounding or more conservative approaches. *See, e.g.*, 10 C.F.R. § 63.305(c).

The following examples from 10 C.F.R. § 63.101 are illustrative of the reasonable expectation standard:

- "Proof that the geologic repository will conform with the objectives for postclosure performance is not to be had in the ordinary sense of the word because of the uncertainties inherent in the understanding of the evolution…."
- "[W]hat is required is reasonable expectation, making allowance for the …uncertainties involved, that the outcome will conform with the objectives for postclosure…."
- "[D]emonstration of compliance must take uncertainties and gaps in knowledge into account so that the Commission can make the specified finding…."

10 C.F.R. § 63.304 describes the characteristics of reasonable expectation by stating that reasonable expectation:

- Requires less than absolute proof because absolute proof is impossible to attain for disposal due to the uncertainty of projecting long-term performance;
- Accounts for the inherently greater uncertainties in making long-term projections of the performance of the Yucca Mountain disposal system;
- Does not exclude important parameters from assessments and analyses simply because they are difficult to precisely quantify to a high degree of confidence; and

- Focuses performance assessments and analyses on the full range of defensible and reasonable parameter distributions rather than only upon extreme physical situations and parameter values.

In addition, 10 C.F.R. § 63.305(c) makes clear that, in the context of reasonable expectation, conservative means the use of cautious but reasonable assumptions consistent with present knowledge.

Given the obligation of the Commission under section 801(b) of the Energy Policy Act of 1992 (EPACT) to modify its technical requirements and criteria under section 121(b) of the NWPA to be consistent with the radiological protection standards promulgated by the Environmental Protection Agency (EPA) under section 801(a) of EPACT, the proper application of the reasonable expectation standard must take into account the statements by EPA in promulgating the standards required by EPACT.[4] These statements make clear that, while reasonable assurance and reasonable expectation are similar concepts, the evaluation of the Yucca Mountain repository requires a different level and type of technical proof than required for reactors and other situations licensed by NRC in the past.[5] Reasonable expectation recognizes that, in the context of the Yucca Mountain repository, "unequivocal numerical proof of compliance is neither necessary nor likely to be obtained,"[6] and while some "sources of uncertainty can be addressed, or at least accounted for while in other [data or model] areas our knowledge may be too limited to even characterize the uncertainty, much less explicitly account

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4 *See* Final Rule, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 66 Fed. Reg. 32,074, 32,101-03 (June 13, 2001) (section III.B.2.c titled "What Level of Expectation Will Meet Our Standards?"); *see also* Proposed Rule, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 70 Fed. Reg. 49,014, 49,020-21 (Aug. 22, 2005) (section I.A.1.c titled "What is "Reasonable Expectation?"); Final Rule, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 73 Fed. Reg. 61,256, 61,271-73 (Oct. 15, 2008) (section III.A.4 titled "How Did We Consider Uncertainty and Reasonable Expectation?").

5 *See* Final Rule, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 66 Fed. Reg. at 32,101.

6 Proposed Rule, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 70 Fed. Reg. at 49,021.

for it."[7] Identifying postclosure uncertainties, without specifying their impact on whether the reasonable expectation standard is met, does not provide an adequate basis to admit a contention.

Therefore, in formulating its contentions, the initial burden is on the petitioner to explain the implications of alleged uncertainties and show why, if true, they exceed the range of acceptable (and unavoidable) uncertainties clearly reflected in the regulations, particularly the reasonable expectation standard set forth in 10 C.F.R. § 63.101. Any contention attempting to shift that burden to the applicant is an improper challenge to 10 C.F.R. § 2.309. *See Entergy Nuclear Generation Co. and Entergy Nuclear Operations, Inc.* (Pilgrim Power Station), LBP-06-23, 64 NRC 257, 358-59 (2006). DOE's responses to specific contentions identify where these pleading requirements have been violated.

d. Petitioner Must Demonstrate That Each Contention Raises a Material Issue

Section 2.309(f)(1)(iv) requires that a petitioner "[d]emonstrate that the issue raised in the contention is *material* to the *findings the NRC must make to support the action* that is involved in the proceeding." Emphasis added. As the Commission has observed, "[t]he dispute at issue is 'material' if its resolution would 'make a difference in the outcome of the licensing proceeding.'" *Duke Energy Corp*., CLI-99-11, 49 NRC at 333-34; *see also* Rules of Practice for Domestic Licensing Proceedings–Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,172. Thus, each contention must be one that, if proven, would entitle the petitioner to relief. *Yankee Atomic Elec. Co.* (Yankee Power Station), CLI-96-7, 43 NRC 235, 244 (1996). The Case Management Order states that this criterion "requires citation to a statute or regulation that,

[7] Final Rule, Public Health and Environmental Radiation Protection Standards for Yucca Mountain, NV, 73 Fed. Reg. at 61,271, n.22.

explicitly or implicitly, has not been satisfied by reason of the issue raised in the contention." *U.S. Dep't of Energy*, LBP-08-10, 67 NRC __ (slip op. at 7).

The "findings the NRC must make to support" the issuance of a construction authorization for a geologic repository are set forth in 10 C.F.R. § 63.31. To authorize construction of the repository, the NRC must determine that:

- there is reasonable assurance that the types and amounts of radioactive materials described in the application can be received and possessed in a geologic repository operations area of the design proposed without unreasonable risk to the health and safety of the public;
- there is reasonable expectation that the materials can be disposed of without unreasonable risk to the health and safety of the public; and
- there is reasonable assurance that the activities proposed in the application will not be inimical to the common defense and security.

In short, the NRC must determine the validity of DOE's conclusions concerning the ability of the repository design to limit exposure to radioactivity, both during the construction and operation phase of the repository (*i.e.*, preclosure phase) and during the phase after the repository has been filled, closed, and sealed (*i.e.*, postclosure phase).

In making these determinations, the NRC must evaluate DOE's compliance with the applicable provisions of Part 63, including, among other things, whether DOE has described the proposed geologic repository as specified in § 63.21, and whether the site and design comply with the Part 63 performance objectives and requirements. Proposed safety contentions that fail to raise issues that are material to these findings are inadmissible. For example, Part 63 permits DOE to use probabilistic analyses to calculate potential postclosure radiation doses, 10 C.F.R. § 63.102(j), and to report those doses as *mean* doses. *See* 10 C.F.R. § 63.303. Therefore, contentions that either independently or cumulatively, fail to demonstrate an increase in the mean dose *above regulatory limits* are immaterial and inadmissible because they would not "make a

difference in the outcome of the licensing proceeding." *Duke Energy Corp*., CLI-99-11, 49 NRC at 333-34.

e. Petitioner Must Demonstrate that Each Contention is Supported by Adequate Factual Information and/or Expert Opinion

Section 2.309(f)(1)(v) requires a petitioner to present the factual information or expert opinions necessary to support its contention adequately, and failure to do so requires the Board to reject the contention. *See also Yankee Atomic Elec. Co.*, CLI-96-7, 43 NRC at 262 (in referencing 10 C.F.R. § 2.714, the predecessor to 10 C.F.R. § 2.309, the Commission stated that petitioners must present "claims rooted in fact, documents, or expert opinions"). A petitioner is "obligated to put forward and support contentions when seeking intervention, based on the application and information available" by examining the application and publicly available information. *Consumers Energy Co*. (Palisades Nuclear Power Plant) CLI-07-18, 65 NRC 399, 414 n.46 (2007).

As explained above, the LSN heightens a petitioner's already "ironclad" obligation to furnish adequate support because "early access to . . . documents in an electronically searchable form [has] allow[ed] for a thorough and comprehensive technical review of the license application by all parties and potential parties to the HLW licensing proceeding." Final Rule, LSN, Submissions to the Electronic Docket, 69 Fed. Reg. at 32,837. Thus, where a petitioner neglects to provide the requisite support for its contentions, the Board may not—and in this case absolutely should not—make assumptions of fact that favor the petitioner or supply information that is lacking. *See Ariz. Pub. Serv. Co.* (Palo Verde Nuclear Generating Station, Unit Nos. 1, 2, and 3), CLI-91-12, 34 NRC 149, 155 (1991).

Vague references to documents are not permissible. A petitioner must identify specific portions of the documents on which it relies. *See Pub. Serv. Co. of N.H.* (Seabrook Station,

Units 1 and 2), CLI-89-03, 29 NRC 234, 240-41 (1989). Moreover, the mere incorporation of massive documents by reference is unacceptable. *See Tenn. Valley Auth.* (Browns Ferry Nuclear Plant, Units 1 and 2), LBP-76-10, 3 NRC 209, 216 (1976). Consistent with these requirements, the Case Management Order directs petitioners to ensure that documentary references "be as specific as reasonably possible." *U.S. Dep't of Energy*, LBP-08-10, 67 NRC __ (slip op. at 7). Additionally, it requires that supporting documents (with the exception of readily available legal authorities, copyright-restricted material, and LSN documentary material), be electronically attached to the petition. In citing LSN documents, petitioners must include the LSN accession number as well as the title, date, and relevant pages of the document.

A petitioner also must explain the significance of any factual information upon which it relies. *See Fansteel, Inc.* (Muskogee, Oklahoma Site), CLI-03-13, 58 NRC 195, 204-05 (2003). With respect to factual information or expert opinion proffered in support of a contention, "the Board is not to accept uncritically the assertion that a document or other factual information or an expert opinion supplies the basis for a contention." *Private Fuel Storage* (Independent Spent Fuel Storage Installation), LBP-98-7, 47 NRC 142, 181 (1998), *aff'd on other grounds*, CLI-98-13, 48 NRC 26 (1998). Any supporting material provided by a petitioner, including those portions thereof not relied upon, is subject to Board scrutiny, "both for what it does and does not show." *See Yankee Atomic Elec. Co.*, LBP-96-2, 43 NRC 61, 90 (1996), *rev'd in part on other grounds and remanded*, CLI-96-7, 43 NRC 235 (1996). The Board should examine documents to confirm that they support the proposed contention(s). *See Vt. Yankee Nuclear Power Corp.* (Vermont Yankee Nuclear Power Station), ALAB-919, 30 NRC 29, 48 (1989), *vacated in part on other grounds and remanded*, CLI-90-04, 31 NRC 333 (1990). A petitioner's imprecise

reading of a document cannot be the basis for a litigable contention. *See Ga. Inst. of Tech.* (Georgia Tech Research Reactor), LBP-95-6, 41 NRC 281, 300 (1995).

Furthermore, "an expert opinion that merely states a conclusion (*e.g.*, the application is 'deficient,' 'inadequate,' or 'wrong') without providing *a reasoned basis or explanation* for that conclusion is inadequate because it deprives the Board of the ability to make the necessary, reflective assessment of the opinion" alleged to provide a basis for the contention. *See USEC, Inc.* (American Centrifuge Plant), CLI-06-10, 63 NRC 451, 472 (2006) (emphasis added) (quoting *Private Fuel Storage*, LBP-98-7, 47 NRC at 181). Conclusory statements cannot provide "sufficient" support for a contention, simply because they are proffered by an alleged expert. *See USEC, Inc.*, CLI-06-10, 63 NRC at 472. In summary, a contention "will be ruled inadmissible if the petitioner 'has offered no tangible information, no experts, no substantive affidavits', but instead only 'bare assertions and speculation.'" *Fansteel, Inc.*, CLI-03-13, 58 NRC at 203 (quoting *Gen. Pub. Utils. Nuclear, Inc.* (Oyster Creek Nuclear Generating Station), CLI-00-06, 51 NRC 193, 208 (2000)).

f. Petitioner Must Demonstrate that the Contention Raises a Genuine Dispute With Respect to a Material Issue of Law or Fact

With regard to the final requirement, that a petitioner "provide sufficient information to show . . . a genuine dispute . . . with the applicant . . . on a material issue of law or fact," 10 C.F.R. § 2.309(f)(1)(vi), the Commission has stated that the petitioner must "read the pertinent portions of the license application, . . . state the applicant's position and the petitioner's opposing view," and explain why it disagrees with the applicant. Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,170; *Dominion Nuclear Conn., Inc.*, CLI-01-24, 54 NRC at 358.

In claiming that the Application fails to address adequately a material issue, a petitioner must "explain why the application is deficient." Rules of Practice for Domestic Licensing Proceedings—Procedural Changes in the Hearing Process, 54 Fed. Reg. at 33,170; *Ariz. Pub. Serv. Co.*, CLI-91-12, 34 NRC at 156. An allegation that some aspect of a license application is "inadequate" or unacceptable does not give rise to a genuine dispute unless it is supported by facts and a reasoned statement of why the application is unacceptable in some material respect. *See Fla. Power & Light Co.* (Turkey Point Plant, Unit Nos. 3 and 4), LBP-90-16, 31 NRC 509, 521, 521 n.12 (1990). Put another way, a contention that does not *directly controvert a position taken by the applicant in the application* is subject to dismissal. *See Tex. Utils. Elec. Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992) (emphasis added). For example, if a petitioner submits a contention of omission, but the allegedly missing information is, in fact, contained in the license application, then the contention does not raise a genuine dispute.

4. Environmental Contentions Addressing DOE's Final Environmental Impact Statement and its Supplements Must Also Meet the Requirements of 10 C.F.R. § 51.109 and 10 C.F.R. § 2.326

In its Hearing Notice, the Commission reaffirmed that proposed environmental contentions are subject to substantially heightened admissibility standards.[8] In addition to the

[8] In February of 2002, DOE issued the *Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada* (DOE/EIS-0250F, February 2002) (2002 FEIS). On April 8, 2004, DOE announced in a Record of Decision (2004 ROD) the selection of the mostly rail alternative analyzed in the 2002 FEIS for transporting spent nuclear fuel and high-level radioactive waste nationally and within Nevada. 69 Fed. Reg. 18,557. DOE also announced in the 2004 ROD that it had selected the Caliente rail corridor in which to examine possible alignments for construction of a rail line in Nevada. In July 2008, DOE issued the *Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada* (DOE/EIS-0250F-S1) (Repository SEIS), the *Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada – Nevada Rail Transportation Corridor* (DOE/EIS-0250F-S2) (Nevada Rail Corridor SEIS), and the *Final Environmental Impact Statement for a Rail Alignment for the Construction and Operation of a Railroad in Nevada to a Geologic Repository at Yucca Mountain, Nye County, Nevada* (DOE/EIS-0369) (Rail Alignment EIS). On

NRC's contention admissibility requirements in 10 C.F.R. § 2.309(f), environmental contentions must also meet the requirements of 10 C.F.R. § 51.109 and the requirements of 10 C.F.R. § 2.326. These two sections impose the following admissibility standards on environmental contentions:

1. Contentions must allege that it is not practicable to adopt the DOE EIS for one of two reasons:

   "(1)(i) The action proposed to be taken by the Commission differs from the action proposed in the license application submitted by [DOE]; and (ii) the difference may significantly affect the quality of the human environment;[9] or

   (2) Significant and substantial new information or new considerations render such [EIS] inadequate." 10 C.F.R. § 51.109(c).

2. The contention must address a "significant" environmental issue. 10 C.F.R. § 2.326(a)(2).

3. The contention must demonstrate that, if true, "a materially different result would be or would have been likely . . . ." 10 C.F.R. § 2.326(a)(3).

4. The contention must be supported by affidavits that set forth the factual and/or technical basis for the movant's claims and must be given by competent individuals with knowledge of the facts or by experts in the appropriate disciplines. 10 C.F.R. § 2.326(b).[10]

These additional admissibility standards are discussed in greater detail below.

a. The 10 C.F.R. § 51.109 Criteria

Given the *sui generis* nature of this proceeding, neither the Commission nor its boards have applied § 51.109 in the context of an adjudication. Nevertheless, existing Commission

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October 10, 2008, DOE issued a Record of Decision (2008 ROD) announcing its decision to construct and operate a railroad along a rail alignment within the Caliente corridor. 73 Fed. Reg. 60,247.

[9] Because the action proposed to be taken by the NRC does not differ from the action proposed in DOE's application, this first factor has no relevance to this proceeding and will not be discussed further.

[10] In addition, evidence in the affidavits must meet NRC admissibility standards and each criteria in 10 C.F.R. § 2.326 must be addressed separately.

decisions and federal caselaw under NEPA provide guidance with respect to how the criteria under § 51.109 should be applied in this proceeding.

First, the Commission has made clear that its adjudicatory boards should not "automatically assume" that a proffered environmental contention—though cognizable as a "new consideration" under the D.C. Circuit's decision in *NEI*—contains "significant and substantial information" that, if true, would render the DOE EIS and its supplements "inadequate" under NEPA. Letter from Bradley W. Jones, Esq., Assistant Gen. Counsel, U.S. Nuclear Regulatory Comm'n, to Martin G. Malsch, Esq., "Request By Nevada For Reconsideration and Clarification of Notice of Denial," March 20, 2008, *available at* ADAMS Accession No. ML080810175 (Jones Letter). This approach is consistent with well-established NEPA principles, as applied by the federal courts, under which reviewing courts have held that the identification of a deficiency in an EIS does not necessarily render that EIS "inadequate." For example, the D.C. Circuit so held in denying Nevada's challenge to the transportation-related portions of DOE's 2002 FEIS. *Nevada v. Dep't of Energy*, 457 F.3d 78, 93 (D.C. Cir. 2006) (rejecting alleged inadequacies in the FEIS relating to environmental impacts on cultural resources, floodplains and archaeological and historic impacts and stating "we do not think that the inadequacies to which Nevada points make the FEIS inadequate" or render DOE's selection of the Caliente Corridor "arbitrary and capricious."). The D.C. Circuit in this prior proceeding emphasized that courts "will not 'flyspeck' an agency's environmental analysis, looking for any deficiency no matter how minor." *Id.* (citing *Fuel Safe Wash. v. FERC*, 389 F.3d 1313, 1323 (10th Cir. 2004); *Half Moon Bay Fishermans' Mktg. Ass'n v. Carlucci*, 857 F.2d 505, 508 (9th Cir. 1988)).

The Commission, for its part, has indicated that this same standard applies in its licensing proceedings. As the Commission explained:

> NEPA's twin goals are to inform the agency and the public about the environmental effects of a project. At NRC licensing hearings, petitioners may raise contentions seeking correction of *significant inaccuracies and omissions* in the [applicant's environmental report ("ER") or agency's EIS]. Our boards do not sit to 'flyspeck" environmental documents or to add details or nuances. If the ER (or EIS) on its face "comes to grips with all important considerations" nothing more need be done.[11]

Sys. Energy Res., Inc. (Early Site Permit for Grand Gulf ESP Site), CLI-05-4, 61 NRC 10, 13 (2005) (quoting *Hydro Res., Inc*. (P.O. Box 15910, Rio Rancho, NM 87174), CLI-01-4, 53 NRC 31, 71 (2001)) (emphasis added). A petitioner's claim must "suggest *significant environmental oversights* that warrant further inquiry at an evidentiary hearing." *Exelon Generation Co., LLC* (Early Site Permit for Clinton ESP Site), CLI-05-29, 62 NRC 801, 811 (2005) (emphasis added). Thus, as the D.C. Circuit recognized in *Nuclear Energy Inst., Inc. v. Envtl. Protection Agency*, there must be significant "substantive defects" in the FEIS. 373 F.3d 1251, 1314 (D.C. Cir. 2004) (*NEI*).

Under NEPA, an EIS is not inadequate merely because a reviewing court or other adjudicatory tribunal might have reached a different conclusion. As the U.S. Supreme Court has explained, "[n]either the statute nor its legislative history contemplates that a court should substitute its judgment for that of the agency as to the environmental consequences of its actions." *Kleppe v. Sierra Club*, 427 U.S. 390, 410 n.21 (1976). The NRC has indicated that it would adhere to this same tenet in deciding whether to adopt DOE's EIS. Specifically, in promulgating 10 C.F.R. § 51.109, the NRC stated that "the adoption of the [DOE] statement does

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[11] *See also Duke Energy Corp.*, McGuire Nuclear Station, Units land 2; Catawba Nuclear Station, Unites 1 & 2 CLI-03-17, 58 NRC 419, 431 (2003) ("NRC adjudicatory hearings are not EIS editing sessions. Our busy boards do not sit to parse and fine-tune EISs."). The Commission's admonition against the "flyspecking" and "fine-tuning" of EISs is particularly apt here, given that DOE has "primary responsibility" for consideration of environmental matters under the NWPA. Final Rule, NEPA Review Procedures for Geologic Repositories for High-Level Waste, 54 Fed. Reg. 27,864, 27,865 (July 3, 1989) (codified at 10 C.F.R. § 51.109). In contrast, under the NWPA, the NRC's NEPA-related responsibility in this proceeding is limited to determining whether adoption of DOE's EIS, as supplemented, is "practicable." *Id.*

not necessarily mean that NRC would independently have arrived at the same conclusions on matters of fact or policy." Proposed Rule, NEPA Review Procedures for Geologic Repositories for High-Level Waste, 53 Fed. Reg. 16,131, 16,142 (May 5, 1988). Thus, in accordance with 10 C.F.R. § 51.109(d), insofar as the presiding officer determines that NRC adoption of DOE's EIS is "practicable" under § 51.109(d), "such adoption shall be deemed to satisfy all responsibilities of the Commission under NEPA and no further consideration under NEPA or this subpart shall be required."

In this proceeding, DOE submits that boards should apply § 51.109 consistent with the above referenced well established NEPA caselaw and decisions of the Commission.

b. The 10 C.F.R. § 2.326 Criteria and Procedures

Section 51.109(a)(2) directs the presiding officer, "to the extent possible," to use the "criteria and procedures that are followed in ruling on motions to reopen under § 2.326." In its Hearing Notice, the Commission reiterated that a presiding officer should, to the extent possible, apply the reopening procedures and standards set forth in § 2.326. *See* Hearing Notice, 73 Fed. Reg. at 63,031.

By explicitly directing presiding officers to use the criteria and procedures contained in § 2.326, the Commission reaffirmed its longstanding intent to avoid, in accordance with the NWPA, "the wide-ranging independent examination of environmental concerns that is customary in NRC licensing proceedings." Proposed Rule, NEPA Review Procedures for Geologic Repositories for High-Level Waste, 53 Fed. Reg. at 16,136; *see also* Final Rule, NEPA Review Procedures for Geologic Repositories for High Level Waste, 54 Fed. Reg. 27,864, 27,865 (July 3, 1989) ("[W]e believe it to be a fair reading of Congressional intent that NRC can adequately exercise its NEPA decisionmaking responsibility with respect to a repository by relying upon DOE's environmental impact statement"). Specifically, the Commission has noted

that the test for reopening a closed record—the same test to be applied by the Board in ruling on the admissibility of environmental contentions in this proceeding—is a "stiff test" that imposes a "strict" burden. *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-06-3, 63 NRC 19, 22, 25 (2006); *see also Fla. Power & Light Co.* (Turkey Plant Point, Units 3 and 4), LBP-87-21, 25 NRC 958, 963-64 (1987) (stating that "a party seeking to reopen the record has a 'heavy burden' to bear") (quoting *Ka. Gas and Elec. Co.* (Wolf Creek Station, Unit No. 1), ALAB-4627 NRC 320, 338 (1978)). Parties seeking to reopen a closed record must raise a "significant" safety or environmental issue and demonstrate that "a materially different result [is] 'likely' as a result of the new evidence." *Private Fuel Storage*, CLI-06-3, 63 NRC at 25. In applying this test, the Commission has further noted that "[n]ew information is not enough, *ipso facto*, to reopen a closed hearing record," and that "the information must be significant and plausible enough to require reasonable minds to inquire further." *Private Fuel Storage* (Independent Spent Fuel Storage Installation), CLI-05-12, 61 NRC 345, 350 (2005).

The Commission has further noted that the supporting material required by § 2.326(b) "must be set forth with a degree of particularity *in excess of* the basis and specificity requirements contained in 10 C.F.R. [§ 2.309] for admissible contentions. Such supporting information must be more than mere allegations; it must be tantamount to evidence." *Long Island Lighting Co.* (Seabrook Nuclear Power Station, Unit 1), CLI-89-1, 29 NRC 89, 93 (1989) (quoting *Pacific Gas and Elec. Co.* (Diablo Canyon Nuclear Power Plant, Units 1 and 2), ALAB-775, 19 NRC 1361, 1366 (1984), *aff'd sub nom. San Luis Obispo Mothers for Peace v. U.S. Nuclear Regulatory Comm'n*, 751 F.2d 1287 (D.C. Cir. 1984), *aff'd on reh'g en banc*, 789 F.2d 26 (1986), *cert. denied*, 479 U.S. 923 (1986)). An intervenor's mere "belief" is insufficient to satisfy § 2.326(b). *Fla. Power & Light Co.*, LBP-87-21, 25 NRC at 963.

In short, "the Commission expects its adjudicatory boards to enforce the [§ 2.326] requirements rigorously—*i.e.*, to reject out-of-hand [] motions that do not meet those requirements within their four corners." *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 and 2), ALAB-915, 29 NRC 427, 432 (1989) (citing *La. Power & Light Co.* (Waterford Steam Electric, Unit 3), CLI-86-1, 23 NRC 1 (1986); *Cleveland Elec. Illuminating Co.* (Perry Nuclear Power Plant, Units 1 and 2), CLI-86-7, 23 NRC 233 (1986), *aff'd sub nom. Ohio v. U.S. Nuclear Regulatory Comm'n*, 814 F.2d 258 (6th Cir. 1987)).

In the *Private Fuel Storage* decision (CLI-06-3) discussed above, the Commission applied the § 2.326 standard in ruling on a motion to reopen the record (after the Commission had rendered its final adjudicatory decision and authorized license issuance) to litigate a proposed environmental contention. The Commission's ruling is illustrative and underscores the heavy burden imposed by § 2.326.[12] For example, the Commission emphasized "a high threshold" for reopening a record as established by "longstanding NRC regulations and precedent." *Private Fuel Storage*, CLI-06-3, 63 NRC at 22. *See id.* at 25 (stating that the NRC does "not lightly reopen [its] adjudicatory proceedings"). The Commission found that the intervenor had failed to meet substantive and evidentiary requirements of § 2.326, stating that "we cannot say on the current record that a materially different result in our licensing proceeding is so 'likely' that we must reopen the adjudicatory proceeding for additional hearings and findings." *Id.* at 26-27. Consequently, the Commission rejected the intervenor's request that the entire project be placed on hold.

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[12] In recently denying a motion to reopen the record, the Commission emphasized the "deliberately heavy" burden associated with § 2.326. *See AmerGen Energy Co., LLC* (License Renewal for Oyster Creek Nuclear Generating Station), CLI-08-28, 68 NRC __ (slip op. at 13-14) (Nov. 6, 2008) ("The burden of satisfying the reopening requirements is a heavy one, and proponents of a reopening motion bear the burden of meeting all of [these] requirements.") (internal quotation marks and citations omitted).

In the context of the Yucca Mountain proceeding, the requirement that the petitioner must demonstrate that a materially different outcome would likely result means that the contention, if true, would severely impact the EIS such that it could not be adopted unless formally supplemented by NRC or DOE.

In summary, given the considerably heightened admissibility standards applicable here, DOE submits that in this proceeding a presiding officer should admit *environmental* contentions in this proceeding only under very limited circumstances. Under 10 C.F.R. §§ 51.109(c) and 2.326, an environmental contention must present *evidence* concerning a "significant" environmental issue. Under those same provisions, that information must be so "substantial" as to demonstrate that the alleged inadequacy in the DOE EISs is "likely" to dictate a "materially different result." As the Commission explained in *Private Fuel Storage*, this means that any "new information" proffered by a petitioner must present a "seriously different picture of the environmental landscape," such that it would "be likely to change the outcome of the proceeding or affect the licensing decision in a material way." CLI-06-3, 63 NRC at 19, 28.

B. Co-Sponsorship of Contentions and Incorporation by Reference

Pursuant to 10 C.F.R. § 2.309(f)(3), contentions may be sponsored by two or more petitioners. Specifically, 10 C.F.R. § 2.309(f)(3) states:

> If two or more requestors/petitioners seek to co-sponsor a contention, the requestors/petitioners shall jointly designate a representative who shall have the authority to act for the requestors/petitioners with respect to that contention. If a requestor/petitioner seeks to adopt the contention of another sponsoring requestor/petitioner, the requestor/petitioner who seeks to adopt the contention must either agree that the sponsoring requestor/petitioner shall act as the representative with respect to that contention, or jointly designate with the sponsoring requestor/petitioner a representative who shall have the authority to act for the requestors/petitioners with respect to that contention.

While the regulation acknowledges that two or more petitioners may co-sponsor a contention, it does not address whether a petitioner who seeks co-sponsorship may be granted party status merely by incorporating contentions only by reference to another party's pleading.

The Commission, however, has addressed this issue. In a license transfer proceeding involving Indian Point, Units 1 and 2, two intervenors (Town of Cortland and Citizens Awareness Network) sought to adopt each other's contentions. *See Consol. Edison Co.* (Indian Point, Units 1 and 2), CLI-01-19, 54 NRC 109, 131-33 (2001). The Commission held that where both petitioners have independently met the requirements to participate in the proceeding, the Board may provisionally allow petitioners to adopt each other's issues early in the proceeding. *Id*. at 132. If the primary sponsor of a contention withdraws from the proceeding, then the remaining petitioner must demonstrate that it has the "independent ability to litigate [the] issue." *Id*. If the petitioner cannot make such a showing, then the issue must be dismissed prior to hearing. *Id.*

Incorporation by reference should be denied to parties who merely establish standing and then attempt to incorporate issues of other petitioners. *Id*. at 133. Incorporation by reference also would be improper in cases where a petitioner has not independently established compliance with requirements for admission in its own pleadings by submitting at least one admissible contention of its own. *Id*. As the Commission indicated "[o]ur contention-pleading rules are designed, in part, 'to ensure that full adjudicatory hearings are triggered only by those able to proffer at least some minimal factual and legal foundation in support of their contentions.'" *Id*. (citing *Duke Energy Corp.*, CLI-99-11, 49 NRC at 334).

C. DOE's Answer Regarding the Admissibility of Petitioner's Proposed Contentions

1. NYE-SAFETY-1

Failure to include activities in the performance confirmation program sufficient to assess the adequacy of information used to evaluate the capability of the upper natural barrier (UNB) following repository closure.

RESPONSE

This contention asserts that DOE has failed "to include activities in the performance confirmation program sufficient to assess the adequacy of information used to evaluate the capability of the upper natural barrier (UNB) following repository closure."

a. Statement of Issue of Law or Fact to be Controverted

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

b. Brief Explanation of Basis.

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

c. Whether the Issue is Within the Scope of the Proceeding

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

d. Whether the Issue is Material to the Findings that the NRC Must Make

In its attempt to demonstrate that this contention is material to the findings that the NRC must make in this proceeding, Nye County identifies various regulations. Nye County concludes this general description of various sections of 10 C.F.R. Part 63 with the mere assertion that "[t]he applicant has failed to adequately address the requirement that the performance

confirmation program must provide data that indicate, where practicable, whether: *'Natural and engineered systems and components required for repository operation, and that are designed or assumed to operate as barriers after permanent closure, are functioning as intended and anticipated.' [10 CFR 63.131(a)(2)]"* 10 C.F.R. § 2.309(f)(1)(iv) requires a showing by a petitioner that "the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding . . .," not merely a recitation of the relevant regulations. In this regard, a contention is material only if its resolution would make a difference in the outcome of the proceeding. *See Duke Energy Corp.*, (Oconee Nuclear Station, Units 1, 2 and 3) CLI-99-11, 49 NRC 328, 333-34 (1999).

While the Advisory PAPO Board directed the potential parties to provide a "citation to a statute or regulation that, explicitly or implicitly, has not been satisfied" because specific citations are "preferable" to general citations (June 20, 2008 CMO, at 7), this direction cannot be read to dispense with the well-recognized requirement that resolution of the contention would make a difference in the outcome of the proceeding, particularly because the CMO focused exclusively on "format" and "procedural matters." CMO at 3.

In particular, because the issue presented in this contention concerns postclosure performance, Nye County must demonstrate that the resolution of the issue would prevent the NRC from finding that there is a "reasonable expectation" that the radioactive materials can be disposed of without unreasonable risk to the health and safety of the public. *See* 10 C.F.R. § 63.31(a)(2). However, as discussed in Section IV.A.3 *supra*, and in 10 C.F.R. § 63.101 (a)(2), "because of the uncertainties inherent in the understanding of the evolution of the geologic setting, biosphere, and engineered barrier system," DOE is *not* required to provide complete assurance that each postclosure performance objective specified at § 63.113 will be

met. Therefore, Nye County must demonstrate that there is no reasonable expectation that the overall objective could be met. This contention makes no such showing.

The method the DOE used in addressing the performance confirmation program is consistent with what the NRC contemplates in 10 C.F.R. § 63.304, which recognizes that determining that there is a "reasonable expectation": (1) requires less than absolute proof, (2) accounts for the inherently greater uncertainties in making long-term projections of disposal system performance, (3) does not exclude important parameters from assessments and analyses due to the difficulty in quantifying with a high degree of confidence, and (4) focuses on performance assessments and analyses on the full range of defensible and reasonable parameter distributions rather than only upon extreme physical situations and parameter values.

In making its "reasonable expectation" determination, the NRC must evaluate DOE's compliance with the applicable provisions of Part 63, including, among other things, whether DOE has described the proposed geologic repository as specified in § 63.21, and whether the site and design comply with the Part 63 performance objectives and requirements. Proposed safety contentions that fail to raise issues that are material to these findings are inadmissible. For example, Part 63 permits DOE to use probabilistic analyses to calculate potential postclosure radiation doses, 10 C.F.R. § 63.102(j), and to report those doses as *mean* doses. *See* 10 C.F.R. § 63.303. Therefore, contentions that either independently or cumulatively, fail to demonstrate an increase in the mean dose *above regulatory limits* are immaterial and inadmissible because they would not "make a difference in the outcome of the licensing proceeding." *Duke Energy Corp*., CLI-99-11, 49 NRC at 333-34.

Nye County asserts that DOE has not included certain data in its performance confirmation program. Petition at 8. However, it fails to demonstrate that this issue is material to any finding the NRC must make to authorize construction of the repository. Specifically, it fails to demonstrate that resolution of the contention would make a difference in the proceeding. Petition at 8. As discussed below in f, DOE conducted a completeness evaluation of the performance confirmation program that considered features, events and processes, importance to barrier capability, and core parameter characteristics. Uncertain parameters for each model were ranked by level of importance based on sensitivity analysis of total expected dose to the reasonably maximally exposed individual (RMEI). Qualitative evaluations of model importance to dose were based on TSPA results for total expected dose to the RMEI and knowledge of the processes contributing to total expected dose. *See* Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at A-3[a]. This evaluation then concluded that no additional activities needed to be added to the performance confirmation program. Because of Nye County's failure to address the dose effects of the claimed omissions in the performance confirmation program, the contention is inadmissible.

Accordingly, this contention fails to raise an issue that is material to the findings that the NRC must make in this proceeding, and, thus, must be dismissed.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

As a threshold matter, it warrants mention that Nye County fails to explicitly address this criterion, contrary to 10 CFR § 2.309(f)(1) and the Case Management Order. This alone is grounds for dismissal of the contention, as discussed in Section IV.A.3 above.

Even putting aside this pleading defect, the contention fails to raise a genuine dispute on a material issue of law or fact. The contention criticizes DOE for having insufficient activities in the performance confirmation program "to assess the adequacy of the basis for modeling the features and processes assessed in evaluating the capability of the UNB." Petition at 8. Nye County provides a list of alleged "gaps" in the performance confirmation program for infiltration, UZ flow, and seepage and goes on to propose that DOE be required to "include additional site specific activities and data gathering to address the gaps identified, or provide adequate basis for their omission." *Id*. at 17-18. For the reasons discussed below, these arguments do not raise a genuine dispute of material fact or law and must be dismissed.

First, Nye County's primary basis for its assertion that additional activities should be included in the performance confirmation program is apparently DOE's identification of the processes that significantly affect the capability of the UNB to provide its barrier function, as tabulated in SAR Table 2.1-2. The contention states, "Given the multiple processes and characteristics identified as important to the capability of the topography and surficial soils and UZ features of the UNB, however, the proposed precipitation and seepage monitoring activities provide limited or no information to assess the adequacy of the basis for key elements in the infiltration, UZ flow, and seepage models." Petition at 16-17 (internal citation removed). However, the importance to barrier capability is only one consideration in the process used by the subject matter experts who identified the performance confirmation program activities. The

following three fundamental criteria were used in the risk-informed, performance-based selection process for performance confirmation activities:

- Sensitivity of barrier capability and system performance to the parameter
- Level of confidence in the current knowledge about the parameter
- Accuracy of information obtained by a particular test activity

Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at 1-10.

These criteria were evaluated in a decision analysis process that considered over 300 activities, parameters, and data acquisition methods, as described in the Performance Confirmation Plan. *Id*. at 1-10 to 1-12. Nye County has addressed neither of the latter two criteria, nor the methodology for the activity selection process.

Second, Nye County's assertions about the alleged omissions in the performance confirmation program activities are incorrect. According to Nye County:

> The performance confirmation activities proposed by the Applicant, which are limited to precipitation and seepage monitoring, [Yucca Mountain Repository License Application, General Information and Safety Analysis Report. DOE/RW-0573 REV 0. 2008. (SAR Table 4-1; SAR p. 4-43 to 4-47). LSN DEN 001592183] are not sufficient to assess the adequacy of the basis for modeling the features and processes assessed in evaluating the capability of the UNB, as shown below.

Petition at 8.

Elsewhere in the contention, Nye County acknowledges that subsurface water and rock testing and unsaturated zone testing are applicable to the UNB. *Id*. at 16. In fact, the complete list of performance confirmation activities that are applicable to the UNB includes the following:

- Precipitation monitoring
- Seepage monitoring
- Subsurface water and rock testing

- Unsaturated zone testing
- Thermally accelerated drift near-field monitoring
- Thermally accelerated drift in-drift environment monitoring
- Subsurface mapping
- Seal and backfill testing

SAR, Table 4-1. Since Nye County's imprecise reading of the SAR cannot be the basis for a litigable contention, *Georgia Institute of Technology* (Georgia Tech Research Reactor, Atlanta, GA.), LBP-95-6, 41 NRC 281, 300 (1995), this contention does not establish a genuine issue of material fact.

Third, Nye's alleged "gaps" in the list of activities related to the UNB in the performance confirmation program are not required activities and do not indicate a deficiency in the performance confirmation program. The contention lists the following as processes that should be monitored in the program:

For infiltration-

- Surface runoff
- Evaporation
- Transpiration
- Depth and properties of surficial soils
- Properties of shallow bedrock

For UZ flow-

- Distribution of rock-property values for fractures and matrix

For seepage-

- Spatially variable rock and fracture properties

See Petition at 17.

As described in the 2008 Addendum to the Performance Confirmation Plan, the performance confirmation program processes were evaluated during the most recent completeness evaluation of performance confirmation for the license application. Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at A-1[a] through A-56[a]. Using a risk-informed, performance-based approach, DOE conducted an updated completeness review to assure that the performance confirmation plan activities will support the technical basis for postclosure performance assessment of the natural and engineered barriers, including the UNB. Results of the review confirmed that the planned performance confirmation activities are sufficient to address the features and characteristics that describe barrier capability. No additional tests or monitoring activities were identified as necessary, based on DOE's evaluation of completeness of the performance confirmation program activities that considered the qualitative evaluations of model importance to dose and knowledge of the processes contributing to total expected dose. *Id*. at A-3[a] and A-19[a] to A-20[a]. Therefore, Nye County's claim that activities were inappropriately omitted from the Performance Confirmation Program is incorrect and does not controvert DOE's position as documented in its completeness evaluation. Nye County's failure to provide adequate support for its assertion that additional performance confirmation activities are necessary renders the contention inadmissible.

In summary, this contention does not establish a genuine issue of material fact. Therefore, the contention does not satisfy 10 C.F.R. § 2.309(f)(vi) and should be rejected.

2. NYE-SAFETY-2

Failure to include activities in the performance confirmation program sufficient to assess the adequacy of information used to evaluate the capability of the lower natural barrier (LNB) following repository closure.

RESPONSE

This contention asserts that DOE has failed "to include activities in the performance confirmation program sufficient to assess the adequacy of information used to evaluate the capability of the lower natural barrier (LNB) following repository closure."

a. Statement of Issue of Law or Fact to be Controverted

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

b. Brief Explanation of Basis

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

c. Whether the Issue is Within the Scope of the Proceeding

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

d. Whether the Issue is Material to the Findings that the NRC Must Make

In its attempt to demonstrate that this contention is material to the findings that the NRC must make in this proceeding, Nye County identifies various regulations. See Petition at 4. Nye County concludes this general description of various sections of 10 C.F.R. Part 63 with the mere assertion that "[t]he applicant has failed to adequately address the requirement that the performance confirmation program must provide data that indicate, where practicable, whether:

'Natural and engineered systems and components required for repository operation, and that are designed or assumed to operate as barriers after permanent closure, are functioning as intended and anticipated.' [10 CFR 63.131(a)(2).]" 10 C.F.R. § 2.309(f)(1)(iv) requires a showing by a petitioner that "the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding . . .," not merely a recitation of the relevant regulations. In this regard, a contention is material only if its resolution would make a difference in the outcome of the proceeding. See Duke Energy Corp., (Oconee Nuclear Station, Units 1, 2 and 3) CLI-99-11, 49 NRC 328, 333-34 (1999).

While the Advisory PAPO Board directed the potential parties to provide a "citation to a statute or regulation that, explicitly or implicitly, has not been satisfied" because specific citations are "preferable" to general citations (June 20, 2008 CMO, at 7.), this direction cannot be read to dispense with the well-recognized requirement that resolution of the contention would make a difference in the outcome of the proceeding, particularly since the CMO focused exclusively on "format" and "procedural matters." CMO at 3.

In particular, because the issue presented in this contention concerns postclosure performance, Nye County must demonstrate that the resolution of the issue would prevent the NRC from finding that there is a "reasonable expectation" that the radioactive materials can be disposed of without unreasonable risk to the health and safety of the public. *See* 10 C.F.R. § 63.31(a)(2). However, as discussed in Section IV.A.3 *supra*, and in 10 C.F.R. § 63.101 (a)(2), "because of the uncertainties inherent in the understanding of the evolution of the geologic setting, biosphere, and engineered barrier system," DOE is *not* required to provide complete assurance that each postclosure performance objective specified at § 63.113 will be

met. Therefore, Nye County must demonstrate that there is no reasonable expectation that the overall objective could be met. This contention makes no such showing.

The method the DOE used in addressing the performing confirmation program is consistent with what the NRC contemplates in 10 C.F.R. § 63.304, which recognizes that determining that there is a "reasonable expectation": (1) requires less than absolute proof, (2) accounts for the inherently greater uncertainties in making long-term projections of disposal system performance, (3) does not exclude important parameters from assessments and analyses due to the difficulty in quantifying with a high degree of confidence, and (4) focuses on performance assessments and analyses on the full range of defensible and reasonable parameter distributions rather than only upon extreme physical situations and parameter values.

In making its "reasonable expectation" determination, the NRC must evaluate DOE's compliance with the applicable provisions of Part 63, including, among other things, whether DOE has described the proposed geologic repository as specified in § 63.21, and whether the site and design comply with the Part 63 performance objectives and requirements. Proposed safety contentions that fail to raise issues that are material to these findings are inadmissible. For example, Part 63 permits DOE to use probabilistic analyses to calculate potential postclosure radiation doses, 10 C.F.R. § 63.102(j), and to report those doses as *mean* doses. *See* 10 C.F.R. § 63.303. Therefore, contentions that either independently or cumulatively, fail to demonstrate an increase in the mean dose *above regulatory limits* are immaterial and inadmissible because they would not "make a difference in the outcome of the licensing proceeding." *Duke Energy Corp*., CLI-99-11, 49 NRC at 333-34.

Nye County asserts that DOE has not included certain data in its performance confirmation program. Petition at 22. However, it fails to demonstrate that this issue is material to any finding the NRC must make to authorize construction of the repository. Specifically, it fails to demonstrate that resolution of the contention would make a difference in the proceeding. Petition at 22. As discussed below in f, DOE conducted a completeness evaluation of the performance confirmation program that considered features, events and processes, importance to barrier capability, and core parameter characteristics. Uncertain parameters for each model were ranked by level of importance based on sensitivity analysis of total expected dose to the reasonably maximally exposed individual (RMEI). Qualitative evaluations of model importance to dose were based on TSPA results for total expected dose to the RMEI and knowledge of the processes contributing to total expected dose. *See* Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN#DEN001590480) at Pg A-3[a]. This evaluation then concluded that no additional activities needed to be added to the performance confirmation program. Because of Nye County's failure to address the dose effects of the claimed omissions in the performance confirmation program, the contention is inadmissible.

Accordingly, this contention fails to raise an issue that is material to the findings that the NRC must make in this proceeding, and, thus, must be dismissed.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

Nye County fails to explicitly address this criterion, contrary to 10 CFR § 2.309(f)(1) and the Case Management Order. This alone is grounds for dismissal of the contention, as discussed in Section IV.A.3 above.

Even putting aside this pleading defect, the contention fails to raise a genuine dispute on a material issue of law or fact. The contention criticizes DOE for having insufficient activities in the performance confirmation program "to assess the adequacy of the basis for modeling the features and processes assessed in evaluating the capability of the LNB." Petition at 22. Nye County provides a list of alleged "gaps" in the performance confirmation program for UZ flow and transport and SZ flow and transport and goes on to propose that DOE be required to "include additional site specific data gathering, testing, and monitoring activities to address the gaps identified, or provide adequate basis for their omission." *Id*. at 30-31. For the reasons discussed below, these arguments do not raise a genuine dispute of material fact or law and must be dismissed.

First, Nye County's primary basis for its assertion that additional activities should be included in the performance confirmation program is apparently DOE's identification of the processes that significantly affect the capability of the LNB to provide its barrier function, as tabulated in SAR Table 2.1-4. The contention states, "Given the multiple processes and characteristics identified as important to the capability of the UZ and SZ features of the LNB, however, the proposed mapping and transport testing within the repository as a surrogate for testing in the UZ below the repository, and monitoring of water levels and chemistry, hydrologic and transport testing in fault zones, and transport testing only in the alluvium provide limited or no information on key elements in the UZ flow and transport, and SZ flow and transport

models." Petition at 29-30 (internal citation removed). However, the importance to barrier capability is only one consideration in the process used by the subject matter experts who identified the performance confirmation program activities. The following three fundamental criteria were used in the risk-informed, performance-based selection process for performance confirmation activities:

- Sensitivity of barrier capability and system performance to the parameter
- Level of confidence in the current knowledge about the parameter
- Accuracy of information obtained by a particular test activity

Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at 1-10. These criteria were evaluated in a decision analysis process that considered over 300 activities, parameters, and data acquisition methods, as described in the Performance Confirmation Plan. *Id*. at 1-10 to 1-12. Nye County has addressed neither of the latter two criteria, nor the methodology for the activity selection process.

Second, Nye County's assertions about the alleged omissions in the performance confirmation program activities are incorrect. According to Nye County:

> The performance confirmation activities proposed by the Applicant are limited to: 1) mapping and transport testing within the repository as a surrogate for testing in the UZ below the repository to the water table and 2) monitoring of water levels and chemistry, hydrologic and transport testing in fault zones, and transport testing in the alluvium as the principal means to evaluate the capability of the SZ below the repository to the accessible environment. [Yucca Mountain Repository License Application, General Information and Safety Analysis Report. DOE/RW-0573 REV 0. 2008. (SAR p. 4-15, 4-19 to 4-24) LSN DEN001592183.]

Petition at 22.

In fact, there are six separate activities in the performance confirmation program that are applicable to the LNB. Nevada has misread the SAR in that it has combined five of the six

activities into only two activities and has also failed to acknowledge the applicability of UZ testing results to the LNB. The complete list of performance confirmation program activities applicable to the LNB is as follows:

- Subsurface water and rock testing
- Unsaturated zone testing
- Saturated zone monitoring
- Saturated zone fault testing
- Saturated zone alluvium testing
- Subsurface mapping

SAR, Table 4-1. Since Nye County's imprecise reading of the SAR cannot be the basis for a litigable contention, *Ga. Inst. of Tech.* (Georgia Tech Research Reactor, Atlanta, GA.), LBP-95-6, 41 NRC 281, 300 (1995), this contention does not establish a genuine issue of material fact.

Third, the alleged "gaps" in the list of activities related to the LNB in the performance confirmation program are not required activities and do not indicate a deficiency in the performance confirmation program. The contention lists the following as processes that should be monitored in the program:

For UZ flow and transport-

- Distribution of property values for fractures and matrix as a function of stratigraphy, fault properties, perched water, lateral diversion and focusing of flow into faults
- Fracture flow
- Transport processes (advection, dispersion, matrix diffusion, and sorption) in the UZ below the repository to the water table

For SZ flow and transport-

- Distribution of property values for fractures and matrix as a function of stratigraphy, water conducting features, and transport processes (advection, dispersion, matrix diffusion, and sorption) in the fractured volcanic rocks that

make up the SZ below the repository and down gradient to the alluvial portion of the SZ

- Uncertainty in the location of the boundaries
- Transport properties of the alluvium along the inferred flow path in the SZ

See Petition at 30. As described in the 2008 Addendum to the Performance Confirmation Plan, program processes were evaluated during the most recent completeness evaluation of performance confirmation for the license application. Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at A-1[a] through A-56[a]. Using a risk-informed, performance-based approach, DOE conducted an updated completeness review to assure that the performance confirmation plan activities will support the technical basis for postclosure performance assessment of the natural and engineered barriers, including the LNB. Results of the review confirmed that the planned performance confirmation activities are sufficient to address the features and characteristics that describe barrier capability. No additional site specific data gathering, testing or monitoring activities were identified as necessary, based on DOE's evaluation of completeness of the performance confirmation activities that considered the qualitative evaluations of model importance to dose and knowledge of the processes contributing to total expected dose. *Id.* at A-3[a] and A-19[a] to A-20[a]. Therefore, Nye County's claim that activities were inappropriately omitted from the performance confirmation program is incorrect and does not controvert DOE's position as documented in its completeness evaluation of the performance evaluation program. Nye County's failure to provide adequate support for its assertion that additional performance confirmation activities are necessary renders the contention inadmissible.

In summary, this contention does not establish a genuine issue of material fact. Therefore, the contention does not satisfy 10 C.F.R. § 2.309(f)(vi) and should be rejected.

3. NYE-SAFETY-3

Failure to include activities in the performance confirmation program sufficient to assess the adequacy of information used as the basis for the site-scale-model relied upon to evaluate the capability of the saturated zone (SZ) feature of the lower natural barrier (LNB) following repository closure.

RESPONSE

This contention asserts that DOE has failed "to include activities in the performance confirmation program sufficient to assess the adequacy of information used as the basis for the site-scale model relied upon to evaluate the capability of the saturated zone (SZ) feature of the lower natural barrier (LNB) following repository closure."

a. Statement of Issue of Law or Fact to be Controverted

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

b. Brief Explanation of Basis

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

c. Whether the Issue is Within the Scope of the Proceeding

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

d. Whether the Issue is Material to the Findings that the NRC Must Make

In its attempt to demonstrate that this contention is material to the findings that the NRC must make in this proceeding, Nye County identifies various regulations. Nye County concludes this general description of various sections of 10 C.F.R. Part 63 with the mere assertion that

"[t]he applicant has failed to adequately address the requirement that the performance confirmation program must provide data that indicate, where practicable, whether: *'Natural and engineered systems and components required for repository operation, and that are designed or assumed to operate as barriers after permanent closure, are functioning as intended and anticipated.'* [10 CFR 63.131(a)(2).]" 10 C.F.R. § 2.309(f)(1)(iv) requires a showing by a petitioner that "the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding ...," not merely a recitation of the relevant regulations. In this regard, a contention is material only if its resolution would make a difference in the outcome of the proceeding. *See Duke Energy Corp.*, (Oconee Nuclear Station, Units 1, 2 and 3) CLI-99-11, 49 NRC 328, 333-34 (1999).

While the Advisory PAPO Board directed the potential parties to provide a "citation to a statute or regulation that, explicitly or implicitly, has not been satisfied" because specific citations are "preferable" to general citations (June 20, 2008 CMO, at 7.), this direction cannot be read to dispense with the well-recognized requirement that resolution of the contention would make a difference in the outcome of the proceeding, particularly since the CMO focused exclusively on "format" and "procedural matters." CMO at 3.

In particular, because the issue presented in this contention concerns postclosure performance, Nye County must demonstrate that the resolution of the issue would prevent the NRC from finding that there is a "reasonable expectation" that the radioactive materials can be disposed of without unreasonable risk to the health and safety of the public. *See* 10 C.F.R. § 63.31(a)(2). However, as discussed in Section IV.A.3 *supra*, and in 10 C.F.R. § 63.101 (a)(2), "because of the uncertainties inherent in the understanding of the evolution of the geologic setting, biosphere, and engineered barrier system," DOE is *not* required to provide

complete assurance that each postclosure performance objective specified at § 63.113 will be met. Therefore, Nye County must demonstrate that there is no reasonable expectation that the overall objective could be met. This contention makes no such showing.

The method the DOE used in addressing the performance confirmation program is consistent with what the NRC contemplates in 10 C.F.R. § 63.304, which recognizes that determining that there is a "reasonable expectation": (1) requires less than absolute proof, (2) accounts for the inherently greater uncertainties in making long-term projections of disposal system performance, (3) does not exclude important parameters from assessments and analyses due to the difficulty in quantifying with a high degree of confidence, and (4) focuses on performance assessments and analyses on the full range of defensible and reasonable parameter distributions rather than only upon extreme physical situations and parameter values.

In making its "reasonable expectation" determination, the NRC must evaluate DOE's compliance with the applicable provisions of Part 63, including, among other things, whether DOE has described the proposed geologic repository as specified in § 63.21, and whether the site and design comply with the Part 63 performance objectives and requirements. Proposed safety contentions that fail to raise issues that are material to these findings are inadmissible. For example, Part 63 permits DOE to use probabilistic analyses to calculate potential postclosure radiation doses, 10 C.F.R. § 63.102(j), and to report those doses as *mean* doses. *See* 10 C.F.R. § 63.303. Therefore, contentions that either independently or cumulatively, fail to demonstrate an increase in the mean dose *above regulatory limits* are immaterial and inadmissible because they would not "make a difference in the outcome of the licensing proceeding." *Duke Energy Corp.*, CLI-99-11, 49 NRC at 333-34.

Nye County asserts that DOE has not included certain data in its performance confirmation program. Petition at 35. However, it fails to demonstrate that this issue is material to any finding the NRC must make to authorize construction of the repository. Specifically, it fails to demonstrate that resolution of the contention would make a difference in the proceeding. See *Id*. at 35. As discussed below in f, DOE conducted a completeness evaluation of the performance confirmation program that considered features, events and processes, importance to barrier capability, and core parameter characteristics. Uncertain parameters for each model were ranked by level of importance based on sensitivity analysis of total expected dose to the reasonably maximally exposed individual (RMEI). Qualitative evaluations of model importance to dose were based on TSPA results for total expected dose to the RMEI and knowledge of the processes contributing to total expected dose. *See* Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at A-3[a]. This evaluation then concluded that no additional activities needed to be added to the performance confirmation program. Because of Nye County's failure to address the dose effects of the claimed omissions in the performance confirmation program, the contention is inadmissible.

Accordingly, this contention fails to raise an issue that is material to the findings that the NRC must make in this proceeding, and, thus, must be dismissed.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

Nye County fails to explicitly address this criterion, contrary to 10 CFR § 2.309(f)(1) and the Case Management Order. This alone is grounds for dismissal of the contention, as discussed in Section IV.A.3 above.

Even putting aside this pleading defect, the contention fails to raise a genuine dispute on a material issue of law or fact. The contention criticizes DOE for having insufficient activities in the performance confirmation program "to assess the adequacy of the basis for the site-scale model used in evaluating the capability of the SZ feature of the LNB." Petition at 35. Nye County provides a list of alleged "gaps" and discrepancies between the regional model and site-scale model and goes on to propose that DOE be required "to revise the performance confirmation program to include additional site-specific data gathering and testing activities to quantify the boundary fluxes, particularly along the northern and eastern portions of the site-scale model, in order to assess the adequacy of the information used as the basis for the site-scale model, or to provide an adequate basis for the omission of these activities." *Id*. at 42. For the reasons discussed below, these arguments do not raise a genuine dispute of material fact or law and must be dismissed.

First, DOE's risk-informed, performance-based selection methodology for identifying the activities in the performance confirmation program used the following three fundamental criteria:

- Sensitivity of barrier capability and system performance to the parameter
- Level of confidence in the current knowledge about the parameter
- Accuracy of information obtained by a particular test activity

Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480 at 1-10). These criteria were evaluated in a decision analysis process that considered over 300 activities, parameters, and data acquisition methods, as described in the performance confirmation plan. *Id*. at 1-10 to 1-12. Nye County has not directly addressed DOE's decision analysis process criteria, nor the methodology for the activity selection process.

Second, Nye County's assertions about the alleged omissions in the Performance Confirmation Program activities are incorrect. According to Nye County:

> The performance confirmation activities proposed by the Applicant are limited to: 1) monitoring of water levels and chemistry, 2) hydrologic and transport testing in fault zones, and 3) transport testing in the alluvium as the principal means to evaluate the capability of the SZ below the repository to the accessible environment [Yucca Mountain Repository License Application, General Information and Safety Analysis Report. DOE/RW-0573 REV 0. 2008. (SAR p. 4-15, 4-19 to 4-24). LSN DEN001592183]. These limited activities are not sufficient to assess the adequacy of the basis for the site-scale model used in evaluating the capability of the SZ feature of the LNB.

Petition at 35.

In fact, the complete list of applicable performance confirmation activities includes the following:

- Subsurface water and rock testing
- Unsaturated zone testing
- Saturated zone monitoring
- Saturated zone fault testing
- Saturated zone alluvium testing
- Subsurface mapping

SAR, Table 4-1. The three activities listed above that Nye did not recognize as relevant to the saturated zone feature of the LNB are subsurface water and rock testing, unsaturated zone testing, and subsurface mapping. Although these may appear to be limited to the unsaturated zone, much of the information will be equally applicable to the SZ feature of the LNB. Since Nye County's imprecise reading of the SAR cannot be the basis for a litigable contention, *Ga. Inst. of Technology* (Georgia Tech Research Reactor, Atlanta, GA.), LBP-95-6, 41 NRC 281, 300 (1995), this contention does not establish a genuine issue of material fact.

Third, the alleged "gaps" in the list of activities related to the SZ feature of the LNB in the performance confirmation program are not required activities and do not indicate a deficiency in the program. The contention asserts that "a series of wells should be drilled on the site model boundaries, particularly the northern and eastern boundaries." Petition at 42. As described in the 2008 Addendum to the performance confirmation plan, the performance confirmation program processes were evaluated during the most recent completeness evaluation of performance confirmation for the license application. Performance Confirmation Plan. TDR-PCS-SE-000001 REV 05 AD 01. (LSN# DEN001590480), at A-1[a] to A-56[a]. Using a risk-informed, performance-based approach, DOE conducted an updated completeness review to assure that the performance confirmation plan activities will support the technical basis for postclosure performance assessment of the natural and engineered barriers, including the SZ flow and transport feature of the LNB. Results of the review confirmed that the planned performance confirmation activities are sufficient to address the features and characteristics that describe barrier capability. No additional wells, tests or monitoring activities were identified as necessary, based on DOE's evaluation of completeness of the performance confirmation program activities that considered the qualitative evaluations of model importance to dose and knowledge

of the processes contributing to total expected dose. *Id.* at A-3[a] and A-19[a] to A-20[a]. Therefore, Nye County's claim that activities were inappropriately omitted from the performance confirmation program is incorrect and does not controvert DOE's position as documented in its completeness evaluation of the program. The failure to provide adequate support for its assertion that additional performance confirmation activities are necessary renders the contention inadmissible.

In summary, this contention does not establish a genuine issue of material fact. Therefore, the contention does not satisfy 10 C.F.R. § 2.309(f)(vi) and should be rejected.

4. NYE-SAFETY-4

Inadequate consideration of the radiation dose from naturally occurring radon emitted as a result of repository construction and normal operations.

RESPONSE

Nye County claims that the NRC should regulate naturally-occurring radon as part of the GROA's preclosure safety standard. Nye County also asserts that DOE's network of nine meteorological stations is inadequate to monitor localized wind disturbances and patterns that could cause fluctuations in airborne radon concentrations.

a. Statement of Issue of Law or Fact to be Controverted

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

b. Brief Explanation of Basis

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

c. Whether the Issue is Within the Scope of the Proceeding

Nye County challenges DOE's compliance with 40 C.F.R. Part 197, and 10 C.F.R. §§ 63.111, 63.112, 63.202, and 63.204 with respect to how the Application addresses doses to members of the public from radon originating from Yucca Mountain host rock. The contention should be dismissed because the NRC is not required to regulate and has no jurisdiction to regulate the public’s exposure to naturally occurring radon, thereby placing this contention squarely outside the scope of this proceeding

First, Nye County incorrectly argues that this contention raises an issue under the U.S. Environmental Protection Agency regulation in 40 C.F.R. § 197.4 and the substantively identical NRC regulation in 10 C.F.R. § 63.204. These regulations set out the preclosure standard for the

public health and environment for the storage of "radioactive material" by DOE in the Yucca Mountain repository and on the Yucca Mountain site. *See* 10 C.F.R. §§ 63.201, 63.204; 40 C.F.R. §§ 197.2, 197.4. However, naturally occurring radon is not "radioactive material." "Radioactive material" is defined in the NRC's regulations and 40 CFR § 197.2 as "matter composed of or containing radionuclides subject to the Atomic Energy Act of 1954" (AEA) *See* 10 C.F.R. § 63.202. In turn, the AEA provides the NRC with authority to regulate source, byproduct, and special nuclear material. *See, e.g.*, AEA § 2(d). The definition of these terms in AEA § 11 does not include naturally occurring radioactive material, with limited exceptions in AEA § 11(e)(4) not applicable to this contention. As stated by the Commission at 72 Fed. Reg. 55864, 55864-65 (Oct. 1, 2007) before the enactment of the limited exception in AEA § 11(e)(4), the NRC did not have authority over NORM [naturally occurring radioactive material] or regulations for this type of material." Thus, the naturally occurring radon emissions that are the subject of this contention do not fall within the definition of "radioactive material" in either 10 C.F.R. § 63.202 or 40 C.F.R. § 197.2, and NRC has no authority to regulate naturally occurring radon under the Atomic Energy Act. *See, e.g., FDA v. Brown & Williamson Tobacco Corp.*, 529 U.S. 120, 161 (2000) (holding that no matter how important the issue, an administrative agency's power to regulate must always be grounded in a valid grant of authority from Congress); *Gage v. AEC*, 479 F.2d 1214, 1220 (D.C. Cir. 1973) (indicating that reviewing courts must determine whether an action would exceed statutory authority and go "beyond the agency's organic jurisdiction"). Accordingly, Nye County does not raise an issue within the scope of this proceeding.

Second, even if radon fell within NRC's authority—which it clearly does not—the contention still would be beyond the scope of this proceeding because 10 C.F.R. § 63.204 and 40

C.F.R. § 197.4 apply to doses received from management and storage of radioactive material, and not to doses received from background radiation and naturally occurring radioactive material. 10 C.F.R. § 63.204 obligates DOE to:

> Ensure that no member of the public in the general environment receives more than an annual dose of 0.15 mSv (15 mrem) from the combination of: (a) *Management and storage* (as defined in 40 CFR 191.2) of radioactive material that: (1) Is subject to 40 CFR 191.3(a); and (2) Occurs outside of the Yucca Mountain repository but within the Yucca Mountain site; and (b) *Storage* (as defined in § 63.202) of radioactive material inside the Yucca Mountain repository.

10 C.F.R. § 63.204 (emphasis added). See also the substantively identical provisions in 40 C.F.R. § 197.4.[13] Nye County claims that 10 C.F.R. § 63.204 and 40 C.F.R. § 197.4 are implicated here because, as a result of the "storage operations," there will be a release of naturally occurring radon and its decay products into the atmosphere. Petition at 46. This argument fails. 40 C.F.R. § 191.3(a) establishes doses limits related to the "discharge of radioactive material and direct radiation from management and storage." Furthermore, naturally occurring radon is not being managed and stored per 40 C.F.R. § 191.2. Therefore, naturally occurring radon is not subject to 40 C.F.R. §§ 191.2 or 191.3(a) or to 10 C.F.R. § 63.204. Nye County has cited no precedent for taking doses from background radiation sources into account when evaluating compliance with regulatory radiological protection standards, and there is no such precedent. For example, 10 C.F.R. §§ 20.1003 and 20.1301(a), explicitly exclude doses from background radiation from the definition of "occupational dose" and doses to members of the public, and 10 C.F.R. § 20.1003 explicitly states that background radiation includes radon (except as a decay product of source or special nuclear material).

[13] Section 191.3(a) of Title 40 governs spent nuclear fuel or high-level or transuranic radioactive wastes at any facility regulated by the Commission or by a state that has an agreement with the Commission under the Atomic Energy Act. *See* 40 C.F.R. §§ 191.1, 191.3(a).

Finally, Nye County incorrectly relies on 10 C.F.R. § 63.112, "Requirements for preclosure safety analysis of the [GROA]," in claiming that this contention falls within the scope of the proceeding. That provision includes a requirement for the PCSA to identify and analyze "naturally occurring hazards." *See* 10 C.F.R. § 63.112(b) & (c). However, "naturally occurring hazards" in Sections 63.112(b) and (c) refer to potential hazards that may lead to event sequences involving the handling of radioactive material at the repository. For example, 10 C.F.R. § 63.102(f) refers to potential hazards in the context of "initiating events and their resulting event sequences." *See also* 66 Fed. Reg. at 55,741, which relates hazards and initiating events. Similarly, in promulgating the preclosure safety analysis regulations, the NRC described the PCSA as a systematic examination of hazards and *their potential for an event sequence*. *See* Disposal of High-Level Radioactive Wastes in a Proposed Geologic Repository at Yucca Mountain, Nevada, Proposed Rule) 64 Fed. Reg. 8640, 8675 (Feb. 22, 1999) (emphasis added). This was reiterated in the Commission's final rulemaking comments: "[T]he objective of [the PCSA] is to evaluate event sequences." *See* 66 Fed. Reg. at 55,778. In summary, within the context of the preclosure safety analysis, naturally occurring radon is not a natural hazard because it does not relate to or initiate an event sequence. Therefore, Nye County's reference to 10 C.F.R. § 63.112 is not material or relevant to naturally occurring radon.

Nye County acknowledges that the NRC does not regulate naturally occurring radon. *See* Petition at 49. It nonetheless argues that DOE should consider naturally occurring radon in the Yucca Mountain proceeding because this is not a "typical" proceeding, *Id.*, and 10 C.F.R. § 63.112 therefore should be read to cover "all radiological sources, not just sources contained in the spent nuclear fuel and high level radioactive waste." *Id.* at 50. But, as already demonstrated, neither Section 63.112 nor Section 63.204 requires DOE to consider naturally occurring radon,

and NRC has no jurisdiction over naturally occurring radon. By suggesting that NRC should impose requirements more stringent than contained in its regulations, Nye County is improperly challenging an existing NRC regulation. 10 C.F.R. § 2.335. *See Fla. Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159 (2001), aff'd on other grounds, CLI-01-17, 54 NRC 3.

Similarly, Nye County claims that the 10 mrem ALARA constraint in 10 C.F.R. § 20.1101(d) should include consideration of naturally occurring radon "in the spirit of good ALARA practices." Petition at 48. However, Section 20.1101(d) explicitly excludes doses due to naturally occurring radon. In fact, Nye County concedes, as it must, that DOE was not required to consider naturally occurring radon to comply with 10 C.F.R. § 20.1101(d). *See* Petition at 48. Thus, the County's assertion is an impermissible challenge to NRC regulations.[14]

In summary, the contention should be dismissed because (a) the NRC does not have jurisdiction under the AEA to regulate naturally occurring radon under Part 63, and (b) the contention impermissibly challenges NRC regulations.

d. Whether the Issue is Material to the Findings that the NRC Must Make

As noted above, the NRC is not required to consider doses from naturally occurring radon (and is not required to monitor for naturally occurring radon) as part of its safety findings under Part 63. Therefore, this contention fails to raise an issue that is material to the findings that the Commission must make in this proceeding and should be dismissed.

[14] Nye County also references the 100 mrem public dose limit in 10 C.F.R. § 20.1301(a)(1), but that limit excludes any dose contribution from "background radiation," a term that is defined in 10 C.F.R. § 20.1003, to include naturally occurring radon, and is therefore by definition inapplicable.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

Section IV.A.3 above discusses the legal standards under 10 C.F.R. § 2.309(f)(1)(v) that require adequate factual support or expert opinion in order for a contention to be admitted. This contention fails to meet those standards because, in contrast to the requirements of 10 C.F.R. § 2.309(f)(1)(v), as discussed in Section IV.A.3 above: (1) the analysis in the contention does not reference any documents, other than the license application and DOE's supporting documents; (2) the contention contains only unsupported assertions of counsel; and (3) the contention does not reference any expert opinion. Accordingly, this contention should be rejected.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

As discussed above, Nye County's claims that DOE must consider doses from naturally occurring radon are inconsistent with 40 C.F.R. Part 197, and 10 C.F.R. §§ 63.111, 63.112, 63.202, and 63.204 and are outside the scope of the proceeding. Accordingly, Nye County's claims of noncompliance with these regulations fail to raise a genuine dispute of material fact or law.

Nye County also challenges the adequacy of DOE's monitoring station program as it relates to radon. Petition at 51 - 53. However, that challenge to the monitoring program is based upon the premise that "the estimated [radon] dose [is] a high percentage of the 15 mrem allowed doses to a member of the public." Petition at 44. As discussed above, the premise of Nye County's claim is legally erroneous – the 15 mrem limit does not include doses from naturally occurring radon. Therefore, this erroneous premise does not suffice to establish a genuine dispute of material fact or law.

Additionally, Nye County ignores the SAR sections relating to DOE's monitoring program. *See* SAR Section 1.1.3.1 (pages 1.1-26 to 1.1-27); SAR Section 1.1.3.1.1 (page 1.1-28, SAR Rev 0); SAR Figure 1.1-12, page 1.1-349. Nor does Nye County acknowledge the environmental radiological monitoring system that will be provided, as stated in SAR Section 5.11.3.11 (pages 5.11-14 to 5.11-15, SAR Rev 0). Having failed to address any of these SAR provisions or try to explain why these provisions do not establish an appropriate meteorological monitoring program, the contention does not raise a genuine dispute of material issue of fact or law. As other licensing boards have previously held, a contention that does not directly controvert a position taken by the applicant in the application is subject to dismissal. *See Tenn. Valley Auth.* (Bellefonte Nuclear Power Plants Units 3 and 4), LBP-08-16, 68 NRC __ (Sept. 12, 2008), slip op. at 18, 29, 39-40, 42; *Tex. Util. Elec. Co.* (Comanche Peak Steam Electric Station, Unit 2), LBP-92-37, 36 NRC 370, 384 (1992).

For all of the reasons set forth above, this contention does not establish a genuine dispute on a material issue of fact or law and should be rejected.

5. NYE-JOINT-SAFETY-5

Failure to include the requirements of the National Incident Management System (NIMS), dated March 1, 2004, and related documentation in Section 5.7 Emergency Planning of the Yucca Mountain Repository Safety Analysis Report (SAR).

RESPONSE

This contention argues that DOE's emergency plan should include certain information—"key interoperability and standardized procedure and terminology requirements"—based on various Homeland Security Presidential Directives, including Homeland Security Presidential Direction 5 (HSPD-5), and the National Incident Management System (NIMS) established under those directives. NIMS provides a framework for Federal, State, local, and tribal governments to prevent, prepare for, respond to, and recover from domestic incidents.

a. Statement of Issue of Law or Fact to be Controverted

This contention must be dismissed because Nye County does not articulate a "particular safety or legal reason[] requiring rejection of the contested [application]." *Dominion Nuclear Conn., Inc.* (Millstone Nuclear Power Station, Units 2 and 3) CLI-01-24, 54 NRC 349, 359-60 (2001). Here, the contested application is DOE's request for construction authorization. *See* Hearing Notice, 73 Fed. Reg. at 63,029 (emphasis added) (limiting this proceeding to "whether the application satisfies the applicable safety, security, and technical standards . . . for *construction authorization*"). In its contention, however, Nye County merely requests that DOE include "key" NIMS concepts in its SAR sometime "before DOE can be granted *a license to receive and possess radioactive material*." Petition at 59. Significantly, the County makes no mention of the impact that this information might have on construction authorization, if it is not incorporated. Indeed, Nye County's reference to DOE's application for a "license to receive and possess" is an admission that not incorporating the information at this stage would not have any

impact on the pending Application. Accordingly, there is no controversy; and this contention should be dismissed.

b. Brief Explanation of Basis

This contention also must be dismissed because Nye County fails to provide "sufficient foundation" to "warrant further exploration" of the issues presented. *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 and 2), ALAB-942, 32 NRC 395, 428 (1990) (footnote omitted). Although Nye County expresses its position that DOE should include certain concepts from NIMS, it goes on to defeat its own argument by acknowledging that the Application already "addresses the NRC directives and DOE requirements as they are currently written." Petition at 59. As a result, regardless of what Nye County thinks DOE's Application *should* include, it stops short of challenging the Application or arguing about what DOE *must* include for construction authorization.

c. Whether the Issue is Within the Scope of the Proceeding

This contention also raises issues that are outside the scope of this proceeding. First, in its contention, Nye County attempts to meet this criterion by cross-referencing the section of its contention that relates to materiality. Petition at 57. Nevertheless, nothing in that section demonstrates that the NIMS concepts the County wants DOE to incorporate into its SAR even relate to construction authorization, or the requisite findings that the NRC must make. Therefore, the contention falls outside the scope of this proceeding. As noted, Nye County only requests that DOE provide this additional information "before DOE can be granted a license to receive and possess radioactive material." *Id.* at 59. Thus, in Nye County's own view, the information relates to DOE's application for a license to receive and possess radioactive material, not construction authorization.

Second, Nye County admits that DOE's Application already meets the applicable regulatory requirements—"as . . . currently written," Petition at 59—and that those requirements do not include any reference to the NIMS concepts it repeats throughout the contention. As a result, because the County is requesting that DOE provide additional information related to emergency planning, the County is advocating stricter requirements than the regulations impose. Accordingly, the contention must fail, because, it amounts to an improper attack on NRC regulations and/or policies. *See Fla. Power & Light Power & Light Co.* (Turkey Point Nuclear Generating Plant, Units 3 and 4), LBP-01-6, 53 NRC 138, 159, *aff'd*, CLI-01-17, 54 NRC 3 (2001) (providing that advocating for stricter requirements than NRC regulations impose is outside the scope of a proceeding); *Philadelphia Elec. Co.*, ALAB-216, 8 AEC at 20-21, 21 n.33 (providing that a contention that states the petitioner's views about what the regulatory policy should be does not present a litigable issue).

Third, insofar as Nye County argues that DOE has failed to adopt or comply with the NIMS concepts, though not as an applicant for an NRC license, but rather as a Federal agency with its own obligations under HSPD-5, the contention, again, falls outside the scope of this proceeding. Simply put, such an argument would put the NRC in the position of determining DOE's compliance with non-NRC requirements (*i.e.*, compliance with NIMS as administered by the U.S. Department of Homeland Security), which is not only outside the scope of this proceeding but altogether beyond the NRC's statutory authority and jurisdiction. *See Hydro Res. Inc.*, (292 Coors Road, Suite 101, Albuquerque, NM 87120), CLI-98-16, 48 NRC 119, 120 (1998).[15]

[15] In this regard, the County's statement that "[t]he absence of a specific reference to the new Federal requirements from the cited NRC regulations in no way alleviates DOE and NRC responsibility to ensure the implementation of . . . [NIMS] requirements," Petition at 57, has no legal effect. Although NIMS requirements apply to Federal agencies, they do not apply to NRC licensees or applicants. Notably, in NRC Regulatory

Finally, it warrants emphasizing that Nye County's contention is based entirely on a *description* of DOE's emergency plan; a plan that has not been completed. Furthermore, as the Application itself provides, and 10 C.F.R. § 72.32(b)(14) requires, DOE will give offsite response organizations 60 days to comment on DOE's emergency plan, before submitting it to the NRC. *See also* SAR at 5.7-41. Thus, assuming that Nye County is a potential offsite response organization, it will have an opportunity to comment on the emergency plan once it is completed. Until then, any issues in this contention about what the emergency plan will or will not contain are premature; and speculation about DOE's future emergency plan does not raise an issue within the scope of this proceeding. *Cf. Duke Energy Corp* (McGuire Nuclear Station, Units 1 & 2; Catawba Nuclear Station, Units 1 & 2), CLI-02-14, 55 NRC 278, 294 (2002) ("[a]n NRC proceeding considers the application presented to the agency for consideration and not potential future amendments that are a matter of speculation at the time of the ongoing proceeding").

d. Whether the Issue is Material to the Findings that the NRC Must Make

For all the same reasons this contention fails to present an issue that is within the scope of this proceeding, it also fails to present an issue that is material to the findings that the NRC must make. Perhaps most revealing is the fact that Nye County does not challenge DOE's compliance with any of the NRC's regulations governing the description of its emergency plan. Nye County

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Issue Summary (RIS) 2005-13, the NRC issued a summary of changes to the NRC Incident Response Plan, NUREG-0728, to conform the plan to NIMS requirements; and, in so doing, the NRC informed all NRC licensees that the guidance did not require "*any action.*" RIS 2005-13 at 8 (emphasis added). All emergency planning requirements for NRC licensees appear in NRC regulations, where, as the County, acknowledges, no reference to NIMS is made. *See also* NUREG-0728, Rev. 4 at IV.A (identifying licensees' responsibilities for incident response "*pursuant to provisions of* Title 10 of the Code of Federal Regulations") (emphasis added). To the extent that the County intends its quoted statement to mean that DOE is still subject to NIMS requirements as a Federal agency, even if not as an NRC applicant, the premise, again, is flawed. As noted above, it is not within the NRC's jurisdiction to decide DOE's compliance with requirements under directives that it does not administer.

asserts that the SAR "contains no reference to . . . NIMS or HSPD-5," Petition at 57, and goes on to state that the SAR "must include" various provisions from 10 C.F.R. § 72.32(b). *See* Petition at 58 (citing 10 C.F.R. §§ 72.32(b)(8), 72.32(b)(12), 72.32(b)(14), 72.32(b)(15), 72.32(b)(16)). But neither of these statements presents a material issue (or puts one in dispute). Nye County admits that nothing in NRC regulations requires DOE to reference NIMS or HSPD-5, and DOE clearly states at SAR Section 5.7 (p. 5.7-1) that an "Emergency Plan, fully compliant with 10 C.F.R. § 72.32, will be provided to the [NRC] no later than 6 months prior to the submittal of the updated license to receive and possess [SNF and HLW]."[16]

Nye County goes on to argue that "[b]ecause the applicant failed to include NIMS or adopt NIMS requirements, the NRC has no assurance of communications and equipment interoperability or the integration of local governmental participation in effective emergency planning and the provision of emergency information to the public." Petition at 58. As previously stated, not only does Nye County fail to establish, nor does it try to establish, that an NRC licensee is subject to any NIMS requirements, it also fails to link the alleged consequences of not following NIMS requirements to any of the findings that the NRC must make in connection with DOE's Application. Furthermore, as discussed in the next section, the alleged consequences lack any basis in fact. Accordingly, Nye County fails to present a material issue.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

Section IV.A.3 above discusses the legal standards under 10 C.F.R. § 2.309(f)(1)(v) that require adequate factual support or expert opinion in order for a contention to be admitted. This contention fails to meet those standards because, in contrast to the requirements of 10 C.F.R.

[16] To the extent Nye County is predicting that DOE will not comply with all of its lawful obligations, such speculation cannot support an admissible contention. *See Private Fuel Storage, LLC* (Independent Spent Fuel Storage Installation), CLI-01-9, 53 NRC 232, 234 (2001).

§ 2.309(f)(1)(v), as discussed in Section IV.A.3 above and the specific response below: (1) for the most part, the contention does not reference any documents, other than the application and various documents issued by the President and the U.S. Department of Homeland Security that have no direct relationship to NRC licensees; (2) the contention contains only unsupported assertions of counsel; and (3) the contention does not reference any expert opinion. The Petition does attach an affidavit (by Eugene I. Smith), which purportedly provides expert opinion to support this contention. However, rather than providing information to support the assertions in paragraph 5 of this contention, the affidavit simply "adopts" the otherwise unsupported assertions made in paragraph 5 of the contention. That approach falls far short of the requirement to provide conclusions supported by reasoned bases or explanation.

Although Nye County does not contend that DOE is out of compliance with any of the NRC's requirements governing the pending Application—to the contrary, it confirms that DOE is *in compliance*—in an attempt to show that DOE's failure to follow NIMS requirements could nonetheless have consequences, it makes a number of unsupported assertions, namely that:

> [f]ailure to include [NIMS] principles encourages site personnel to act independently of surrounding governmental agencies, greatly increases the likelihood of miscommunication and misunderstanding, and limits the ability of offsite responders to be sure their equipment will fully integrate with onsite equipment. Additionally, because the applicant intends to forward only those emergency plan changes deemed by the applicant to affect offsite agency, it is very possible that important issues will be missed.

These statements contain no references to any organizational behavior studies, or the like, or any other source that even suggests that the consequences described above could result from not following NIMS principles. As a result, this contention fails to provide the requisite facts or opinion to support this contention.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

In this contention, Nye County makes various conclusory statements about the importance of including NIMS concepts in the emergency planning portion of the SAR and does so without ever identifying any noncompliance issues with applicable NRC regulations. Nor does the County provide any nexus between the information it seeks to have DOE include in its SAR and the pending construction authorization proceeding. In fact, the County acknowledges that DOE's Application meets all applicable NRC regulations at this stage of the proceeding, and requests that DOE provide the information prior to submitting its application for a license to receive and possess radioactive materials. For all of the reasons, as well as the other mentioned in previous sections of this response, Nye County fails to demonstrate the existence of a genuine dispute on a material issue of law or fact.

6. NYE-JOINT-SAFETY-6

The LA lacks any justification or basis for excluding potential aircraft crashes as a category 2 event sequence.

RESPONSE

This contention alleges that the LA "lacks any justification or basis for excluding potential aircraft crashes as a category 2 event sequence." Petition at 67. In particular, Nye County alleges that DOE has provided "no basis or justification" for the flight restrictions or controls discussed in SAR Section 1.6.3.4.1, and has "merely assumed" that the U.S. Air Force will restrict its flight activities. *Id.* The contention further alleges that "[w]ithout the flight restrictions assumed by DOE, its calculation of aircraft crash event sequence probability would likely have significantly different results." *Id*. at 70.

For the reasons discussed below, contrary to 10 C.F.R. § 2.309(f)(1)(v) that requires adequate factual support or expert opinion in order for a contention to be admitted, this contention fails to explain how the alleged facts upon which Nye County relies support the contention, and provides no other supporting information, including expert opinion. In addition, the contention also must be rejected because it fails to state a legitimate issue of law or fact, lacks adequate basis in law or fact, and fails to establish a genuine dispute with DOE on a material issue of law or fact, contrary to 10 C.F.R. §§ 2.309(f)(1)(i), (ii), and (vi). As here, when a contention does not directly controvert a position taken by the applicant in the license application, it is subject to dismissal.

a. Statement of Issue of Law or Fact to be Controverted

As fully discussed below, there is ample basis or justification for the flight restrictions or controls discussed in SAR Section 1.6.3.4.1. Thus, Nye County has failed to state a legitimate issue of law or fact to be controverted in this proceeding.

b. Brief Explanation of Basis

As fully explained below, this contention lacks adequate factual or legal basis. In particular, Nye County ignores the fact that DOE has incorporated the flight restrictions at issue into specific Preclosure Procedural Safety Controls (PSCs), which are included in Table 1.9-10 of the SAR (*see* PSC-15 to PSC-18 at. 1.9-144 to 145). Furthermore, there is no legal basis for Nye County's "belief" that, "before NRC allows DOE to begin *construction* of the repository, it should require a binding agreement between DOE and the [U.S. Air Force] mandating the flight restrictions assumed by DOE in its preclosure safety analysis." Petition at 71 (emphasis added).

c. Whether the Issue is Within the Scope of the Proceeding

Without prejudice to other positions taken by DOE, DOE expresses no legal objection based upon this requirement.

d. Whether the Issue is Material to the Findings that the NRC Must Make

As fully explained below, Nye County's contention fails to establish a genuine dispute on a material issue of law or fact.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

This contention fails to meet the requirements of 10 C.F.R. § 2.309(f)(1)(v) because it lacks adequate factual or legal basis. First, there is no factual basis for Nye County's claim that DOE has provided "no basis or justification" for the flight restrictions or controls discussed in SAR Section 1.6.3.4.1. As identified in that section, the proposed flight-restricted airspace and operational constraints over the repository include the following:

- Flights by fixed-wing aircraft in the Nevada Test Site or Nevada Test and Training Range airspace within 4.9 nautical mi (5.6 statute mi) of the North Portal and below 14,000 ft mean sea level are prohibited.

- 1,000 overflights of this flight-restricted airspace per year are permitted above 14,000 ft mean sea level for fixed-wing aircraft.
- Maneuvering over the flight-restricted airspace is prohibited; flight is straight and level.
- Carrying ordnance over the flight-restricted airspace is prohibited.
- Electronic jamming activity over the flight-restricted airspace is prohibited.
- Helicopter flights within 0.5 mi of the surface facilities and areas that handle SNF and high-level radioactive waste are prohibited. The helipad associated with the repository is located at least 0.5 mi from the surface facilities that handle SNF and high-level radioactive waste.

SAR at 1.6-22. SAR Section 1.6.3.4.1 further indicates that these restrictions will not be needed for years to come. Reflecting both this fact and the need for DOE to retain flexibility to address any potential future modifications or additions to flight activities within the special-use airspace over the repository, SAR Section 1.6.3.4.1 states:

> It should be noted, however, that because air traffic restrictions for the repository would not be required for a number of years, DOE would take into consideration any modifications or additions to flight activities within the special-use airspace over the repository during the construction period. If necessary to support repository operations, DOE would seek a special-use airspace designation from the Federal Aviation Administration. In addition, airspace restrictions could include agreements with the U.S. Air Force and other users to manage traffic in the vicinity of the repository. The accident analysis conducted assumed that such flight restrictions would occur.

Id.

Nye County does not address the fact that DOE has incorporated the flight restrictions identified above into specific PSCs, which are included in Table 1.9-10 of the SAR (*see* PSC-15 to PSC-18 at 1.9-144 to-145). The SAR states that the PSCs presented in Table 1.9-10 will "be implemented in facility operations to prevent and mitigate event sequences," and that these PSCs

will impose "interface controls on activities outside of the GROA that could potentially lead to an event sequence." SAR at 1.9-2.

SAR Section 5.8.3 describes the implementation of the PSCs (*i.e.*, flight restrictions) enumerated above. Section 5.8.3 states, in part, as follows:

> Prior to receipt of a license to receive and possess SNF and HLW, and in accordance with 10 CFR 63.121(c), controls will be implemented to ensure that the requirements of 10 CFR 63.111(a) and (b) are met. The site boundary, as shown in Figure 5.8-2, will be considered as the boundary of the preclosure controlled area under the definition of 10 CFR 20.1003. Such land use controls will include ensuring that U.S. Air Force flight activities in the proximity of the GROA remain within the repository performance analysis considerations of existing and projected U.S. Air Force flight activity (Section 1.6.3.4.1).

SAR at 5.8-7.

Thus, DOE has committed in the Application to implement appropriate PSCs. It is well-established that a docketed commitment can satisfy a licensee's regulatory obligation. *AmerGen Energy Co., LLC* (Oyster Creek Nuclear Generating Station), LBP-06-7, 63 NRC 188, 207 (2006) (accepting licensee commitment as satisfying regulatory obligation). Significantly, as noted above, the flight restrictions for the airspace over the repository are not actually required until the nuclear waste forms are located at the repository, an activity that will require a separate licensing action (and an associated hearing opportunity) pursuant to 10 C.F.R. § 63.41. Contrary to Nye County's apparent belief, such commitments need not necessarily be reduced to a license condition, particularly where, as here, the relevant license is the subject of another, future NRC licensing proceeding. *See, e.g.*, *Private Fuel Storage, L.L.C.* (Independent Spent Fuel Storage Installation), CLI-03-8, 58 NRC 11, 21 (2003) (holding that all licensee commitments need not be converted into express license conditions to be enforceable).

Nye County also fails to provide any legal basis for its "belief" that, "before NRC allows DOE to begin *construction* of the repository, it should require a binding agreement between DOE and the [U.S. Air Force] mandating the flight restrictions assumed by DOE in its preclosure safety analysis." Petition at 71 (emphasis added). Insofar as it rests on this argument, the contention is deficient and thus inadmissible in two major respects. First, Nye County cites no statute, regulation, or other legal requirement that would require DOE to execute such a "binding agreement" with the Air Force or any other governmental entity in order to obtain a construction authorization from the NRC. Second, Nye County points to no legal authority pursuant to which the NRC could compel DOE and another federal agency to enter into such an agreement, even assuming one were required at this juncture.

As noted above, the flight restrictions set forth in the SAR will be implemented as PSCs, in accordance with 10 C.F.R. §§ 63.111(a)-(b) and 63.121. Section 63.121(c) states that, in establishing appropriate controls outside the geologic repository operations area, "DOE shall exercise any jurisdiction or control of activities necessary to ensure the requirements at Sec. 63.111(a) and (b) are met," and that such "[c]ontrol includes the *authority* to exclude members of the public, *if necessary*." 10 C.F.R. § 63.121(c) (emphasis added). As discussed further below, Nye County does not directly controvert DOE's authority, as described in the SAR, to implement the specified airspace controls. More to the immediate point, no NRC regulation—and none is cited by Nye County in paragraph 5 of its contention—requires DOE to implement such controls now, whether through a "binding agreement" with the Air Force or by other means, as part of its construction authorization request. (As discussed in section f. below, interactions between DOE and the Air Force to date already have resulted in a revision to the applicable Air Force

instruction that includes additional flight restrictions consistent with those listed in SAR Section 1.6.3.4.1.)

To the contrary, NRC regulations require only that DOE "identify" and "describe" those controls that are necessary to ensure compliance with applicable Part 63 requirements, and which may be implemented by DOE pursuant to its applicable authorities. For example, 10 C.F.R. § 63.21(c), which prescribes the contents of the SAR, requires, among other things, "[a] *description* of the controls that DOE *will* apply to restrict access and to regulate land use at the Yucca Mountain site and adjacent areas." 10 C.F.R. 63.21(c)(24) (emphasis added). The YMRP, which guides the NRC Staff' review of the Application, directs the Staff to assess whether "any additional controls" are "acceptable and sufficient." YMRP § 2.5.8.3 at 2.5-100. In the same vein, the YMRP directs the Staff to evaluate whether DOE has "identified" any "existing or proposed permissible rights or encumbrances that exist and may be continued, or that *should be established* outside the geologic repository operations area," and whether DOE has assessed the nature of any activities that may permissibly occur under those rights. *Id*. (emphasis added). DOE has provided the required information in its SAR, in accordance with the aforementioned regulations and 10 C.F.R. § 63.112(d), which requires the technical basis for exclusion of specific human-induced hazards (aircraft hazards in this case) in the PCSA.

In summary, Nye County has failed to meet the requirements of Section 2.309(f)(1)(v). As the proponent of the contention, it bears "the initial burden of coming forward with factual issues, not merely conclusory statements and vague allegations." *Northeast Nuclear Energy Co.* (Millstone Nuclear Power Station, Unit No. 3), CLI-01-3, 53 NRC 22, 27 (2001). Nye County has failed to provide the requisite factual, technical, or legal analysis for its claim that DOE has not provided adequate justification for crediting the flight restrictions specified in SAR Section

1.6.3.4.1. Accordingly, the contention must be rejected as lacking adequate legal or factual support.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

This contention also fails to establish a genuine dispute with DOE on a material issue of law or fact, contrary to 10 C.F.R. § 2.309(f)(1)(vi). As a threshold matter, it warrants mention that Nye County fails to explicitly address this criterion, contrary to 10 C.F.R. § 2.309(f)(1) and the Case Management Order. This alone is grounds for dismissal of the contention, as discussed in Section IV.A.3 above.

Even putting aside this pleading defect, this contention does not meet the requirements of 10 C.F.R. § 2.309(f)(1)(vi). At its core, the contention seeks to challenge DOE's ability to implement the flight-restricted airspace and operational controls credited in the aircraft hazard analysis and identified in the SAR. However, nowhere in the contention does Nye County directly and credibly challenge DOE's authority or ability to implement the aircraft-related PSCs listed in SAR Section 5.8.3.

In fact, the SAR amply demonstrates DOE's authority to implement the additional flight restrictions discussed therein. SAR Section 1.1.1.3.2.1 describes the NTS airspace. *See* SAR at 1.1-13 to 1.1-14. The NTS airspace is protected by restricted areas R-4808N and R-4808S, known jointly as R-4808. Restricted areas are a type of special-use airspace that separate or confine air activities that are considered dangerous or unsafe to aircraft not involved in the activity. Federal Aviation Administration (FAA) regulations prohibit flights by nonparticipating military, civilian or commercial aircraft in this special-use airspace without the controlling authority's authorization. If the area is not designated for joint use (nonjoint use), then nonparticipating aircraft are normally not permitted at any time. The repository surface facility

is located in restricted area R-4808N, which is designated as nonjoint use by the FAA. DOE is the controlling authority for the airspace. SAR at 1.1-14. As the controlling authority, DOE allows military aircraft to transit R-4808N. DOE has existing avoidance areas (further flight-restricted areas) over the Device Assembly Facility and over BREN (Bare Reactor Experiment-Nevada) Tower, as well as several other areas within R-4808N. *Id*.

As discussed above, additional flight restrictions have been identified in SAR Sections 1.6.3.4.1 and 5.8.3 for the airspace above the repository surface facilities. As the controlling authority for that airspace, DOE has full authority to implement the additional restrictions when needed. Although these flight restrictions for the airspace are not needed until nuclear waste forms are actually located at the repository, DOE nonetheless has taken steps to facilitate implementation of the additional flight restrictions identified in the SAR. Specifically, interactions with the U.S. Air Force Warfare Center at Nellis Air Force Base, Nevada, have resulted in a revision to Air Force Instruction (AFI) 13-212, Volume 1, Addendum A. AFI 13-212, Vol. 1, IC 2, "Summary of Changes – Interim Change to AFI 13-212" (Dec. 17, 2008) (LSN# DEN001606834 at 5). This revision includes the additional restrictions, with a future implementation date, for the airspace above the repository surface facilities consistent with the restrictions outlined in SAR Section 1.6.3.4.1. Currently, these future restrictions serve only as a reference for future use and planning purposes, given that DOE is not yet receiving SNF and HLW at the repository. When repository operations commence under an NRC-approved license, DOE (currently through the National Nuclear Security Administration Nevada Site Office) will implement the applicable flight restrictions. These restrictions will be implemented in the same manner as the current avoidance areas in R-4808N. Specifically, DOE will *require* the Air Force to revise the formal Air Force Instructions to include the restrictions. *Id*.

If necessary to support repository operations, DOE also can seek an additional special-use airspace designation from the FAA for the southwest portion of the 4.9 nautical mile radius airspace that currently is not special-use airspace. SAR at 1.6-22. The FAA publishes annually, as Order JO7400.8, a listing of all regulatory and non-regulatory special use airspace areas, as well as issued but not yet implemented amendments to those areas established by the FAA. *See* 14 CFR Part 73. The Order states that its audience is Airspace and Aeronautical Operations, Air Traffic Controllers, and interested aviation parties. *Id.* The FAA also identifies special-use air space on charts. *Id*. FAA would include the designation of any new special use airspace in its Orders and charts. Therefore, as with R-4808N, any new special-use airspace would be identified for pilots as a nonjoint-use restricted-airspace.

In view of the above, contrary to Nye County's contention, there is ample "basis or justification" for the flight restrictions or controls discussed in SAR Section 1.6.3.4.1. There is no litigable dispute on this issue.

Additionally, as discussed earlier, contentions that allege errors, omission, uncertainties or alternative approaches—without indicating the specific ramifications or result of such deficiencies—fail to raise a genuine dispute of material fact or law and are, therefore, inadmissible. This contention also suffers from this flaw. Nye County claims that, absent the flight restrictions specified in the SAR, DOE's "calculation of aircraft crash event sequences probability would likely have significantly different results." Petition at 70. In so asserting, however, Nye County makes no attempt to engage the specifics of DOE's frequency analysis of aircraft hazards, as referenced in the SAR and presented in the engineering report *Frequency Analysis of Aircraft Hazards for License Application* (2007) (LSN# DN2002488951 and LSN# DEN001564755). Nye County's conclusory assertion that "an aircraft crash into repository

facilities would be much more probable and categorized as a category 2 event sequence per 10 CFR 63.2" is insufficient to warrant admission of the contention. Petition at 71.

For the foregoing reasons, the contention does not satisfy 10 C.F.R. § 2.309(f)(vi) and should be rejected. The contention does not directly controvert the application and establish a "genuine dispute of fact or law meriting an evidentiary hearing." *Northeast Nuclear Energy Co*. CLI-01-3, 53 NRC at 24.

For all of the reasons discussed above, this contention must be dismissed.

7. NYE-NEPA-1

Failure to Adequately Consider Cumulative Impacts to the Environment, Over Time, from Releases of Radiological and Other Contaminants to Groundwater and from Surface Water Discharges.

RESPONSE

In this contention, Nye County alleges that DOE's NEPA documents are deficient because DOE failed to analyze (1) the repository's cumulative impact on groundwater in the volcanic-alluvial aquifer over time; (2) the nature and extent of the repository's cumulative impact on groundwater when added to the contaminants from past and future activities at the Nevada Test Site; and (3) the potential impacts from discharges of potentially contaminated groundwater to the surface. Parts (1) and (3) of this contention raise essentially the same issues that the NRC Staff raised in its report on the adoption of the DOE EISs. Part (2) is already addressed in the 2002 FEIS and Repository SEIS (as described below) and that analysis is not challenged here. Similarly, the subject of Paragraph 5(s.) of the contention – future monitoring – is already addressed in the Repository SEIS and not challenged in the contention.

Although DOE has agreed to perform an analysis of the cumulative impacts to groundwater in the volcanic-alluvial aquifer over time and from the discharge of potentially contaminated groundwater and supplement its EIS at the request of the NRC Staff, DOE's agreement does not make this an admissible contention unless Nye County makes the threshold showings required by 10 C.F.R § 51.109 and 10 C.F.R. § 2.326. All NEPA contentions must demonstrate that they meet the criteria of 10 C.F.R § 51.109 and 10 C.F.R. § 2.326, as well as the standards for contentions of 10 C.F.R. § 2.309. Nye County fails to meet the express requirements of 10 C.F.R. §§ 2.326 and 51.109 in requesting that its contention be admitted. Specifically, as set forth in Section IV.A.4 above, Nye County must (1) raise a significant

environmental issue; and (2) demonstrate that its contention, if proven to be true, would or would likely result in a materially different outcome in this proceeding. Moreover, its environmental contention must be supported by the affidavit of a qualified witness that sets forth the factual and/or technical basis supporting the claim that these two criteria have been met, including "a specific explanation of why it has been met." 10 C.F.R. § 2.326(b). As noted in Section IV.A.4 above, "the Commission expects its adjudicatory boards to enforce the [Section 2.326] requirements rigorously – *i.e.*, to reject out-of-hand reopening motions that do not meet those requirements within their four corners." *Pub. Serv. Co. of N.H.* (Seabrook Station, Units 1 and 2) ALAB-915, 29 NRC 427, 432 (1989).

Nye County fails to address any of the mandatory requirements of §§ 51.109 and 2.326 in its contention or supporting expert affidavits. In particular, the affidavit of Ms. Maryellen Giampaoli contains no analysis or other information to satisfy the requirements of demonstrating that these criteria have been met. First, her affidavit fails to demonstrate that a "materially different result would be or would have been likely" if the contention were proven to be true. Nor does she "set forth the factual or technical bases for the movant's claim that the criteria of paragraph (a) [of Section 2.326] have been satisfied." Ms. Giampaoli never addresses the significance of the issue or explains why the issue is material. She simply raises a series of questions but has done no independent analysis that would allow her to conclude that this contention, even if true, would have any impact on the outcome of this proceeding.

For example, in her affidavit, Ms. Giampaoli contends without any support "NTS activities have resulted in radiological contamination on the surface and in the ground water that may enter the Yucca Mountain flow system." An affidavit that something may occur, *i.e.*, that something is possible, provides no basis for a contention and clearly does not support Nye

County's suggestion that DOE should evaluate the possibility that contamination from NTS activities should also be addressed in a supplement. Moreover, this statement ignores the fact that the 2002 FEIS and Repository SEIS both addressed this issue and, even making the conservative assumption that potential contaminants from NTS would be additive (in time and space) with those of the repository, the evaluation found that the contamination from the NTS activities would make an insignificant contribution to the total dose. 2002 FEIS, Vol. I at 8-76 to -78; Repository SEIS, Vol. I at 8-36 to -37. Neither Nye County nor its expert challenges this evaluation and thus the suggestion that DOE needs to evaluate NTS contamination should be rejected.

Ms. Giampaoli provides no analysis supporting Nye County's further allegation in the contention that "the possibility of cumulative impacts from releases to groundwater and surface discharges also underscores the need for additional monitoring beyond the RMEI location as discussed in Nye County's Contention entitled Nye-Safety-3." As noted above, the mere possibility of cumulative impacts provides no basis for a monitoring program. Equally important, the contention fails to acknowledge that Section 9.2.2 of the Repository SEIS provides that DOE would conduct monitoring at the repository to ensure adequate performance. *See* Repository SEIS, Vol. I at 9-7 to -10. An amendment to the NRC license would define the details of the postclosure program because it would not start until about 100 years after start of operations. Deferring the details of this program to the closure analytical period would allow identification of technologies that might not be currently available. Neither the NRC nor Nye County challenge this planned monitoring program and thus there is no basis for including monitoring in the supplement DOE is currently preparing.

a. Statement of Issue of Law or Fact to be Controverted

The issue presented by the first and third parts of this contention, as described above, are the subject of a supplement being prepared by DOE. As described above, there is no need to conduct further evaluations of the contaminants resulting from NTS activities. If the Board finds that the requirements of 10 C.F.R. § 51.109 and 10 C.F.R. § 2.326 have been met, consideration of this contention without further evaluation of NTS activities or monitoring as described above, should be deferred until DOE issues its supplement. If Nye County disagrees with the resolution of this issue in the supplement, this issue can be raised at that time.

b. Brief Explanation of Basis

See discussion of 10 C.F.R. §§ 51.109 and 2.326 and section a. above.

c. Whether the Issue is Within the Scope of the Proceeding

See discussion of 10 C.F.R. §§ 51.109 and 2.326 and section a. above.

d. Whether the Issue is Material to the Findings that the NRC Must Make

See discussion of 10 C.F.R. §§ 51.109 and 2.326 and section a. above.

e. Statement of Alleged Facts or Expert Opinion Supporting Petitioner's Position and Supporting References

For the reasons discussed above with respect to the requirements of 10 C.F.R. §§ 51.109 and 2.326, and as addressed in Section IV.A.3 regarding the legal standards under 10 C.F.R § 2.309(f)(1)(v), Nye County has failed to provide the requisite supporting facts, expert opinion and references.

f. Existence of a Genuine Dispute on a Material Issue of Law or Fact, With Supporting References to the License Application

See discussion of 10 C.F.R. §§ 51.109 and 2.326 and section a. above.

V. CONCLUSION

DOE has no reason to believe that Nye County is not in substantial and timely compliance with its LSN obligations at this time, and does not object to Nye County's legal standing. However, DOE does not believe that Nye County has proffered any admissible contentions. Therefore, its Petition should be dismissed.

Respectfully submitted,

Signed electronically by Donald J. Silverman

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Dated in Washington, D.C.
this 15th day of January 2009.

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	
	)	January 15, 2009
U.S. Department of Energy	)	
	)	
(License Application for Geologic Repository at Yucca Mountain)	)	Docket No. 63-001

CERTIFICATE OF SERVICE

I hereby certify that copies of the "**ANSWER OF THE U.S. DEPARTMENT OF ENERGY TO NYE COUNTY, NEVADA PETITION TO INTERVENE AND CONTENTIONS"** have been served on the following persons this 15th day of January, 2009 by the Nuclear Regulatory Commission's Electronic Information Exchange.

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