

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Atomic Safety and Licensing Board

Before Administrative Judges:

ASLBP BOARD 09-892-HLW-CAB04 Thomas S. Moore, Chairman Paul S. Ryerson Richard E. Wardwell
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In the Matter of)	
)	
U.S. DEPARTMENT OF ENERGY)	Docket No. 63-001-HLW
)	
(High Level Waste Repository))	July 16, 2009

**REPLY OF THE STATE OF NEVADA TO
DOE'S ANSWER TO NEV-SAFETY-202 AND 203**

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On May 12, 2009, the State of Nevada ("Nevada") filed two new contentions, designated as NEV-SAFETY-202 and NEV-SAFETY-203. These two new contentions focus on "fresh grounds" that arise from the Nuclear Regulatory Commission's ("NRC") final rule implementing the Environmental Protection Agency's ("EPA") standards for the post-10,000-year Yucca Mountain performance assessment ("NRC final rule" or "final rule"). On July 2, 2009, the Department of Energy ("DOE") filed an Answer objecting to both contentions ("Answer"). For the reasons given below, DOE's objections are unfounded. NEV-SAFETY-202 should be fully admitted, but if the NRC rule must be interpreted to exclude it, the matter should be certified to the Commission pursuant to 10 C.F.R. § 2.335. NEV-SAFETY-203 should be certified to the Commission under 10 C.F.R. § 2.335, as requested.

I. INTRODUCTION

The background of NEV-SAFETY-202 and NEV-SAFETY-203 is explained in Nevada's Reply to NRC Staff's Answer to NEV-SAFETY-202 and NEV-SAFETY-203, filed on July 3, 2009, and it will not be fully repeated here. In brief summary, NEV-SAFETY-202 builds upon admitted contentions NEV-SAFETY-009 through 012, which address processes of climate change as they should have been included in DOE's Total System Performance Assessment ("TSPA"), and NEV-SAFETY-203 builds upon admitted contention NEV-SAFETY-041, which addresses erosion as it should have been included in the TSPA. NEV-SAFETY-202 and NEV-SAFETY-203 put into sharp focus the critically important processes of climate change and erosion as they should have been included in the post-10,000-year TSPA and raise questions about the effect of the NRC final rule on the scope of this licensing proceeding.

II. NEVADA MAY REPLY TO DOE'S OBJECTIONS TO ITS WAIVER REQUESTS

Perhaps concerned about the weaknesses in its arguments, DOE asserts that its objections to Nevada's waiver requests under 10 C.F.R. § 2.335 should be sustained without giving Nevada any right to reply to them (Reply at 1, n.2). Denying Nevada the opportunity to reply to DOE's arguments would violate due process of law. *See Goss v. Lopez*, 419 U.S. 565 (1975); *Public Service Commission of Kentucky v. FERC*, 397 F.3d 1004 (D.C. Cir. 2005). Moreover, this argument misreads the Commission's rules. 10 C.F.R. § 2.335 is silent on whether a reply may be filed, but this silence cannot be construed as a prohibition on filing a reply because, as evidenced by 10 C.F.R. §§ 2.323(c), 2.342(d), and 2.1025(a), prohibitions on responsive pleadings in the Commission's rules are always express, never implied, and there is no express prohibition in 10 C.F.R. § 2.335. If DOE were correct, the express prohibitory language in 10 C.F.R. §§ 2.323(c), 2.342(d), and 2.1025(a) would be superfluous.

III. NEV-SAFETY-202 WAS TIMELY FILED

DOE argues that NEV-SAFETY-202 was untimely filed because the Commission's Notice of Hearing allows the filing of amended contentions, not new ones (Answer at 3-5). This is nonsensical hair splitting. In allowing parties to "amend their 'EPA standards'-related contentions later," the Commission obviously had in mind "amend" in its broadest sense, as allowing the parties to "amend" their collections of "'EPA standards'-related contentions" by either changing old ones or adding new ones, based on the NRC final rule. DOE does not and cannot offer any reason why the Commission would distinguish between "new" contentions and "amended" contentions in this regard. 10 C.F.R. § 2.309(f)(2) treats both the same in applying the extra pleading requirements associated with late contentions, and surely the Commission would have been specific if it intended there to be a distinction between "new" contentions and

"amended" contentions in the Notice of Hearing. Indeed, footnote 5 in the Notice of Hearing (not mentioned by DOE) indicates clearly that both new contentions and amended contentions are allowed. Footnote 5 states that "[i]n the case of the yet-to-issue NRC rules, however, the Commission is dispensing in advance with all 'late-filed' factors except the 'good cause' factor. It is obvious even now that promptly-filed and well-pled *contentions* based on new, previously unavailable NRC rules – rules that will govern important aspects of NRC's safety review – must be admitted for hearing. There plainly would be 'good cause' for fling such *contentions* late and no conceivable justification for rejecting them at the threshold" [emphasis added]. 73 Fed. Reg. 63,029, 63,032 (Oct. 22, 2008).

DOE's argument produces the ridiculous result sought to be avoided in footnote 5. As DOE would have it, "new" contentions based on the final rule would be considered late, and subject to the late-filing requirements of 10 C.F.R. § 2.309(f)(2), even though "timely" filing would have been impossible because the final rule upon which they were to be founded was not yet published. Similarly, assuming that an "amended" contention must build on the original contention, or else be regarded as, in essence, a "new" contention, petitioners could not file a collection of original contentions that would be amenable to the amendments DOE concedes are allowed without knowing what the NRC final rule contained. A collection of contentions maintaining that the application violates the EPA rule, as allowed in the Notice of Hearing, could not provide a sufficient baseline for future amendments because (as explained below) the NRC final rule could have imposed requirements in addition to the bare minimum needed to implement the EPA rule, and until the NRC final rule was published, no petitioner could know what additional requirements, if any, would be imposed.

DOE also argues that NEV-SAFETY-203 should be rejected as untimely, but its argument depends on the false premise (discussed below) that NEV-SAFETY-203 attacks the EPA rule.

IV. NEVADA DOES NOT CHALLENGE THE EPA RULE

DOE argues in various places that Nevada's petitions for waiver under 10 C.F.R. § 2.335 are improper attempts to challenge the EPA rule (Answer at 4, 11, 22). This argument is wrong because it fundamentally distorts the relationship between NRC and EPA and misconstrues Nevada's petitions.

Section 801 of the Energy Policy Act of 1992, 42 U.S.C. § 10141(b)(1) ("EnPA"), requires EPA to promulgate radiation standards for Yucca Mountain and requires NRC to modify its Yucca Mountain standards "as necessary, to be consistent with the Administrator's standards. . . ." The Conference Report on the EnPA, Report No. 102-1018, 102d Congress, 2d Session, October 5, 2002, provides (at 4466) that "the provisions of section 801 are not intended to limit the Commission's discretion in the exercise of its authority related to public health and safety." This must mean that EPA's standards are minimum licensing requirements and that NRC is free to impose additional and more stringent requirements "in the exercise of its authority related to public health and safety." In fact, this is how both NRC and EPA have consistently interpreted the EnPA,¹ and 10 C.F.R Part 63 is chock-full of requirements (for example, 10 C.F.R. §§ 63.114, 115, 121, 131, 141 and 142) that go beyond what is needed for consistency with EPA's rule in 40 C.F.R. Part 197. DOE also interprets the EnPA to allow NRC to impose additional, more stringent requirements.²

¹ See 66 Fed. Reg. 32,074, 32,102 (June 13, 2001) (EPA states that "NRC may impose requirements that are 'more stringent' than the 'minimum requirements for implementation' that our rule establishes."); 66 Fed. Reg. 55,732, 55,749-55,750 (Nov. 2, 2001) (NRC judges the sufficiency of EPA standards).

² Transcript of April 1, 2009 oral argument before the CAB at 401 (response of Mr. Polansky).

Nevada's petitions invoke NRC's "discretion in the exercise of its authority related to public health and safety," as preserved by the EnPA, and they ask the NRC to impose additional safety requirements in the special circumstances of this case. Such additional requirements would be necessary and appropriate under Section 161b of the Atomic Energy Act, 42 U.S.C. § 2201(b), which authorizes the Commission to promulgate orders regarding possession and use of nuclear materials "as [it] may deem necessary or desirable to . . . protect health or to minimize danger to life or property," and Section 54c of the Atomic Energy Act, 42 U.S.C. § 2077(c), which prohibits issuance of a license if this would "constitute an unreasonable risk to the health and safety of the public." Both subsections are made applicable to Yucca Mountain by Section 114(d) of the Nuclear Waste Policy Act, as amended, 42 U.S.C. § 10134(d).

Nevada's petitions treat EPA's standards as minimum standards only, just as EPA intended them to be, and as NRC and DOE agree they should be read, and because EPA contemplates that the NRC may impose additional requirements, the petitions in no way constitute an attack on the EPA rule. The petitions also follow up on the Commission's invitation to file petitions under 10 C.F.R. § 2.335. The NRC's unexpected refusal in 2009 to consider the need for additional requirements, like it did in 2001, offers "fresh grounds" for both new contentions and waiver requests.

V. NEV-SAFETY-202 SHOULD BE ADMITTED AND, IF NECESSARY, CERTIFIED TO THE COMMISSION

A. Scope of the Proceeding (10 C.F.R. § 2.309(f)(1)(iii))

DOE concedes that Nevada's challenge to the specific deep percolation rates DOE used in its License Application is within the scope of the proceeding. However, DOE argues that the remainder of NEV-SAFETY-202 is outside scope (Answer at 8-11). This depends on whether Nevada or DOE offers the correct reading of the NRC final rule. As Nevada argues in its Reply to NRC Staff's Answer to NEV-SAFETY-202 and NEV-SAFETY-203, filed on July 3 (at 3-6), the NRC final rule requires that climate change FEPs included in the 10,000-year TSPA be included in the post-10,000-year TSPA as well. If Nevada is correct in its reading, then NEV-SAFETY-202 is within scope because it properly challenges DOE's compliance with an applicable NRC regulation.

Nevada agrees with DOE's position that "there is no ambiguity in the rule" (Answer at 8), but as explained in Nevada's Reply to NRC Staff's Answer to NEV-SAFETY-202 and NEV-SAFETY-203 (at 4-6), the unambiguous language in the NRC final rule supports Nevada's position that all FEPs included in the 10,000-year performance assessment (including climate change FEPs) must be included in the post-10,000-year assessment as well. DOE's discussion of 10 C.F.R. § 63.342(c)(2) (Answer at 8-9) ignores the key regulatory language in 10 C.F.R. § 63.342(c) that "[f]or performance assessments conducted to show compliance with §§ 63.311(a)(2) and 63.321(b)(2) [the post-10,000-year dose standards], DOE's performance assessments *shall* project the continued effects of the features, events, and processes included in paragraph (a) of this section [for the 10,000-year assessment] beyond the 10,000-year post-disposal period through the period of geologic stability" [emphasis added]. The next sentence emphasizes this point by stating that "DOE *must* evaluate *all* of the features, events, or processes

included in paragraph (a)," "and *also*" assess effects of seismic and igneous scenarios, climate change and corrosion [emphasis added].

Regulatory history cannot prevail over unambiguous rule language, but even if it could, DOE's analysis of regulatory history is unpersuasive. The key piece of the regulatory history of NRC final rule is the language of the EPA final rule being implemented. As Nevada points out in its Reply to NRC Staff's Answer to NEV-SAFETY-202 and NEV-SAFETY-203 (at 5-6), this EPA rule language supports Nevada's interpretation, not DOE's. It is true, as DOE says (Answer at 9), that "[f]or both agencies, the primary concern was the potentially unlimited scope of speculation on the topic of future climate." But this concern simply does not apply when climate change FEPs that are already defined and included in the 10,000-year performance assessment are simply extended to the post-10,000-year period. The obvious concern of both agencies was with the possible introduction of *new* climate change FEPs in the post-10,000-year performance assessment, not the simple extension of existing ones. As EPA aptly summarized its concern, "the search for *additional* FEPs that might be significant at some point beyond 10,000 years can rapidly become highly speculative and limited in benefit" [emphasis added] (73 Fed. Reg. 61,256, 61,283 (Oct. 15, 2008)).

B. Materiality (10 C.F.R. § 2.309(f)(1)(iv))

DOE here relies on its previous arguments (Answer at 12), and no additional Nevada response is required.

C. Supporting Facts and Expert Opinions (10 C.F.R. § 2.309(f)(1)(v))

DOE here argues that Nevada offers "no expert opinion or other information to connect the BIOCLIM Study to a purported need for a similar study at Yucca Mountain, citing *Crow*

Butte Resources, Inc. (License Renewal for In Situ Leach Facility), CLI-09-09, 69 NRC ____ (2009) ("*Crow Butte*") (Answer at 12-13).

The wetlands contention rejected in *Crow Butte* alleged that the licensee failed to include the economic value of restoring wetlands in the no-action alternative, but there were no wetlands in the project area and petitioners offered no support for the proposition that wetlands had been or would be affected by licensed operations. *Crow Butte* at 32-33. The rejected arsenic effects contention alleged that the licensee failed to consider the off-site health effects of arsenic, but supplied no facts or expert opinion to support the proposition that that there would be arsenic contamination outside of the operations area. *Crow Butte* at 41. Moreover, assuming some off-site arsenic releases, petitioners failed to show exposures sufficient to produce health effects, failed to rule out other causes, and used unsupported arguments of counsel. *Crow Butte* at 42. It is apparent that there were fundamental, logical gaps in the expert support provided for the two contentions rejected in *Crow Butte*.

In contrast, NEV-SAFETY-202 has no such gaps. The BIOCLIM study itself obviously includes no discussion of Yucca Mountain, but the contention explains its direct relevance to Yucca Mountain (at 6-7), and BIOCLIM's relevance is also explained in admitted contention NEV-SAFETY-009 (at 94), which is referenced in NEV-SAFETY-202 (at 6) and is supported fully by expert affidavits. It would be inconsistent to reject NEV-SAFETY-202 but admit NEV-SAFETY-009. As NEV-SAFETY-202 carefully explains, in the period beyond 10,000 years, climatic conditions at Yucca Mountain will be determined by complex, changing interactions among isolation changes driven by changes in the orbital characteristics of the Earth, which have characteristic timescales of between 21,000 and 400,000 years, natural variations in greenhouse-gas concentrations in the atmosphere, the slow reduction in greenhouse-gas concentrations

resulting from human activities over the last few centuries and continuing at the present day, and internal variability within the climate system at sub-orbital timescales. BIOCLIM studies these effects for Europe, and Nevada uses BIOCLIM not to prove particular climate changes at Yucca Mountain, but to show that such studies are considered necessary and can be accomplished and that the License Application is deficient without them.³ Moreover, apart from BIOCLIM, the need for such studies is supported by the discussion in NEV-SAFETY-202 and in the discussion (and supporting affidavits) in NEV-SAFETY-009, 010, 011, and 012 (Petition at 94, 98-100, 103-104, and 108-111).

D. Material Dispute (10 C.F.R. § 2.309(f)(1)(vi))

DOE here relies on its previous arguments (Answer at 13-14), and no additional Nevada response is required.

E. Waiver Request

(1) DOE argument (Answer at 14) that Nevada's waiver request impermissibly challenges the EPA rule is wrong for the reasons given above. DOE's argument (Answer at 14) that the certification requested in NEV-SAFETY-202 would be wasteful in light of Nevada's pending judicial challenges to the NRC and EPA rules is unsupported. DOE does not and cannot argue that the pending challenges have any preclusive effect under principles of *res judicata* or *collateral estoppel* because the cases are still pending, and indeed, the issues for review are not even fully framed.⁴

³ Thus, DOE's reference (Answer at 13) to Nevada's Reply to DOE's Answer to NEV-SAFETY-009 (at 118) is irrelevant. Nevada does not claim that BIOCLIM's conclusions can be applied directly to Yucca Mountain, but claims (with adequate support) that comparable studies must be done.

⁴ As indicated *infra* in section VI.B.(3), it is possible that the NRC final rule only establishes minimum requirements, not sufficient ones. If this is so, then NEV-SAFETY-202 should be admitted as a contention under 10 C.F.R. § 2.309(f) without regard for 10 C.F.R. § 2.335 because NEV-SAFETY-202 does not challenge the necessity of any Commission regulation.

(2) DOE's argument (Answer at 15) that Nevada applies the wrong standard under 10 C.F.R. § 2.335 is incomprehensible. Nevada argues that a waiver would be appropriate if new scientific evidence shows that NRC's deep percolation rates no longer provide a reasonable basis for demonstrating compliance with EPA's dose standards. DOE does not explain why this formulation would necessarily lead to a defective *prima facie* case under 10 C.F.R. § 2.335 or why "new scientific evidence that undermines the [NRC] rulemaking" cannot be the essential premise for a proper § 2.335 petition. Moreover, the quotation from the NRC final rule preamble is more easily read to state that "new scientific evidence," showing that NRC's deep percolation rate "no longer provides a reasonable basis for demonstrating compliance," can be the basis for a waiver and "in addition" be the basis for a rulemaking petition.⁵

(3) DOE argues that Nevada does not correctly articulate the purposes of the NRC rule (Answer at 16-17). Nevada argues that the purpose of 10 C.F.R. § 63.342(c) was to "specify which FEPs must be included in the performance assessment in order to assure that the results of the assessment would contribute meaningfully to the safety finding," while DOE claims that a purpose was to "specify a reasonable basis for evaluating safety using current knowledge." But because 10 C.F.R. § 63.342(c) specifies FEPs that must be included in the post-10,000 year performance assessment, it is self-evident that a specific purpose of the subsection must be just that—to specify which FEPs must be included in the performance assessment, and surely one of the purpose of the subsection must then also be assure that the specified climate change FEPs would contribute meaningfully to the required safety finding.

In any event, DOE does not and cannot explain why there is any significant difference in the two formulations of the subsection's purpose. Climate change FEPs that are necessary and

⁵ This unusual dual track arises from the nature of 10 C.F.R. Part 63, which applies to only one adjudicatory proceeding. Ordinarily, special circumstances applicable to one adjudication would be the proper subject of a waiver petition, while more general concerns would be the proper subject of a rulemaking petition.

appropriate in order "to assure that the results of the assessment contribute meaningfully to the required safety finding" would also "specify a reasonable basis for evaluating safety using current knowledge."

(4) Like NRC Staff, DOE challenges the sufficiency of Nevada's affidavits (Answer at 17-18). Nevada replied to these arguments in its Reply to NRC Staff's Answer, filed on July 3, 2009. While 10 C.F.R. § 2.335 requires a waiver petition to include or reference an affidavit, it does not require that the affidavit specifically reference the petition. There is no logical reason why a proper and sufficient petition cannot rely on an affidavit that was prepared earlier for another purpose, provided the affidavit contents are sufficient. Under 10 C.F.R. § 2.335(b), an affidavit is sufficient if it "identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted" and "state[s] with particularity the special circumstances alleged to justify the waiver. . . ."

Here the relevant and specific "aspect of the subject matter of the proceeding" is "the inclusion of appropriate FEPs in the performance assessment" (NEV-SAFETY-202 at 7) or, more specifically, "the failure to consider greenhouse gas forcing functions" (NEV-SAFETY-009 at 94, adopted in expert affidavits).⁶ FEPs include "processes," "processes" indisputably include climate change (*see* 10 C.F.R. § 63.342(c)), and paragraphs 5 of NEV-SAFETY-009 through 012 (appropriately incorporated into affidavits) all discuss how climate change processes (FEPs) have not been appropriately included in the performance assessment. The relevant studies and evaluations are also included, discussed and referenced in these same paragraphs,

⁶ Nevada's Reply to NRC Staff's Answer, filed on July 3, 2009, inadvertently failed to include this cite to NEV-SAFETY-009 for "aspects of the subject matter of the proceeding."

including BIOCLIM, 2004 (*see* paragraph 5 of NEV-SAFETY- 009, Petition at 94). These are the "special circumstances."

There is no need for the affidavits to designate the failure to consider greenhouse gas forcing functions as an "aspect of the subject matter of the proceeding" or to designate the cited studies and expert analyses as "special circumstances" so long as that is, in fact, what they constitute. What is included in the "subject matter of the proceeding" and whether a body of scientific evidence may constitute "special circumstances" are legal issues, not technical ones, because they require detailed legal knowledge of NRC's adjudicatory and rulemaking processes.

Tying it all together into a persuasive waiver petition is the stuff of legal argument, and legal argument does not need to be supported by an affidavit. *See U.S. Department of Energy (High Level Waste Repository)*, CLI-09-14, 69 NRC ___ (2009) at 13 ("We agree . . . with the Board's view in this proceeding that requiring a petitioner . . . to provide an affidavit that sets out the 'factual and/or technical bases' under section 51.109(a)(2) in support of a *legal* contention – as opposed to a *factual* contention – is not necessary") (emphasis in original).

(5) Finally, DOE argues that no special circumstances exist (Answer at 19). This portion of DOE's Answer repeats some of its arguments about the sufficiency of Nevada's affidavits and then incorporates some arguments of NRC Staff. The affidavit arguments are addressed above, and Staff's arguments are addressed in Nevada's Reply to NRC Staff's Answer, filed on July 3, 2009 (at 7-11).

VI. NEV-SAFETY-203 SHOULD BE CERTIFIED TO THE COMMISSION

A. Scope of the Proceeding, Materiality, Supporting Facts and Opinions, and Genuine Dispute (10 C.F.R. § 2.309(f)(1)(iii), (iv), (v), and (vi))

DOE argues that NEV-SAFETY-203 is beyond scope because NRC lacks authority to impose requirements in addition to those in the EPA rule, including a requirement to include an additional FEP in the TSPA (Answer at 21). DOE is wrong that NRC lacks such authority for the reasons given above. In addition, as noted above, DOE's position is contrary to its position before the CAB.

The remainder of DOE's arguments addressing materiality, supporting facts and opinions, and genuine dispute either rely on DOE's incorrect scope argument, addressed above, or rely on its incorrect argument addressing Nevada's waiver request, addressed below.

B. Waiver Request

(1) Initially, DOE repeats its arguments about NRC's lack of authority and the pendency of Nevada's judicial challenges to the NRC final rule and the EPA rule (Answer at 22). These arguments are wrong for the reasons given above.

(2) DOE then repeats its argument about how Nevada has applied the wrong standard under 10 C.F.R. § 2.335 (Answer at 22). This argument is also wrong for reasons given above.

(3) Next, DOE argues that Nevada does not correctly articulate the purposes of the NRC and EPA rules (Answer at 23). The gist of DOE's argument is that the only purpose of the NRC rule is to achieve consistency with the EPA rule, and Nevada's waiver petition does not show how a waiver is needed either for consistency or to achieve the purposes of the EPA rule. However, as explained below, the premise of DOE's argument – that the only purpose of the NRC rule is to achieve consistency with the EPA rule – is incorrect.

The EnPA obligated NRC to conduct a rulemaking to make 10 C.F.R. Part 63 "consistent with" the EPA rule, but as explained above, NRC also may (and in this case must) impose additional, more stringent requirements, including a requirement to account for additional FEPs, in the TSPA. Nevada's waiver petition asks the Commission to exercise this authority because it must do so in order to assure that the suite of FEP requirements applicable to DOE's application "protect[s] health," "minimize[s] danger to life or property" and prevents "an unreasonable risk to the health and safety of the public," as provided in Sections 161b and 54c of the Atomic Energy Act, 42 U.S.C. §§ 2201(b) and 2077(c). Nevada challenges the Commission's apparent judgment, in its final rule, that there would be no unreasonable risk to the public health and safety if FEPs in the post-10,000-year performance assessment were limited to those that were included in the 10,000-year assessment plus the particular FEPs described in 10 C.F.R. § 2.342(c)(1) through (3).

In its final rule, the Commission does indicate that the focus of the rulemaking was on implementing the EPA rule, and the Commission rebuffed efforts by participants in the rulemaking to have the Commission judge the sufficiency of the EPA standards, as the Commission did in 2001.⁷ But in addressing comments criticizing the sufficiency of NRC rules that did nothing more than implement EPA's standards, the Commission repeatedly (three times) responded that petitions under 10 C.F.R. § 2.335 could be filed if it could be shown that the NRC rule is "based on outdated scientific evidence" or does not provide "a reasonable basis for demonstrating compliance based on new scientific evidence."⁸ In inviting such petitions, the Commission must have contemplated that its final rule (and 10 C.F.R. Part 63) served a larger

⁷ See 74 Fed. Reg. 10,811 at 10,816 ("the narrow scope of NRC's rulemaking only required potential commenters to focus on two technical issues beyond the issues involved in EPA's proposal. . . ."), 10,816 n.3, 10,818, and 10,824 (Mar. 13, 2009).

⁸ See 74 Fed. Reg. 10,811 at 10,816 n.3, 10,818, 10,824 (Mar. 13, 2009).

purpose than just implementing EPA's standards, because otherwise such petitions would have been impossible to frame under 10 C.F.R. § 2.335. Such a larger purpose is easy to infer based on decades of NRC licensing practice. The Commission always strives to promulgate bodies of rules for licensing one or more classes of materials or facilities that, if satisfied, would assuredly provide adequate protection of the public health and safety and avoid unreasonable risk.⁹ The Commission does not promulgate parts in the Code of Federal Regulations that it knows will not be sufficient to protect public health and safety. If it did so, its regulatory program would be utterly inadequate, wildly unpredictable, and completely unstable.

Consistent with the above regulatory philosophy, when it promulgated 10 C.F.R. Part 63 in 2001, the Commission stated that it was "publishing licensing criteria" for Yucca Mountain that would "establish a coherent body of risk-informed, performance-based criteria."¹⁰ Accordingly, the larger (and overriding) purpose of 10 C.F.R. Part 63, and the 2009 final rule, must be the establishment of a suite of regulatory requirements that, if satisfied, are sufficient to avoid an unreasonable risk to the health and safety of the public," as required by (among other provisions) Section 54c of the Atomic Energy Act, 42 U.S.C. § 2077 (c). Petitions under 10 C.F.R. § 2.335 (such as the petition in NEV-SAFETY-203) may address whether this purpose is served, provided they focus more specifically on particular aspects (such as assuring an adequate consideration of FEPs) and describe special circumstances.

If, however, it was not the purpose of the final rule to establish requirements that would be sufficient to avoid an unreasonable risk, then it follows that the final rule imposes minimum requirements only. Put another way, the final rule would then establish necessary requirements,

⁹ See, e.g., 53 Fed. Reg. 20,603 at 20,606 (June 6, 1988) ("As the Commission has said on many occasions, compliance with the Commission's regulations and guidance 'should provide a level of safety sufficient for adequate protection of the public health and safety and common defense and security under the Atomic Energy Act.'")

¹⁰ See 66 Fed. Reg. 55,732 (Nov. 2, 2001).

not sufficient ones. If this is so, then neither NEV-SAFETY-203 nor NEV-SAFETY-202 constitutes any challenge to the Commission's regulations within the meaning of 10 C.F.R. § 2.335 because neither contention quarrels with the necessity of any Commission regulatory requirement. DOE's (and NRC Staff's) arguments about the sufficiency of Nevada's petitions under 10 C.F.R. § 2.335 are then completely irrelevant, and both NEV-SAFETY-202 and NEV-SAFETY-203 should be admitted as contentions under 10 C.F.R. § 2.309(f), without regard for 10 C.F.R. § 2.335.

(4) DOE challenges the sufficiency of Nevada's affidavits (Answer at 24-25). These challenges are identical to DOE's challenges to the affidavits supporting NEV-SAFETY-202. While 10 C.F.R. § 2.335 requires a waiver petition to include or reference an affidavit, it does not require that the affidavit specifically reference the petition. There is no logical reason why a proper and sufficient petition cannot rely on an affidavit that was prepared for another purpose, for example, the affidavits supporting paragraph 5 of NEV-SAFETY-041 referenced in NEV-SAFETY-203, provided the affidavit contents are sufficient.

Under 10 C.F.R. § 2.335(b), an affidavit is sufficient if it "identifies the specific aspect or aspects of the subject matter of the proceeding as to which the application of the rule or regulation (or provision of it) would not serve the purposes for which the rule or regulation was adopted" and "state[s] with particularity the special circumstances alleged to justify the waiver. . . ." Here the relevant and specific "aspect of the subject matter of the proceeding" is "the inclusion of appropriate FEPs in the performance assessment" (NEV-SAFETY-203 at 13) or, more specifically, the fact that "[t]he LA excludes land-surface erosion as an FEP, claiming that it is of no significance" (NEV-SAFETY-041 at 240, adopted in expert affidavits). The erosion processes described in paragraph 5 of NEV-SAFETY-041 (at 240-242, adopted in expert

affidavits) set forth the special circumstances. If the credible possibility, if not likelihood, that Yucca Mountain would erode to the level of the repository drifts is not a special circumstance suggesting the existence of a significant safety problem, completely unaddressed by the final rule, then 10 C.F.R. § 2.335 has no meaning.

There is no need for the affidavits to designate the fact that "[t]he LA excludes land-surface erosion as an FEP, claiming that it is of no significance" as an "aspect of the subject matter of the proceeding," or to designate these erosion processes as "special circumstances," so long as that is, in fact, what they constitute. What is included in the "subject matter of the proceeding" and whether a body of scientific evidence may constitute "special circumstances" are legal issues, not technical ones, because they require detailed legal knowledge of NRC's adjudicatory and rulemaking processes.

Tying it all together into a persuasive waiver petition is the stuff of legal argument, and as explained above, legal argument does not need to be supported by an affidavit.

(5) Finally, DOE says no special circumstances exist (Answer at 25-26). DOE relies here on NRC Staff's Answer to NEV-SAFETY-203 (at 16-17, and related affidavits). Nevada responded to Staff's arguments in its Reply to NRC Staff's Answer, filed on July 3, 2009, at 15-17.

VII. CONCLUSION

NEV-SAFETY-202 should be fully admitted, but if the NRC rule must be interpreted to exclude it, the matter should be certified to the Commission pursuant to 10 C.F.R. § 2.335. NEV-SAFETY-203 should be certified to the Commission under 10 C.F.R. § 2.335, as requested.

Respectfully submitted,

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Dated: July 16, 2009

**UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION**

Atomic Safety and Licensing Board

In the Matter of)	
)	
U.S. DEPARTMENT OF ENERGY)	Docket No. 63-001-HLW
)	
(High Level Waste Repository))	July 16, 2009

CERTIFICATE OF SERVICE

I hereby certify that the foregoing State of Nevada's Reply to DOE's Answer to NEV-SAFETY-202 and 203 has been served upon the following persons by the Electronic Information Exchange:

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