

November 9, 2007

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE PRE-LICENSE APPLICATION PRESIDING OFFICER BOARD

In the Matter of)	Docket No. PAPO-00
)	
U.S. DEPARTMENT OF ENERGY)	ASLBP No. 04-829-01-PAPO
)	
(High Level Waste Repository:)	
Pre-Application Matters))	

THE DEPARTMENT OF ENERGY'S
RESPONSE TO THE STATE OF NEVADA'S MOTION TO STRIKE
DOE'S OCTOBER 19, 2007 LSN RECERTIFICATION
AND TO SUSPEND CERTIFICATION OBLIGATIONS OF OTHERS
UNTIL DOE VALIDLY RECERTIFIES

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Pursuant to 10 CFR § 2.323, the U.S. Department of Energy (DOE) responds to the State of Nevada's "Motion to Strike DOE's October 19, 2007 LSN Recertification and to Suspend Certification Obligations of Others Until DOE Validly Recertifies" (Nevada's Motion), filed October 30, 2007. For the reasons set forth below, the Board should deny Nevada's motion.¹

PRELIMINARY STATEMENT

DOE has fully complied with the Licensing Support Network (LSN) requirements. As required by those regulations, DOE has implemented procedures to identify potential documentary material and make it available on the LSN. DOE has also implemented training on those procedures for federal and contractor staff working on the Yucca Mountain Project. Over the past three years, DOE has completed everything required by the Orders of this Board. This has involved the collection and review of its existing documents, including the 10 million unique emails on the back-up tapes for the DOE Office of Civilian Radioactive Waste Management (OCRWM) email system. In addition, DOE has completed manual reviews of each document subject to a privilege claim in its LSN collection to verify the privilege and additionally has provided redacted versions of these documents on the LSN as appropriate. DOE has also worked with the LSN Administrator to ensure that its existing documentary material has been indexed and made publicly available on the NRC's LSN portal (as opposed to merely residing in DOE's LSN server). DOE is continuing to take actions to ensure that additional documentary material as it is generated is timely processed and made available on the LSN.

In its LSN collection, DOE has made available approximately 3.5 million documents that altogether consist of more than 30 million pages. About 1.3 million of these documents have

¹ Although the 10-day period for challenging DOE's initial certification expired October 29, 2007, Nevada advised DOE that it encountered technical difficulties filing its motion on the Electronic Information Exchange that day and requested DOE's consent to file the next day. DOE consented, making DOE's response due November 9, 2007.

been available on the LSN since 2004. Another 2.1 million have been available since May, 2007, and new documents have been added regularly since that date.

The Commission established the LSN as a substitute for traditional document discovery. It is intended to provide for document production during the pre-license application phase to avoid the time-consuming process of document discovery during the licensing proceeding.² Through DOE's extensive production to date and through seasonable supplementation of its production with new documentary material as it is created, DOE has fulfilled that objective with respect to its documents.

DOE's extensive production also permits Nevada and all other potential participants to frame meaningful contentions, and Nevada cannot argue otherwise. Nevada told this Board two years ago that it had already begun drafting contentions.³ Nevada said at the time that it expected to have several hundred contentions.⁴ More recently, Nevada has declared that it expects to file "thousands" of contentions.⁵

Nevada has been drafting those contentions based on its review of the millions of documents DOE has made available on the LSN. According to Nevada, it assembled a special team of lawyers and experts in 2001 to prepare for the Yucca Mountain licensing proceeding.

² 68 F.R. 66372, 66372 (November 26, 2003).

³ Tr. at 400 (statement of Charles Fitzpatrick).

⁴ Tr. at 402 (statement of Joseph Egan).

⁵ Statement of Robert Loux, Executive Director of Nevada Agency for Nuclear Projects, in S. Tetreault, "Documents Added to Yucca Database," *Las Vegas Review Journal* (May 1, 2007) (Exhibit A hereto).

Nevada's team "has been performing a thorough evaluation of the scientific and legal integrity of the work done by DOE and its contractors at Yucca" since that time.⁶

As part of their "review of the technical record for the project," Nevada's lawyers and experts "have been combing DOE's electronic database," *i.e.*, the documents DOE has made available on the LSN.⁷ When DOE made available 2.1 million additional documents earlier this year, Nevada announced that its science consultants were dividing those documents among them so the documents could be "critiqued for information that could become part of the State's case against the project."⁸

Significantly, Nevada does not take issue with the sufficiency of DOE's production of existing documents, but complains instead about the absence of documents that do not yet exist in final form. But even now, with what is effectively Nevada's third brief on the topic, Nevada cannot identify the regulation that prohibits DOE's initial certification without those documents.

Nevada variously and inconsistently alternated in its original motion for declaratory relief between arguing that DOE cannot certify until it makes available on the LSN, on the one hand, all work product DOE "knows or expects to cite or rely on in the *Yucca licensing proceeding*" versus, on the other hand, the material DOE expects "to rely on in the *license application*."⁹ Nevada retreated from those positions in its supplement to that motion. It argued there that it does not ask DOE "to stop producing documents," that "reasonable compliance" is sufficient,

⁶ Statement of Joseph Egan before the House Subcommittee on the Federal Workforce and Agency Organization (April 5, 2005) at 1 (Exhibit B hereto).

⁷ *Id.* at 3.

⁸ Exhibit A at 1.

⁹ State of Nevada's Motion for Declaratory Ruling to Define and to Compel Compliance by DOE with 10 CFR § 2.1003(a) (filed July 23, 2007).

and that DOE can certify as long as a “substantially complete set” of documents is available, which seemingly would permit certification before all of DOE’s supporting information is completed.¹⁰

Nevada’s current motion changes its theory again and makes no mention of “reasonable compliance” and a “substantially complete set” of documents. Nevada instead reverts to the formulation of its original motion including its inconsistencies. That inconsistency appears even in the one-page “Summary of Nevada’s Position” from its current motion. Nevada simultaneously advocates there that initial certification requires the availability of, on the one hand, all material to be cited and relied on in the “licensing proceeding” and, on the other, all material to be cited and relied on in the “LA.”¹¹

Nevada’s current motion additionally injects a novel formulation for DOE’s initial certification obligation that was absent from its prior papers—the production of all “core technical documents and modeling basis Documentary Material.” Those terms do not appear in Subpart J, and Nevada does not define them either other than to mention that they include documents “like”—but seemingly not limited to—the Total System Performance Assessment (TSPA) and other Analysis Model Reports (AMR).¹² Nevada does not explain the criteria for determining what constitutes a “core technical document” or what comprises “modeling basis Documentary Material.”

Nevada has even reversed course on its view whether DOE must stop producing supporting material six months before License Application (LA) submittal. This summer

¹⁰ State of Nevada’s Reply to the Responses to Nevada’s Motion for a Declaratory Order (filed August 9, 2007).

¹¹ Nevada Motion at 4.

¹² Nevada Motion at 20.

Nevada said that is not what it asks. In its current motion, however, Nevada says DOE must complete all the material to be cited in the LA, make that material available on the LSN, and then wait “at least” 6 months.¹³

Nevada’s inability to cogently and consistently articulate what it contends ought to be the controlling standard for DOE’s initial certification illuminates the baseless nature of its request. If the standard Nevada seeks was found in the LSN regulations, Nevada would not need to struggle to articulate that standard. Nevada could simply point to the regulatory text and say: “there it is.”

The practical reality is that DOE’s LSN collection contains numerous documents intended to be cited or relied on in the LA as well as extensive underlying calculations, data, and other material on which those documents are based. The limited amount of remaining material will promptly be made available on the LSN when completed, and Nevada and all other potential participants will have an ample opportunity to review it. The NRC Staff has made clear that it will take the time it needs prior to docketing to thoroughly review the LA and supporting information. The Staff will not docket the LA until it is satisfied about the results of that review. This provides practical assurance that all remaining work prepared for the LA will be available on the LSN in time for Nevada to adequately review it well before Nevada is required to file contentions.

As discussed in detail below, the LSN regulations impose no requirement that DOE complete a particular document or amount of work before its initial certification. The certification required by 10 CFR § 2.1009(b) is a participant’s attestation that it has implemented procedures to enable it to meet its LSN obligations, not just in the present but going forward as

¹³ Nevada Motion at 18.

well. Further, it is an attestation that the participant has implemented training of its personnel in order to enable the participant to meet and to continue to meet its LSN obligations. And, it is an attestation that the participant has made available its existing documentary material (to the extent it can be reasonably identified in the pre-license application phase before contentions) and that it will continue to seasonably supplement its production with additional documentary material that is thereafter created or identified.¹⁴ Importantly, § 2.1009(b) contains no requirement that DOE additionally attest as part of its initial certification that it has completed its supporting documentary material.

Nevada's motion should be seen for what it is—a bid to delay the licensing proceeding for delay's sake. DOE made its initial LSN certification now because it has completed the tasks required by the LSN regulations and this Board. The NRC Staff has previously made its certification as have several Affected Units of Local Government. Nevada seeks to delay these proceedings by recasting the LSN regulations to impose a condition on DOE's initial certification that does not exist on the face of those regulations. The Board should reject Nevada's plea to rewrite the regulations and deny Nevada's motion.

ARGUMENT¹⁵

I. THE LSN REGULATIONS DEFEAT NEVADA'S MOTION

In its 2006 decision rejecting Nevada's motion to compel production of the draft LA onto the LSN, the Commission set forth two cardinal principles that control the interpretation of Subpart J.¹⁶

¹⁴ 10 CFR § 2.1009(b).

¹⁵ Nevada asserts in a footnote that DOE's certification form is facially deficient. Nevada Motion at 18, n 4. Nevada's facial challenge just repeats its argument that DOE cannot make an initial certification without all the "core technical documents and modeling basis" to be cited in the license application, and does not raise any independent arguments.

The Commission first explained that the interpretation of a Subpart J regulation, “like the interpretation of a statute, begins with the language and structure of the provision itself. Further, the entirety of the provision must be given effect. Although administrative history and other available guidance may be consulted for background information and the resolution of ambiguities in a regulation’s language, its interpretation may not conflict with the plain meaning of the wording used in that regulation.”¹⁷

In other words, the Commission’s first principle is that the LSN regulations must be applied as written. They cannot be added to or embellished, or new requirements and conditions imposed, even if those modifications are thought to advance the regulations’ goals and make them “better.” Similarly, the regulatory text must be applied as written without regard to regulatory guides, statements by parties, and the other extraneous material Nevada points to in lieu of the regulatory text.

The second cardinal principle that the Commission articulated was that the Commission expresses its intent in plain English. When the Commission intends a specific result in its regulations, it conveys that intent in an express regulatory requirement. The Commission does not leave the existence of important requirements to guesswork or to interpolation.¹⁸

These principles compel rejection of Nevada’s motion. The plain text of Subpart J simply does not impose any requirement on DOE’s initial certification of the kind Nevada advocates.

¹⁶ CLI-06-05, 2006 NRC LEXIS 32 (2006).

¹⁷ *Id.* at *21-22, citing *Long Island Lighting Company* (Shoreham Nuclear Power Station, Unit 1), ALAB-900, 28 NRC 275, 288 (1988), review denied, CLI-88-11, 28 NRC 603 (1988).

¹⁸ *Id.* at *28.

A. The Plain Language of § 2.1003(a) Defeats Nevada’s Motion

The particular regulatory text that Nevada seeks to interpret is § 2.1003(a)(1). That regulation provides, subject to certain exclusions not material here, that:

DOE shall make available, no later than six months in advance of submitting its license application for a geologic repository...[a]n electronic file including bibliographic header for all documentary material (including circulated drafts but excluding preliminary drafts) **generated by, or at the direction of, or acquired by [DOE].**¹⁹

The operative language of this provision is the phrase “generated by...or acquired by.” This phrase defines and limits the scope of documentary material that DOE must make available in conjunction with its initial certification. Couched in the past tense, that phrase plainly and unambiguously means that DOE must make available at the time of its initial certification the documentary material it has generated or acquired as of some reasonable period of time before certification.²⁰ There is no language in that provision that mandates that DOE must have generated or acquired by the time of initial certification all the documentary material it “knows or expects it will cite or rely on” in the LA, much less the licensing proceeding. Such a construction improperly would add language to § 2.1003(a)(1) that does not appear on the face of the regulation, in violation of the Commission’s cardinal principles.

The other subsections of § 2.1003(a) do not impose the requirement Nevada seeks either. Subsection (2) addresses “graphic-oriented” documentary material, *i.e.*, documentary material

¹⁹ 10 CFR § 2.1003(a)(1) (emphasis added).

²⁰ As the Board has recognized, it is not possible to capture literally all documents in existence as of the certification date, especially with an organization as large as DOE’s, and thus a reasonable cutoff may be needed for documents created shortly before a participant’s certification date. LBP-04-20, 60 NRC _ (2004) at 32 (“In assessing the gap document situation, we accept the proposition that, when a document production occurs in the midst of a large and ongoing project, those documents that are created after a reasonable cut-off date might not be included in the initial document production.”). Statements in this response regarding extant documents at the time of certification are all subject to this qualification.

that is not merely text capable of production in a text-searchable electronic file. Subsection (2) specifies that, for graphic-oriented documentary material, it is sufficient for a participant to make available an electronic image format of the document along with a bibliographic header. The subsection also lists examples of graphic-oriented documentary material.

Nothing in these provisions compels DOE to have completed by the time of its initial certification all graphic-oriented documentary material that is to be cited or relied on in the LA or in the licensing proceeding. To the contrary, § 2.1003(a)(2) refers to graphic-oriented documentary materials “which *have been* printed, scripted, or hand written.”²¹ Phrased in the past tense like the terms “generated” and “acquired” in subsection (a)(1), these terms merely reference graphic-oriented material in existence as of DOE’s certification. They do not require additionally that the graphic-oriented material “printed, scripted, or hand written” at the time of certification must comprise all that DOE plans to cite or rely upon.

The remaining two subsections of § 2.1003(a) also are silent about the status of DOE’s supporting documentary material at certification. Subsection (3) merely specifies that a participant is required to make available a bibliographic header only for material that cannot be produced in a text-searchable or image format. Section (4) additionally provides that a bibliographic header only needs to provide for privileged, confidential financial or commercial information, and safeguards material.

Viewed as a whole, therefore, § 2.1003(a) does not impose any substantive constraint on, or requirements respecting, the completeness of DOE’s supporting documentary material at initial certification. The introductory portion of § 2.1003(a) provides a basic schedule for initial certification and then specifies the type of electronic file that must accompany various classes of

²¹ 10 CFR § 2.1003(a)(2) (emphasis added).

documents, namely, searchable electronic files for non-privileged text documents (§ 2.1003(a)(1)); electronic images for graphic-oriented material (§ 2.1003(a)(2)); and bibliographic headers only for non-imageable and privileged material (§§ 2.1003(a)(3) & (4)). To read into § 2.1003(a) an additional requirement regarding the completeness of DOE's supporting documentary material at initial certification is to impose a requirement that the text and structure of the regulation do not support.

Nevada's motion ignores the entirety of § 2.1003(a) and does not even purport to ground its requested relief on specific regulatory text. Rather, Nevada exhorts application of the perceived policy behind those regulations. That is no substitute for regulatory analysis and application of the Commission's regulations as written, as another licensing board recently held:

[F]undamentally, I lack authority to adopt a "policy" that invalidates a Commission regulation. . . . In urging me to adopt an approach that is at odds with the governing regulations, the Intervenors essentially are attempting to use this proceeding to re-write those regulations. This they may not do. . . .²²

In the past, Nevada has argued that the phrase "all documentary material" that appears in § 2.1003(a)(1) compels completion of DOE's supporting material before DOE's initial certification. Nevada has wisely abandoned that argument because it fails to read § 2.1003(a) as a whole and fails to give effect to the entirety of that regulation's provisions, in contravention of settled principles of regulatory interpretation. When read as a whole, it is apparent that the term "generated . . . or acquired by the participant" as used in § 2.1003(a) modifies (and limits) the phrase "all documentary material" such that the only documentary material addressed by the regulation is that which the certifying participant has "generated" or "acquired" as of its certification.

²² *In re: Hydro Resources*, ALSB Docket No. 40-8968-ML, ASLBP No. 95-706-01-ML, 2006 NRC LEXIS 7, *34-36 (2006) (citations omitted).

Further, there is no basis to conclude that “all” is limited to just “supporting” documentary material. The term “all” encompasses all three classes of documentary material. Under Nevada’s reading, therefore, DOE and every other participant would have to have in hand a completed set of all three classes of documentary material. No other documentary material could be generated after certification. Nevada’s reading also would make superfluous the regulatory requirement for DOE to update its certification when it submits the LA as well as this Board’s Order to file monthly certifications.²³

B. The Overall Structure of Subpart J Defeats Nevada’s Motion

The overall structure of Subpart J supports the plain reading of § 2.1003(a) as well. There is no provision among the various regulatory provisions that comprise Subpart J that presumes that § 2.1003(a) means what Nevada contends or that makes sense only if that is the case. If the Commission intended that DOE must complete all its reliance material six months before submitting the LA, it is inconceivable that the Commission would have omitted such an important and unprecedented requirement and left its existence to inference, interpolation and guesswork. If the Commission had so intended, the Commission would have imposed that requirement unambiguously in direct terms somewhere in the otherwise comprehensive and detailed provisions of Subpart J.

Indeed, the other provisions actually contradict Nevada’s position that Subpart J imposes a “Six-Month Rule” that guarantees the participants six months pre-submittal review of everything to be cited or relied on in the LA. The LSN regulations provide that if DOE makes its initial certification less than 6 months before it submits the LA, the LA cannot be docketed until

²³ *In re Texas Utilities Company (Comanche Peak Steam Electric Station, Units 1 and 2)*, LBP-84-10, 1984 NRC LEXIS 150 at *10 (1984) (regulation sections are to be interpreted consonant with one another).

6 months after DOE's initial certification.²⁴ If the "Six-Month Rule" that Nevada advocates were true, this provision makes no sense. The Commission would have required delay in submittal of the LA, and not merely docketing, until there had been 6 months of pre-submittal review.²⁵

This motion thus presents a situation similar to that raised by Nevada's earlier motion to compel production of the draft LA.²⁶ There, Nevada advanced various policy arguments urging that access to the draft LA would make more meaningful the six-month period between DOE's initial certification and submittal of the LA and advance its preparation of contentions. Nevada labored to explain how such a production requirement could be implied in Subpart J. The Commission rejected Nevada's strained interpretations and declared that it would have used direct language to require production of the draft LA if that had been its intent: "If the Commission had intended to require separate LSN submission of parts of the LA, it would have stated that intention unambiguously, with no surplus language."²⁷

In contrast, the Commission promulgated the express supplementation requirement found in § 2.1003(e), which requires each "party" (including DOE)²⁸ to "continue to supplement its documentary material made available to other participants via the LSN with any additional

²⁴ 10 CFR § 2.1012(a).

²⁵ For another example where the Commission's statements contradict a guaranteed six-month review period prior to LA submittal, *see* 66 F.R. 29453, 29460 (May 31, 2001) ("the Commission notes that the pendency of a dispute contesting some aspect of the DOE initial certification would not be a reason to delay the NRC acceptance of the DOE license application.").

²⁶ Nevada's Motion to Compel Production of DOE's Draft Yucca Licensing Application, or in the alternative, for a Declaratory Order (June 6, 2005).

²⁷ CLI-06-05, 2006 NRC LEXIS 32, at *28.

²⁸ *See* 10 CFR § 2.001 (Definition of "Party").

material created after the time of its initial certification . . . until the discovery period in the proceeding has concluded.”²⁹ That regulation plainly contemplates that the parties, including DOE, can and will continue to create documentary material after their certifications pursuant to § 2.1003(a); that they will create additional documentary material during not only the balance of the pre-license application phase following their certifications but in the post-docketing phase as well; and that their obligation is merely to supplement their production to make available such additional documentary material.

In the same vein is the requirement in § 2.1009(b) for DOE to update its certification with additional documentary material when it submits the LA.³⁰ That supplementation requirement in the overall context of Subpart J is an acknowledgement that DOE is expected to continue to create documentary material pertinent to the LA after initial certification.

Nevada tries to dismiss the significance of § 2.1003(e) and § 2.1009(b) by suggesting that they are intended to capture additional “non-supporting” documentary material only. There is no support for such a narrow view of the supplementation provisions. There is no indication in Subpart J (or elsewhere) that the Commission had in mind the production of only non-supporting documentary material in connection with these supplementation requirements. Had that been the case, the Commission could and would have limited the scope of § 2.1003(e) and the update provision of § 2.1009(b) to non-supporting documentary material. That the Commission did not limit these supplementation requirements in that manner indicates that Nevada’s reading of these regulations is wrong.

²⁹ 10 CFR § 2.1003(e).

³⁰ 10 CFR § 2.1009(e).

The Commission also did not create certification requirements for all the other participants that are different than DOE's. Section 2.1003(a) applies not only to DOE, but also to "each other potential party, interested government participant or party."³¹ If § 2.1003(a) were interpreted to require DOE to complete all its expected supporting information by the time of certification, the same obligation would apply to Nevada, affected units of local government, Indian tribes, public interest groups and individuals—in short, to anyone who may seek to participate in the Yucca Mountain proceeding. That would mean Nevada and every potential participant would be required to complete within 90 days after DOE's initial certification all the information they know or expect they may use in the licensing proceeding.

There is nothing in the text, structure or logic of Subpart J that indicates that the Commission intended Nevada and all other potential participants to have completed their review of DOE's documentary material and have finished their opposing analyses within 90 days of DOE's certification. Since no such obligation exists on the face of § 2.1003(a) with respect to Nevada and the other potential participants, no such obligation can be read into § 2.1003(a) with respect to DOE.

II. THE RULEMAKING HISTORY DEFEATS NEVADA'S MOTION

Because § 2.1003(a) is plain and unambiguous, there is no need to resort to the rulemaking history. The regulation must be applied as written.³² Nevertheless, the rulemaking history corroborates the plain reading of § 2.1003(a).

³¹ 10 CFR § 2.1003(a).

³² CLI-06-05, 2006 NRC LEXIS 32 at *21-22.

A. The Commission's Statements of Intent Defeat Nevada's Motion

Although Nevada asserts a great deal about the intent behind § 2.1003(a), in fact the Commission's Statements of Consideration for Subpart J do not state that all material DOE intends to cite or rely on must be finished and available on the LSN before DOE makes its initial certification. The significance of this cannot be overstated. The Commission has issued many Statements of Consideration over the last 20 years. Those Statements are extensive and address in detail every aspect of Subpart J. It defies reason that the Commission would have been silent all those years about a requirement for DOE to complete its supporting material before initial certification if that were its intent.

This is especially true for the Statement of Consideration in 2001 when the Commission promulgated the current version of § 2.1003. The Commission acknowledged then that "development of the license application and supporting materials is an ongoing process."³³ The Commission also acknowledged DOE's view that initial certification six months before submitting the LA will "make it more likely that the material entered [on the LSN] will be more fully developed and current."³⁴ The terms "ongoing process," "more likely" and "more fully developed" are not synonymous with "finished" or "complete."

Had the Commission intended that all of DOE's supporting material must be complete at initial certification, the Commission surely would have expressed that intent at that time. As it is, the Commission related without objection the expectation that DOE's supporting material would not be complete at initial certification.

³³ 66 FR 29453, 29459 (May 31, 2001).

³⁴ *Id.*

The Commission went even further in the same rulemaking to expressly address the question: “When are documents created after the initial certification of compliance required to be made available?”³⁵ In answering the question, the Commission observed that DOE had noted in its comments on the proposed rule that “new information will continue to be produced during the period before it submits the license application.” Again, the Commission did not criticize this observation or state that DOE’s continued generation of information after its initial certification was antithetical to § 2.1003. Rather, the Commission stated merely: “Documentary material created after the initial certification of compliance is expected to be made available reasonably contemporaneous with its creation, rather than stored for entry as a group at some point during the remaining time before DOE submits the license application.”³⁶

Had the Commission intended what Nevada now advocates, the Commission surely would have said something in this Q&A to express that view. It would have disagreed with DOE’s comment and remarked that DOE’s “new information” after initial certification was not expected to be supporting information. It did not, and notably stated instead that DOE should make the new documentary material available on a rolling basis as DOE created it and not wait until its supplemental certification when submitting the LA.

The Commission reiterated that view in 2003 and 2004 when it promulgated the supplementation requirement of § 2.1003(e). In proposing that rule, the Commission made the following statement that recognized that the participants would continue to create documentary material after their initial certifications:

Proposed § 2.1003(e) would require LSN participants to supplement the documentary material provided under § 2.1003(a)

³⁵ *Id.* at 29460.

³⁶ *Id.*

in its initial certification with documentary material produced after that event. While *much* of an LSN participant's documentary material will be made available early, *it is reasonable to expect that additional material will be created after the initial compliance period specified in § 2.1003(a).*³⁷

The Commission made the same observation in its notice of final rulemaking.³⁸

“Much” does not equal “all.” Further, the Commission did not differentiate DOE from the other participants and require DOE, unlike all the other participants, to have all of its supporting documentary material completed at initial certification. The Commission's language instead clearly contemplates that while “much” of DOE's documentary material is expected to be available at initial certification, not all of it would be complete by that time. Nor did the Commission's language limit the types of documentary material whose post-certification creation was acceptable (*e.g.*, as Nevada contends, non-supporting information). Rather, documentary material could be created by any party and added to its LSN collection after initial certification, as long as that addition was seasonable.

Significantly, Nevada did not object to § 2.1003(e), propose that DOE be carved out of its scope and treated differently, or otherwise complain that the Commission's statements were at odds with § 2.1003(a). Indeed, DOE is unaware of any comment by Nevada in conjunction with the rulemakings in 2000/2001 and 2003/2004 to the effect that DOE must complete its supporting documentary material before its initial certification, and Nevada has never cited to any such statement in any of its three filings on this issue. Nevada instead acquiesced in the

³⁷ 68 FR 66372, 66375 (November 26, 2003) (emphasis added).

³⁸ 69 FR 32836, 32843 (June 14, 2004).

Commission's statements of consideration in the two rulemakings regarding the certification requirement.³⁹

Nevada omits all discussion of these expressions of intent by the Commission that contradict its argument and cites a statement from 2004 that generally refers to the potential parties submitting their documentary material "prior to the submission of the DOE application."⁴⁰ This statement does not support Nevada as it facially does not concern DOE's initial certification requirement. Nevada does not merely want completion of DOE's production prior to LA submittal, but six months earlier.

Nevada also cites an isolated statement from a public informational meeting conducted by the NRC Staff.⁴¹ The sentence singled out by Nevada is not a statement by the Commission or even by a single Commissioner, but rather by a NRC Staff member (although Nevada tries to obscure that distinction by attributing the quotation to the "NRC"). The meeting's purpose was not to discuss the scope of DOE's document production obligation at initial certification, but the schedule for participation in the licensing proceeding. That off-hand, isolated statement can be given no force and certainly provides no basis to add new requirements into Subpart J.

B. The Rationale Behind Adoption of the Initial Certification Requirement Defeats Nevada's Motion

The rationale behind incorporation of an initial certification requirement into § 2.1003(a) does not support Nevada's motion either. The purpose of that requirement was not conceived as a deadline for completion of DOE's documentary material, but as a means to alleviate the burdens on DOE and potential participants of document production on the LSN.

³⁹ *E.g.*, January 9, 2004 letter from R. Loux to NRC (Exhibit C hereto).

⁴⁰ 69 F.R. 32836, 32843 (June 14, 2004), cited at Nevada Motion at 9.

⁴¹ Nevada Motion at 7; Nevada Motion Ex. 5.

More specifically, the LSN regulations originally required DOE and NRC to make documentary material available beginning 30 days after DOE's submission of its site recommendation to the President, and the other participants were required to begin their productions no later than 30 days after the site selection became final after review by Congress. These regulations required the participants to make LSN certifications but did not specify when those certifications should be made. The Commission thus proposed in 2000 to require certifications at the time of a participant's initial production to the LSN of their documentary material on the then existing schedule tied to site recommendation and selection.⁴²

In its comments on the rulemaking, Nevada proposed to alter the time for both the availability of documentary material and certification. Nevada wanted to delay both the date participants had to begin making documents available and the date for their initial certifications, and to tie those events to submittal of the LA rather than site recommendation and selection. That deferral, Nevada advocated, could "ease the burden of compliance" by allowing participants to omit from their production documents that had become "obsolete, invalid or irrelevant" due to changes in the repository design or other intervening developments. Deferral could help "eliminate the possibility of expending resources on unnecessary review of documents that might be superseded by the time of the license application." Deferral also would allow the LSN Administrator more time to design the LSN with the "most up-to-date technology." For these reasons Nevada recommended that the "initial capture" of documentary material on the LSN be postponed and tied to submittal of the LA.⁴³

⁴² 65 FR 50937 (August 22, 2000).

⁴³ 66 FR 29453, 29459 (May 31, 2001).

Nevada made no suggestion whatever about the required scope or completeness of work product at initial certification. The Commission accepted both of Nevada's proposals.

Thus, the motivation behind the initial certification provision of § 2.1003(a) was not to ensure that DOE had completed all its supporting documentary material six months in advance of LA submittal. It was to "ease the burden of compliance" by deferring the "initial capture" of documents on the LSN by all participants, including DOE. It was not conceived as a substantive deadline for completion of DOE's, or any other participant's, documentary material.

C. Nevada's Extraneous Citations Are Irrelevant

In lieu of addressing the Statements of Consideration, Nevada cites various extraneous documents. Those documents are not part of the rulemaking and are not pertinent to the interpretation of § 2.1003(a).

NRC Regulatory Guide 3.69. Nevada's citation to NRC Regulatory Guide 3.69 is perplexing, as Nevada concedes that it "does not address the timing issue . . ." ⁴⁴ That is, Reg. Guide 3.69 does not address what DOE must make available on the LSN at the time of initial certification versus supplemental productions. In any event, Nevada's attempt to use Reg. Guide 3.69 to interpret § 2.1003(a) repeats an error Nevada made in connection with its motion to compel production of the draft LA. The Commission held in connection with that motion that Regulatory Guide 3.69 is merely guidance and cannot be used to "supplement or alter" the Subpart J regulations. ⁴⁵

DOE's Frequently Asked Questions. DOE's Frequently Asked Questions (FAQs) are not pertinent to the interpretation of § 2.1003(a). The FAQs are not Commission documents, and

⁴⁴ Nevada Motion at 8.

⁴⁵ CLI-06-05, 2006 NRC LEXIS 32, at *25.

since they were first prepared in 2004, they obviously could in no way constitute part of the rulemaking for § 2.1003(a) in 2001.

Further, Nevada wrongly argues that the FAQs enumerate “required contents of the initial LSN certification.”⁴⁶ They do not. They provide general advice to Yucca Mountain Project personnel to help them identify potential documentary material to ensure DOE collects the pertinent documents. The focus of the FAQs is the breadth of potential relevance and not the timing for completion of DOE’s work product.

Nevada also wrongly tries to attach significance to the fact that an early version of the FAQs states that 10 CFR Part 2 requires DOE “to provide the general public and parties to the licensing hearing with electronic access all documentary material relevant to the licensing proceeding,” whereas a later version omits the word “all.”⁴⁷ The first version does not purport to address whether DOE’s supporting documentary material must be finished at DOE’s initial certification, and thus the change in the latter version has no significance to the instant motion. Both statements express a generalization that is as unremarkable as it is immaterial to Nevada’s motion—the LSN is the vehicle for the participants’ document production.

Draft LSN Strategy Documents. Nevada’s reference to several draft LSN strategy papers from the 2000/2001 timeframe is of no moment.⁴⁸ They were drafts that never were approved. The statements Nevada selectively emphasizes from those unapproved drafts are not instructive either, as they are generalized, inconsistent, or beside the point (as might be expected from drafts). For example, Nevada notes that the October 5, 2001 draft refers to “providing

⁴⁶ Nevada Motion at 15.

⁴⁷ Nevada Motion at 18-19.

⁴⁸ *E.g.*, Nevada Exs. 7, 8 and 9.

access to relevant documents before DOE submits its license application.”⁴⁹ That document is not instructive as there is no controversy about DOE providing access to relevant documents before it submits the LA. Rather, Nevada seeks to forestall DOE’s initial certification until its supporting documentary material is complete, something the draft does not address.

III. THE BOARD’S DECISION STRIKING DOE’S PRIOR CERTIFICATION IS NOT GERMANE

Nevada’s citation to the Board’s decision striking DOE’s prior certification is not well founded. The Board’s decision did not address whether DOE must have completed all of its supporting documentary material before DOE could certify. The Board’s decision could not have addressed that issue because Nevada did not raise that issue in its motion. Nevada’s motion complained about the unavailability of existing documents, primarily because DOE had not finished the process of collecting and identifying existing documents that qualified as documentary material. Nevada did not contend that DOE’s certification was insufficient because all of DOE’s expected documentary material was not finished. Statements from this Board’s decision granting Nevada’s motion, therefore, must be read against that backdrop. Those statements did not address whether DOE’s supporting work product must be finished by the time of its initial certification, and cannot fairly be construed now as having done so.⁵⁰

If anything, the only relevance Nevada’s original motion to strike has to the instant motion is the inconsistency between Nevada’s arguments in the two motions. Nevada knew at the time of DOE’s certification in 2004 that not all of DOE’s supporting material was finished,

⁴⁹ Nevada Motion at 10; Nevada Motion Ex. 9.

⁵⁰ Reflective of that fact, the questions the Board ordered DOE to answer regarding Nevada’s motion to strike asked about “extant documentary material.” The Board asked no question about work product DOE had not completed. *See* 2004 NRC LEXIS 15 (2004) at *1, Questions 2 and 3.

including the Total System Performance Assessment (TSPA), the Analysis Model Reports (AMRs), and the Preclosure Safety Analysis (PCSA). Nevada knew this because DOE regularly reported in public on the status of its work product such as at the NRC's Quarterly Management Meetings. Nevada's representatives attended those meetings and/or received the summaries of the meetings that included copies of DOE's presentations.

The status reports leading up to DOE's 2004 certification made clear that DOE's supporting documentary material was not finished. The incomplete documents included the same types of documents addressed in Nevada's motion—the TSPA, PCSA and AMRs.⁵¹

Further, there was open discussion at the meetings that some of the “building blocks” of the LA would not be completed until after DOE's contractor delivered a draft of the LA in July.⁵² The completion of those “building blocks” self-evidently would occur only after DOE's certification in June.

At that time, Nevada did not object to DOE's certification on the ground that the TSPA, AMRs, PCSA and other “building blocks” of the LA were incomplete and not yet finished. To the contrary, Nevada affirmatively recognized in its motion to strike that the LSN regulations permitted DOE to certify in these circumstances so long as DOE made available its documentary material in existence at the time of certification.

In this regard—and in stark contrast to the omission in Nevada's current motion—Nevada's motion to strike acknowledged that the rulemaking history recognized the likelihood that DOE would generate additional documentary material after its initial certification:

⁵¹ February 2004 Quarterly Management Meeting Summary, License Application Status PowerPoint at 4 (Exhibit D hereto); May 2004 Quarterly Management Meeting Summary, License Application Status PowerPoint at 3 (Exhibit E hereto).

⁵² Exhibit E, Summary Minutes at 5.

The notice of final rulemaking also pointed to the likelihood that additional “documentary material” would be generated after the date of DEN’s [Department of Energy’s] initial certification, and it made provision therefor: “Documentary material created after the initial certification of compliance is expected to be made available reasonably contemporaneous with its creation, rather than stored for entry as a group at some point during the remaining time before DOE submits the license application.” *Id.* at 29460. This ongoing delivery of newly created material – not in existence at the time of DEN’s initial certification – would be consistent with “the need to provide participants with early and useful access to documentary material before DEN submits the license application. As DEN noted in its comments on the proposed rule, new information will continue to be produced during the period before it submits the license application.”⁵³

Nevada then set forth its view of § 2.1003(a). That regulation, Nevada maintained, “could not be clearer that [DOE’s] initial certification must include all documentary material that is known to, in the possession of, or developed by or at the direction of [DOE] *at the time of certification.*”⁵⁴ Nevada reiterated that view on the following page of its motion, declaring: “it follows that the initial certification must correspondingly apply to all the available [DOE] documentary materials *in existence at the time of initial certification.*”⁵⁵ Nevada never maintained in its motion that § 2.1003(a) requires anything more.

Nevada now ignores its own positions of record and contends that it is not sufficient under § 2.1003(a) for DOE to make available all its known documentary material in existence at the time of initial certification. The Board should not allow Nevada to assume such inconsistent positions in this proceeding.

⁵³ Nevada Motion to Strike the Department of Energy’s LSN Certification and for Related Relief (July 12, 2004) [hereafter, Nevada Motion to Strike] at 7, ¶ 15.

⁵⁴ Nevada Motion to Strike at 9, ¶ 4 (emphasis added).

⁵⁵ *Id.* at 10, ¶ 7 (emphasis added).

IV. DOCUMENTS TO BE COMPLETED

DOE, like any applicant, follows a controlled process to develop its scientific, engineering and other technical work to support its application. The documents DOE has yet to complete are those that logically are completed at the end of that development process. They are, by their very nature, the last ones that will be completed in the process of preparation of an application. Requiring them to be included in final form on the LSN a full six months before filing of an LA would be tantamount to requiring completion of the LA half a year before it may be filed. As shown above, the Commission imposed no such requirement for the initial certification.

That by no means signifies that the LSN now fails to include relevant material concerning those remaining analyses. Nevada's complaint—that DOE's supporting material must be finished at the time of initial certification in order for Nevada to prepare contentions—thus has no basis in either the requirements of Subpart J or in the facts, given the vast amount of documentary material already available on the LSN. The following discussion demonstrates the unfounded nature of Nevada's specific assertions.

Analysis Model Reports (AMR). The AMRs are substantially complete. The LA is expected to cite approximately 150 AMRs. All but three of those AMRs are complete and available on the LSN in the form to be cited and relied upon in the LA. The remaining three are expected to be completed and added to the LSN well before LA filing.⁵⁶

⁵⁶ A misleading impression about the status of AMRs from Nevada's motion needs correction. Nevada provides a partial list of AMRs with projected completion dates. (Nevada Motion, Ex. 38) If that list were taken at face value, the Board might infer that 9 AMRs were incomplete at DOE's initial certification. Nevada's motion additionally suggests the possibility that other AMRs might not be finished either, by artfully saying: "assuming that all the other AMRs on the list were completed on precisely the timeline DOE anticipated" (Nevada Motion at 28) In fact, at Nevada's request DOE confirmed the status of the AMRs on Nevada's Exhibit 38 as part of the meet and confer process for this motion. Nevada advised that it located

Surface Design/Pre-Closure Safety Analysis. With respect to preclosure safety analysis and surface design, the vast majority of surface design work intended to be relied upon in the LA has been completed and is included on the LSN.⁵⁷

TSPA. TSPA-related material that Nevada received in connection with the Draft Geologic Repository Supplemental Environmental Impact Statement is on the LSN. Nevada's own expert, Mike Thorne, in a Declaration in support of Nevada's motion,⁵⁸ concedes that this information is "extensive" (Declaration, ¶ 3), including a 150-gigabyte hard drive containing extensive data regarding the TSPA.⁵⁹ Thorne further concedes that "the type of information given on this hard drive will be fundamental to scrutinizing the adequacy of the TSPA-LA." (Declaration, ¶ 5) Perhaps more fundamentally, the very critiques in his Declaration reflect a thorough understanding of the structure and anatomy of the TSPA.⁶⁰

on the LSN all but 9 of these AMRs and asked DOE about their status. (Exhibit H hereto) DOE provided Nevada with the requested information showing all but three are on the LSN. (Exhibits G & I hereto) Nevada failed to incorporate this information in its motion.

⁵⁷ To the extent that Nevada's real argument here is that the expected state of surface facility important-to-safety design at the time of LA filing—35% to 40% complete—is insufficient, this is plainly an argument that does not go to the adequacy of production of documentary material for an initial LSN certification. Rather, the argument goes to the merits of the application. As such, it will be subject to review by the NRC Staff in docketing and, if Nevada chooses, a potential basis for a contention. In the meantime, the actual discussion of this issue between DOE witness Robert Slovik and members of the NWTRB at their September 19, 2007 meeting illustrates the totally unexceptionable nature of this expected state of design completion. (Exhibit J hereto)

⁵⁸ Declaration of Mike Thorne ¶ 5 (Nevada Motion, Ex. A).

⁵⁹ See DN 2002478969.

⁶⁰ See, for instance, his awareness of the analysis-convertibility issue available from README files (Declaration ¶ 5); his awareness of runs which are yet to be added (¶ 6); his understanding of the functioning of DLL file sets in the analysis (¶ 7); and his concession that "the SEIS material that can be scrutinized includes the GoldSim files and these provide both input data and a range of results" (¶ 8). If the current LSN collection is, as he suggests, akin to a

Seismic Activity. With respect to seismic activity, Nevada alleges that DOE will not provide initial analyses for the LSN until at least February 2008, and that confirmatory analyses will not be available until May 2008. In fact, the seismic analysis on which DOE intends to rely in the LA is already on the LSN.

Volcanism. Nevada repeats at length an argument initially advanced in its earlier Motion for Declaratory Ruling: that the analysis of volcanism performed for DOE and reflected in a 1996 expert elicitation is allegedly inadequate and does not reflect a later elicitation process. Nevada also contends that DOE's treatment of volcanism does not respond to an August 2007 report prepared by the NRC's Center for Nuclear Waste Regulatory Analysis. Nevada's arguments go to the adequacy of DOE's analysis of volcanism, not the sufficiency of its LSN certification DOE has completed, and will rely on for purposes of filing the LA, the 1996 elicitation, the results of which are on the LSN.

QARD. Nevada complains that version 20 of the Quality Assurance Requirements and Description (QARD) is in development and not yet on the LSN. Version 19, which was completed in July, 2007, is available on the LSN, along with other antecedent versions.⁶¹ The QARD will continue to be updated throughout the licensing of the repository as any licensee does, and DOE will continue to produce current versions to the LSN as they are issued.

TDMS. Nevada's complaint about the TDMS is the alleged absence from the LSN of a single report prepared by Sandia National Laboratory. The document was not completed until September 14, 2007. DOE disagrees with Nevada's characterization of the document's relevance and contents. In any event, Nevada admits that DOE gave it a copy of the report

large jigsaw puzzle with some missing pieces (¶ 10), he clearly knows already what those remaining pieces are, their functions, and where to look for them when they are produced.

⁶¹LSN Acc. #DN2002457258.

pursuant to a FOIA request. Nevada can include the document in its LSN production if it considers the report to be documentary material.

Key Technical Issues (KTI). Nevada complains that there are open KTIs. There is no requirement, however, that these KTIs be closed, much less that they be closed before DOE's initial certification. KTIs were an informal mechanism, used relatively early by joint agreement between the NRC Staff and DOE, to define and track the evolution and resolution of technical issues. It was discontinued in 2004, when many KTIs had been resolved and remaining ones were in more extended review leading to resolution in the LA in any event. The KTI process was not required by Part 63, the LSN regulations, the Yucca Mountain Review Plan, or any other regulation or guidance for the licensing of the Yucca Mountain repository. Thus, the only relevance to the LSN of documents associated with the KTI process is that DOE make available those documents that were completed in connection with the KTI process and that qualify as documentary material. DOE has done that.

Vulnerability Assessment. The LSN regulations in no way require DOE to perform or complete the Vulnerability Assessment process, much less complete it prior to initial certification. The documents that have been generated to date as part of that process and that qualify as documentary material have been made available on the LSN in the required bibliographic header only format as privileged documents.

CONCLUSION

For the reasons stated above, the Board should deny Nevada's motion. Section 2.1003(a) does not contain the restriction on DOE's initial certification that Nevada advocates, and what Nevada seeks is a *de facto* amendment to that regulation. DOE's initial certification complies fully with Subpart J and should stand. Further, there is no basis to suspend the other

participants' certifications, and they should be required to certify consistent with regulatory requirements.

U.S. DEPARTMENT OF ENERGY

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November 9, 2007

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
BEFORE THE PRE-LICENSE APPLICATION PRESIDING OFFICER BOARD

In the Matter of)
)
U.S. DEPARTMENT OF ENERGY) ASLBP No. 04-829-01-PAPO
)
(High-Level Waste Repository:)
Pre-Application Matter))

THE DEPARTMENT OF ENERGY'S
RESPONSE TO THE STATE OF NEVADA'S MOTION TO STRIKE
DOE'S OCTOBER 19, 2007 LSN RECERTIFICATION
AND TO SUSPEND CERTIFICATION OBLIGATIONS OF OTHERS
UNTIL DOE VALIDLY RECERTIFIES

I certify that copies of the foregoing THE DEPARTMENT OF ENERGY'S RESPONSE TO THE STATE OF NEVADA'S MOTION TO STRIKE DOE'S OCTOBER 19, 2007 LSN RECERTIFICATION AND TO SUSPEND CERTIFICATION OBLIGATIONS OF OTHERS UNTIL DOE VALIDLY RECERTIFIES in the above-captioned proceeding have been served on the following persons on November 9, 2007 by Electronic Information Exchange.

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U.S. DEPARTMENT OF ENERGY

By Original Signed by Michael R. Shebelskie

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DOE EXHIBIT A

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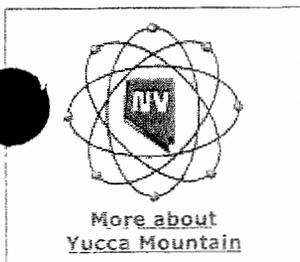
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Documents added to Yucca database

By STEVE TETREALT
STEPHENS WASHINGTON BUREAU



WASHINGTON -- The Energy Department announced Monday it has added 2.1 million documents to a Yucca Mountain electronic database that is available to the public.

Coupled with earlier postings, the database now contains 3.4 million DOE scientific and engineering documents, and other material government officials say will support their bid to establish a nuclear

waste repository in Nevada.

Yucca Mountain critics said the licensing support network also is likely to contain information hinting at repository flaws, and they plan to examine the documents closely.

Bob Loux, executive director of the Nevada Agency for Nuclear Projects, said the documents will be divided among 30 science consultants and critiqued for information that could become part of the state's case against the project, to be located about 100 miles northwest of Las Vegas.

Nevada plans to file "thousands" of contentions, or objections, during formal repository licensing hearings the Nuclear Regulatory Commission is expected to hold, Loux said.

The network Web site is www.nsnnet.gov. It also contains Yucca documents posted so far by the NRC, Nye County and the state

of Nevada.

The electronic library will be shared among the participants in repository license hearings. DOE spokesman Allen Benson said several hundred thousand more documents remain to be posted.

The public disclosure appeared to douse one fight between the Energy Department and Nevada, which had alleged that the DOE was hoarding documents and making it hard for the state to track the project.

Another disagreement may be brewing.

By law the licensing database must be officially certified six months before the DOE is allowed to file a repository license application with the NRC. DOE officials have said they plan to certify the database in December so the agency can file an application by the end of June.

But Loux said the state plans to protest that key documents such as analyses of key computer models, and the Total System Performance Assessment, a major science document, might not be made available until the spring.

"The modeling reports are foundation documents that may not be ready until sometime next year," Loux said. "We continue to think this will cause DOE a problem in trying to certify their records."

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DOE EXHIBIT B

DOE EXHIBIT B

Statement of Joseph R. Egan

Before the House Subcommittee On the Federal Workforce and Agency Organization

“Yucca Mountain Project: Have Federal Employees Falsified Documents?”

April 5, 2005

Mr. Chairman and members of the subcommittee, thank you for the opportunity to address you today on this important national issue. My name is Joe Egan. I am a nuclear engineer and an attorney specializing in nuclear safety and environmental litigation. My Tysons Corner firm, Egan Fitzpatrick Malsch & Cynkar, PLLC, has handled a wide variety of nuclear cases over the past decade, including several involving the Department of Energy complex. I have been asked to address two specific issues related to your investigation of falsified documents at DOE's proposed Yucca Mountain nuclear waste repository. One is quality assurance, and the other involves DOE's ongoing efforts to suppress information about the misdeeds of its Yucca contractors and the geologic inadequacy of the Yucca site.

Introduction

On September 11, 2001, Nevada's Attorney General appointed me Special Deputy Attorney General to assist the Governor's Office and Nevada's Agency for Nuclear Projects in litigation and NRC licensing proceedings involving Yucca. I worked with those offices to assemble a small, world-class team of highly experienced nuclear and environmental attorneys and independent scientific experts to undertake this task. Our team has been performing a thorough evaluation of the scientific and legal integrity of the work done by DOE and its contractors at Yucca, and we have filed several lawsuits challenging that work.

One of those suits does not directly involve Nevada, though the State is closely following it. It is a class-action suit brought by private attorneys, including my firm, on behalf of the workers at Yucca who drilled five miles of tunnels into the silica-laden rock there without mandatory respiratory protection. It relies on the testimony of experienced industrial hygienists that DOE's contractors falsified air quality and health and safety records at the project to save time and money on drilling, leading to gross and dangerous overexposures to toxic dust. So document falsification is not a new issue at Yucca.

Approximately a year into our review of the technical record for the project, I opined publicly that there would never be an ounce of nuclear waste buried at Yucca Mountain. I strongly maintain that view today. Indeed, in light of problems now emerging at a dizzying pace, epitomized by those your subcommittee is investigating, I believe it is quite possible, if not probable, that an application for a construction permit for the Yucca project will never even be docketed by the NRC, let alone granted. The project appears poised to sink on the character and fitness of DOE to be an NRC licensee,

and on the profoundly defective quality and inaccuracy of the records and scientific analyses supporting DOE's technical work. It is of vital importance to Nevadans and the nation as a whole that these records and analyses not be suppressed or hidden by DOE.

The Forced Disclosure of DOE's Emails

Last June, DOE purported to certify to NRC that all of its relevant documents concerning the Yucca project – some 2.1 million – had been made publicly available on an electronic database called the Licensing Support Network, or LSN. We challenged that certification before an NRC Licensing Board, arguing that DOE had improperly withheld at least six million documents, including roughly four million emails it had misleadingly called “archival” emails. DOE tried to create the impression in its certification that these emails were so old as to no longer be relevant to the project. On examination by the Licensing Board, however, it was learned that these emails were not archival at all, but extended through at least the year 2002 or 2003. The Licensing Board agreed with us that DOE had not shown good faith, and that emails often offer the most candid, unvarnished assessment of the facts.

On August 31 of last year, NRC's Licensing Board granted our request to strike DOE's document certification on three independent grounds. Among other things, the Board required DOE to produce all of its “archival” emails and perhaps millions of additional withheld records. It is only because of our motion to strike and the Board's inquiry that the emails that are the subject of this hearing came to light. The Board's order forced DOE's outside attorneys to have to review these emails for various privileges that might apply. I commend those attorneys, Hunton & Williams, for advising Secretary Bodman to disclose publicly that some of the emails evidenced falsified scientific data by the government's own scientists. It bears noting, however, that DOE really had no option but to disclose this information, since the emails were about to be forced into the public domain under compulsion of the Board's order.

It will be troubling, to say the least, if your investigation reveals that DOE's Yucca managers knew of the falsifications for years prior to this forced disclosure, and long prior to having declared the Yucca site “suitable” and recommending it to President Bush and the Congress. The discovery of document falsification by anyone at Yucca should immediately have been brought to project superiors and been fully investigated. Such conduct should immediately have raised issues of whether DOE's contractors may or should have been subject to debarment under federal contracting laws, whether they may or should have been liable for treble damages under the False Claims Act, whether bonuses should have been withheld, whether other civil or criminal statutes were implicated, and whether DOE itself, if indeed it tolerated such conduct, possesses the character and fitness to be an NRC licensee under NRC's regulations that will now, for the first time ever, be applicable to DOE.

Additional Troubling Emails

Since Secretary Bodman's disclosure, we have been combing DOE's electronic database for additional evidence of document falsification. We have already located additional emails that do evidence such falsification, as well as DOE's knowledge of gross deficiencies in the quality and accuracy of the records supporting DOE's scientific analyses of Yucca Mountain. Some of these emails, which appear to be only the tip of the iceberg, are attached as exhibits to my prepared statement. Additional emails are posted on Nevada's Nuclear Projects Office website at <http://www.canwin.org/LSN/>. When coupled with the emails DOE has recently released to your subcommittee, what the documents appear to show is a project so amiss, and so tremendously adrift from what NRC's quality assurance rules require, that it is almost impossible to imagine that DOE could any longer establish the basic prerequisites to even complete its license application, let alone survive four years of NRC litigation over it.

Consider what the few e-mails available to us before DOE's recent disclosures show. They show current project management (Bechtel/SAIC) directing its quality assurance personnel not to use the word "violated" in their audit reports ("noncompliant," a less disturbing term, was preferred) (Exhibit 1); project personnel adopting the position that NRC should be given "minimum information" (Exhibit 2); project personnel afraid to call whole programs deficient because fixing them would be too expensive (Exhibit 3); secret communications that question whether critical representations to the NRC about safety priorities are correct (Exhibit 4); efforts to "keep some people in blissful ignorance" about technical problems (Exhibit 5); an assumption that the proof "that will get us through the regulatory hoops" need not be "rigorous" (Exhibit 6); a program that carefully manipulates statistics to assure that the results are always "in the right place" (Exhibit 7); a program where scientific instruments are documented as properly calibrated before they are even received, much less calibrated (Exhibit 8); a project where discord and distrust are so rampant that senior officials are called "swindlers," "certifiable jerks," and worse, and the management of the principal contractor is called "craven and ignorant" (Exhibit 9). They evidence a project where dramatic and unexpected information ("Water Water Everywhere") apparently gives DOE "ulcers" but not enough discomfort to delay a scientific report to Congress so the new information can be included (Exhibit 10). To be sure, there are some good people that tried to do the right thing. For example, DOE quality assurance reviews in August of 2000 concluded that there was "evidence of major flaws in the approach taken towards implementation of an effective Quality Assurance Program," and "the wrong culture of the individuals involved" (Exhibit 11). As one documentation manager complained, "I don't know how to fight lies and misinformation, and no one seems to care about the truth, or even making sure the right people are doing the right stuff" (Exhibit 12). But who at DOE listens?

NRC's quality assurance rules are designed to ensure that all technical findings in a license application are supported by a proper and believable document pedigree. For example, it is not enough for DOE simply to claim that the infiltration rate of water through Yucca's rock is value X. DOE must also be able to show that the instruments used to measure the parameters necessary to calculate X were approved instruments that

DOE EXHIBIT C

DOE EXHIBIT C

KENNY C. GUINN
Governor

STATE OF NEVADA

ROBERT R. LOUX
Executive Director

~~DOCKET NUMBER~~
PROPOSED RULE 2
(68FR 66372)



②

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USNRC

January 9, 2004 (3:20PM)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

January 9, 2004

VIA FACSIMILE

Secretary
U.S. Nuclear Regulatory Commission
Attn: Rulemaking and Adjudications Staff
Washington, D.C. 20555-0001

Re: RIN 3150-AH31
Comments on Proposed Rule, 10 C.F.R. Part 2, Licensing Proceeding for the Receipt of High-Level Radioactive Waste at a Geologic Repository: Licensing Support Network, Submissions to the Electronic Docket, 68 Fed. Reg. 66,372-82, November 26, 2003

Dear Sir:

The following comments on the subject Proposed Rule are being submitted on behalf of the State of Nevada and the Nevada Agency for Nuclear Projects. The Nevada Agency for Nuclear Projects was established by the legislature in 1985, to carry out the State's oversight duties related to the federal high-level nuclear waste program. Commenting on this Proposed Rule is within the Agency's assigned purview.

The Nuclear Regulatory Commission ("NRC") is proposing this amendment to 10 C.F.R. 2 for the purpose, among other things, of clarifying the respective roles and obligations of the United States Department of Energy ("DOE"), the NRC's Licensing Support Network ("LSN") Administrator, as well as other parties and potential parties with respect to the LSN. The LSN is an electronic information management system anticipated to be utilized in connection with a licensing proceeding for the proposed nuclear waste repository at Yucca Mountain, Nevada. As stated in the preamble to the Proposed Rule, "The Licensing Support Network (LSN) provides full text search and retrieval access to the relevant documents of all parties and potential parties to the HLW licensing proceeding in the time period before the U.S. Department of Energy (DOE) license application for the repository is submitted." (68 Fed. Reg. 66,372).

Template = SECY-067

The evolution of the LSN (originally denominated the "Licensing Support System") is instructive and confirms the intention of NRC from the inception of the program to establish an orderly sequence for the preparation of databases first by DOE, then by NRC, and finally, by Nevada and other parties and potential parties, containing all the documents considered relevant to the licensing proceeding by those parties. This sequence is captured in 10 C.F.R. Section 2.1003(a), which provides that DOE, the party with the burden of proof to establish its entitlement to an NRC license, would be the first to file its LSN database. The section goes on to prescribe deadlines of 30 days after DOE for the NRC, and 90 days after DOE for Nevada and other parties to file their respective LSN databases, all triggered by DOE's certification of its own database.

It is clear from the preamble of NRC's Proposed Rule that the foregoing step-wise approach was carefully calculated to (1) enable the parties to the anticipated proceeding other than DOE to have a reasonable time to review the DOE LSN database before preparing and filing their own and (2) make sure that the filing of all the respective databases was complete substantially prior to the docketing of DOE's License Application. Thus, NRC emphasizes in its preamble that the provisions of 10 C.F.R. 2.1003(a) "require the DOE to make its documentary material available to other potential parties and the public in electric form via the LSN no later than six months in advance of DOE's submission of its License Application to the NRC." (68 Fed. Reg. 66,373). Likewise, NRC made clear its intention that the entire sequence of LSN database filings was (akin to document production before trial in civil litigation) intended to be complete well before the time of DOE's License Application, and was intended to expedite the licensing process by supplanting what otherwise could be lengthy document production initiatives between and among the parties: "The Commission believed that the LSN could facilitate the timely review of DOE's License Application by providing for electronic access to relevant documents via the LSN before the License Application is submitted, rather than the traditional, and potentially time consuming, discovery process associated with the physical production of documents after a license application is submitted. In addition, the Commission believed that early access to these documents in an electronically searchable form would allow for a thorough and comprehensive technical review of the license application by all parties and potential parties to the HLW licensing proceeding, resulting in better focused contentions in the proceeding." (Vol. 68 Fed. Reg. 66,372-73) (emphasis supplied). NRC reiterates this point later in the Proposed Rulemaking, confirming its expectation that the LSN "would provide potential participants with the opportunity to frame focused and meaningful contentions and to avoid the delay potentially associated with document discovery, by requiring parties and potential parties to the proceeding to make all their Subpart J-defined documentary material available through the LSN prior to the submission of the DOE application. These purposes still obtain." (Vol. 68 Fed. Reg. 66,376) (emphasis supplied).

Given the desired goals of the sequential filing of databases by licensing proceeding participants - to avoid chaos and to ensure orderly preparation for the licensing proceeding by completing document exchange among the parties prior to the docketing of DOE's License Application, Nevada is deeply concerned that the present wording of the Proposed Rulemaking will fail to achieve NRC's goal. Specifically, it is very apparent to Nevada, from public pronouncements by DOE forecasting inclusion of over 40 million pages in its LSN database, and due to the necessary

administrative processing steps required by NRC after receipt of DOE's LSN database in order to render it available and accessible to the other parties, that a period of time, perhaps substantial, will expire after DOE's submission before such availability is achieved. In other words, the date when DOE's LSN database will be available and accessible to the other parties and to the public is not the date on which DOE certifies delivery of its LSN database, but a later date.

Hypothetically, were it to take 25 days from the time of DOE's certification before its database was actually available and accessible, the time period available to Nevada and other non-federal parties to review the enormous DOE database and deliver their own would shrink from 90 days to 65. Even more ominously, the time for the NRC staff itself to meet its filing obligation would shrink from 30 days to 5! Clearly, this result would defeat the clear intention of the sequential database filing timetable articulated by NRC in its Proposed Rulemaking.

Fortunately, the "vice" of this dilemma and its remedy are fairly easy to perceive. Specifically, the risk of compression is occasioned by allowing DOE's certification to be the "trigger" for the deadlines of the other parties, when obviously, the intent of NRC in its rulemaking, clear from both the historical perspective and its preambular statements in this very Proposed Rulemaking, bespeaks a quite different intention -- that NRC and the other parties be guaranteed a reasonable time (30 and 90 days, respectively) to prepare and submit their databases after DOE's is available and accessible.

The solution to avoiding what could be a chaotic result is readily suggested by other provisions of NRC's Rulemaking. Specifically, Section 2.1011(c) provides that the LSN administrator shall have the responsibility to "identify any problems experienced by the participants regarding LSN availability, including the availability of individual participant's data." It is the availability of DOE's database which is critical and not merely its filing date. Likewise, Section 2.1011 defines the LSN administrator as "the person within the U.S. Nuclear Regulatory Commission responsible for coordinating access to and the integrity of data available on the Licensing Support Network." Obviously, it is NRC's LSN administrator who will be uniquely situated to define the point in time when DOE's LSN database is available and accessible to the parties and to the public.

Accordingly, Nevada proposes that NRC change the "trigger" for the filing of LSN databases by parties other than DOE (including NRC itself, as well as Nevada and other parties) to the date on which the NRC's LSN administrator confirms the availability and accessibility of the DOE LSN database -- for this is the true and meaningful starting point which would give vitality to the stated intention of NRC.

Nevada proposes that NRC's LSN administrator provide, both to the public by Federal Register notice and to the director of NRC's Office of Nuclear Materials Safety and Safeguards ("NMSS"), Notice of Acceptance of DOE's LSN database certification, confirming its availability and accessibility to the public and to the parties to the licensing proceeding. It is that event, rather than the mere DOE certification, which would be the critical date, *vis a vis* the preparation by the

other parties of their concomitant LSN databases. Such a scenario would be totally consistent with the stated intentions of NRC that there be an orderly exchange of documents prior to the License Application and the facilitation of focused contentions by the parties. Then, the 30-day and 90-day LSN filing deadlines for the NRC staff and for Nevada and other parties, respectively, set out in Section 2.1003(a) ought be measured from the truly meaningful date – the date DOE's database is available and accessible, as signaled by the NRC LSN administrator's Notice of Acceptance, rather than the date of the DOE's certification. In a related context, 10 C.F.R. 2.1012(a) provides that the NMSS director will not docket the DOE License Application until at least six months have elapsed from the time of the DOE certification. This provision should likewise be changed to provide that the six-month period would be measured from the NRC LSN administrator's Notice of Acceptance.

Significantly, Nevada's proposed language is directly parallel to language already used by the Commission in discussing the accessibility of the License Application itself: "The Director may determine that the tendered application is not acceptable for docketing . . . if the Secretary of the Commission determines that the application cannot be effectively accessed through the Commission's electronic docket system." (10 C.F.R.2.1012(a)). This is consistent with Nevada's suggestion that the docketing of the License Application (and the LSN filing deadlines discussed above) be measured from the actual time of availability and accessibility of DOE's LSN database, rather than from the certification date on which DOE asserts its submission is complete.

Nevada believes that by adopting the following three brief modifications, the Proposed Rulemaking can be rendered entirely consistent with NRC's expressed intent, and can avoid what otherwise promises to become a chaotic pre-License Application document dilemma. Accordingly, Nevada urges adoption of these provisions:

1. Sec. 2.1003 Availability of Material.

(a) the NRC shall make available no later than 30 days after the LSN Administrator's Notice of Acceptance to the Director of NRC's Office of Nuclear Materials Safety and Safeguards of DOE's certification of compliance..., and each other potential party...no later than ninety days after the LSN Administrator's Notice of Acceptance to the Director of NRC's Office of Nuclear Materials Safety and Safeguards of DOE's certification of compliance...

2. In Sec. 2.1011(c), subparagraph (8) should be added, to read as follows:

(8) Issue, and cause to be published in the Federal Register, a Notice of Acceptance to the Director of the NRC's Office of Nuclear Materials Safety and Safeguards when the documentary material included in DOE's initial certification, pursuant to Sec. 2.1009, and all subsequent certifications, is fully accessible to all users and potential users of the Licensing Support Network, within the meaning of this Subpart.

3. In Sec. 2.1012, paragraph (a) should be revised to read as follows:

(a) [If the Department of Energy fails to make its initial certification at least six months prior to tendering the application upon receipt of the tendered application - *delete*] [N]otwithstanding the provisions of Sec. 2.101(f)(3), the Director of the NRC's Office of Nuclear Materials Safety and Safeguards will not docket the application until at least six months have elapsed from the time of the Federal Register publication of the LSN Administrator's Notice of Acceptance of DOE's initial certification. The Director may determine . . .

Finally, Nevada suggests that an appropriate addition be made to new Section 2.1003(e) in the Proposed Rulemaking, to ensure its consistency with NRC's stated philosophy in regard to the parties' exercise of good faith in the completeness of their submittals. Specifically, subsection (c) to Section 2.1003 in the Proposed Rulemaking addresses the continuing supplementation by the parties of their respective LSN database submissions. In the preamble, the Commission explains that it "still expects all participants to make a good faith effort to include on their LSN document collection servers all of the . . . documentary material that reasonably can be identified by the date specified for initial compliance in Section 2.1003(a) of the Commission's regulations." That observation by the Commission, in turn, is consistent with the basic requirement of its regulation 10 C.F.R. 63.21, which similarly provides that DOE's License Application "must be as complete as possible in light of information that is reasonably available at the time of docketing." Nevada accordingly suggests that in order to effect to this NRC principle, the following sentence be added to 2.1003(e) in the Proposed Rulemaking: "However, the documentary material must be as complete as possible in the light of information that is reasonably available at the time of initial certification."

Nevada urges that each of the changes proposed by Nevada are both consistent with effecting stated NRC policy and intent and necessary to avoid extreme prejudice to Nevada, the NRC staff, and other licensing parties in the preparation and submission of their LSN databases.

Thank you for the opportunity to comment on this Proposed Rule amendment.

Sincerely,



Robert R. Loux
Executive Director

DOE EXHIBIT D

DOE EXHIBIT D

UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

MOL. 20040413.0501

March 31, 2004

RECEIVED BY BSC CCU
DATE: 04/06/2004

Mr. Joseph Ziegler, Director
Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy
1551 Hillshire Drive
Las Vegas, NV 89134-6321

SUBJECT: SUMMARY OF THE FEBRUARY 19, 2004, U.S. NUCLEAR REGULATORY
COMMISSION/U.S. DEPARTMENT OF ENERGY QUARTERLY MANAGEMENT
MEETING

Dear Mr. Ziegler:

Enclosed is the summary of the February 19, 2004, Quarterly Management Meeting between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy. The purpose of the meeting was to discuss the status of various management and programmatic issues concerning Yucca Mountain, Nevada.

The meeting was held at the NRC offices in Rockville, Maryland with video and audio connections with Bechtel SAIC offices in Las Vegas, Nevada and the Center for Nuclear Waste Regulatory Analyses in San Antonio, Texas.

If you have any questions regarding the enclosed meeting summary, please contact Omid Tabatabai at (301) 415-6616.

Sincerely,

A handwritten signature in black ink, appearing to read "C. William Reamer".

C. William Reamer, Director
Division of High Level Waste
Repository Safety
Office of Nuclear Material Safety
and Safeguards

Enclosures:

1. Management Meeting Summary
2. Agenda
3. List of Attendees
4. Consolidated Action Items
5. Presentations

cc:

See attached list

Letter or Memorandum to J. Ziegler from C. W. Reamer, dated: March 31, 2004

cc:

A. Kalt, Churchill County, NV	M. Corradini, NWTRB
R. Massey, Churchill/Lander County, NV	J. Treichel, Nuclear Waste Task Force
I. Navis, Clark County, NV	W. Briggs, Ross, Dixon & Bell
E. von Tiesenhausen, Clark County, NV	M. Chu, DOE/Washington, D.C.
G. McCorkell, Esmeralda County, NV	G. Runkle, DOE/Washington, D.C.
L. Fiorenzi, Eureka County, NV	C. Einberg, DOE/Washington, D.C.
A. Johnson, Eureka County, NV	S. Gomberg, DOE/Washington, D.C.
A. Remus, Inyo County, CA	W. J. Arthur, III, DOE/ORD
M. Yarbro, Lander County, NV	R. Dyer, DOE/ORD
S. Hafen, Lincoln County, NV	J. Ziegler, DOE/ORD
M. Baughman, Lincoln County, NV	A. Gil, DOE/ORD
L. Mathias, Mineral County, NV	W. Boyle, DOE/ORD
L. Bradshaw, Nye County, NV	D. Brown, DOE/OCRWM
M. Maher, Nye County, NV	S. Mellington, DOE/ORD
D. Hammermeister, Nye County, NV	C. Hanlon, DOE/ORD
M. Simon, White Pine County, NV	T. Gunter, DOE/ORD
J. Ray, NV Congressional Delegation	A. Benson, DOE/ORD
B. J. Gerber, NV Congressional Delegation	N. Hunemuller, DOE/ORD
F. Roberson, NV Congressional Delegation	M. Mason, BSC
T. Story, NV Congressional Delegation	S. Cereghino, BSC
R. Herbert, NV Congressional Delegation	N. Williams, BSC
L. Hunsaker, NV Congressional Delegation	E. Mueller, BSC
S. Joya, NV Congressional Delegation	J. Mitchell, BSC
K. Kirkeby, NV Congressional Delegation	D. Beckman, BSC/B&A
R. Loux, State of NV	M. Voegele, BSC/SAID
S. Frishman, State of NV	B. Helmer, Timbisha Shoshone Tribe
S. Lynch, State of NV	R. Boland, Timbisha Shoshone Tribe
P. Guinan, Legislative Counsel Bureau	R. Arnold, Pahrump Paiute Tribe
J. Pegues, City of Las Vegas, NV	J. Birchim, Yomba Shoshone Tribe
M. Murphy, Nye County, NV	R. Holden, NCAE

cc: (Continued)

R. Clark, EPA

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R. McCullum, NEI

S. Kraft, NEI

J. Kessler, EPRI

D. Duncan, USGS

R. Craig, USGS

W. Booth, Engineering Svcs, LTD

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J. Bacoeh, Big Pine Paiute Tribe of the
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P. Thompson, Duckwater Shoshone Tribe

T. Kingham, GAO

D. Feehan, GAO

E. Hiruo, Platts Nuclear Publications

G. Hernandez, Las Vegas Paiute Tribe

K. Finrock, NV Congressional Delegation

P. Johnson, Citizen Alert

A. Elzeftawy, Las Vegas Paiute Tribe

C. Meyers, Moapa Paiute Indian Tribe

R. Wilder, Fort Independence Indian Tribe

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J. Egan, Egan, Fitzpatrick & Malsch, PLLC

J. Leeds, Las Vegas Indian Center

J. C. Saulque, Benton Paiute Indian Tribe

C. Bradley, Kaibab Band of Southern Paiutes

R. Joseph, Lone Pine Paiute-Shoshone Tribe

L. Tom, Paiute Indian Tribes of Utah

E. Smith, Chemehuevi Indian Tribe

D. Buckner, Ely Shoshone Tribe

V. Guzman, Walker River Paiute

D. Eddy, Jr., Colorado River Indian Tribes

H. Jackson, Public Citizen

J. Wells, Western Shoshone National
Council

D. Crawford, Inter-Tribal Council of NV

I. Zabarte, Western Shoshone National
Council

S. Devlin

G. Hudlow

**SUMMARY OF THE
U.S. NUCLEAR REGULATORY COMMISSION/U.S. DEPARTMENT OF ENERGY
QUARTERLY MANAGEMENT MEETING
IN ROCKVILLE, MARYLAND
ON FEBRUARY 19, 2004**

Introduction

The U.S. Nuclear Regulatory Commission (NRC) and U.S. Department of Energy (DOE) held a public Quarterly Management Meeting for the Yucca Mountain Project (YMP) on February 19, 2004. The purpose of this meeting was to discuss the overall progress of the project at the potential geologic repository site at Yucca Mountain, Nevada. The meeting was hosted at the NRC Headquarters in Rockville, Maryland, with video and audio connections to the DOE Office of Repository Development in Las Vegas, Nevada, and the Center for Nuclear Waste Regulatory Analyses (CNWRA) in San Antonio, Texas. Other participants included representatives from the Nuclear Energy Institute (NEI), NRC Region IV, Bechtel SAIC Co. LLC (BSC), General Accounting Office (GAO), State of Nevada, Nevada Nuclear Waste Task Force, Clark County, and interested members of the public.

NRC Opening Remarks

Mr. Martin Virgilio, Director of the NRC's Office of Nuclear Materials Safety and Safeguards (NMSS), began his opening remarks by stating that the DOE/NRC Quality Assurance (QA) meeting held on February 18, 2004, was very productive. He went on to cover three major topics in his opening remarks, including (1) resolution of Key Technical Issue (KTI) Agreements, (2) recent evaluations performed by the NRC concerning DOE's technical documents, and (3) the Technical Exchange on February 3-4, 2004, regarding level of detail (especially "design" detail).

Mr. Virgilio noted that measurable progress has been made in the area of KTI Agreements, but emphasized the importance of adhering to the schedule, especially for igneous activity. He also stated that, after reviewing the Technical Basis Documents (TBDs), the NRC staff appreciates the bundling approach, which provides a better context for reviewing the issues.

Regarding the NRC's evaluations of DOE technical documents, Mr. Virgilio indicated that a publically available report summarizing the three evaluations will be available in the March/April time frame. He also provided the basis for the NRC's decision to conduct the evaluations using a "no-observer" approach. He explained that these evaluations were outside the scope of the DOE/NRC Pre-licensing interactions agreement and were not in a meeting-style format.

Mr. Virgilio also indicated that the Technical Exchange regarding level of detail was a success, with the parties reaching a common understanding of the level of detail that DOE will provide in its license application (LA) and the need for additional interaction concerning the classification of items that are important to safety.

In concluding his opening remarks, Mr. Virgilio stated that the NRC is continuing to develop its inspection program, which will ultimately transition to increased participation by Region IV.

NRC Program Update

Ms. Janet Schlueter, Chief of the NRC's High-Level Waste (HLW) Branch in the NMSS Division of Waste Management, provided an update concerning the NRC's program activities since the Quarterly Management Meeting in November 2003. Her remarks addressed the staff's review of bundled KTI agreements, an update of the Risk Insights Baseline report, the staff's ongoing efforts to update the Integrated Issue Resolution Status Report (IIRSR), development of the inspection program, and the staff's interactions with the NRC's Advisory Committee on Nuclear Waste (ACNW) and others.

Ms. Schlueter indicated that since last October, the NRC has received seven Technical Basis Documents (TBDs) that address 81 KTI Agreements. She also noted that the NRC has expressed concerns to DOE regarding the lack of supporting information and documents referenced in the TBDs that have been submitted for NRC review. Specifically, Ms. Schlueter mentioned that in a letter dated December 23, 2003, the NRC asked DOE to provide 50 reference documents to enable the staff to complete its reviews. In its response dated January 30, 2004, DOE provided a detailed plan on how it intended to provide both the NRC and the public with the supporting information, including the status of all 50 documents requested by the NRC. Since then, DOE has provided most of these documents to the NRC and has simultaneously made them available to the public. Ms. Schlueter encouraged DOE to "stay on track" with its current KTI Agreement schedule, under which DOE would address the remaining agreements by late August of this year, providing the NRC with review time prior to receipt of the LA (planned for December 2004).

Ms. Schlueter also stated that the staff has continued its activities regarding the Risk Insights Initiative and has integrated the risk insights into various program areas, including the ongoing review of the TBDs. She added that the staff will likely issue an updated version, based on new information, before receipt of the LA.

In addition, Ms. Schlueter indicated that in June 2002, the staff issued the Integrated Issue Resolution Status Report (IIRSR) to reflect the then current status of the 293 agreements and the staff's understanding of the performance of the potential repository from a systems approach. The integrated sub-issues approach also aligns with the structure of the current Yucca Mountain Review Plan and reflects the staff's approach to reviewing an LA. She indicated that since that time, the staff has increased its knowledge and understanding of the repository and its potential performance; however, the status of many agreements has changed. As a result, the staff believes that it will be of benefit to the NRC staff and the agency's stakeholders to issue an update to the IIRSR before receipt of the LA.

As for the ongoing development of the NRC's inspection program, Ms. Schlueter stated that the staff is continuing its efforts to integrate risk insights into the development of various aspects of the inspection program, which will be in effect if the NRC docket the LA. The staff has issued several inspection procedures and continues to work with the Region IV office and the CNWRA to develop additional procedures. The NRC's Region IV staff is also assisting

headquarters in qualifying staff as HLW inspectors. One has been qualified to date, and the NRC expects two others to be qualified by December of this year.

In concluding her remarks, Ms. Schlueter stated that the staff is working diligently to issue a publicly available final report on the findings of the three-part evaluations of the DOE program, which the NRC's teams of experts completed in the November – January time frame.

DOE Program Update

Dr. Margaret Chu, Director of DOE's Office of Civilian Radioactive Waste Management (OCRWM), provided an update from the DOE Program perspective. Specifically, she covered the breakdown of the proposed \$880 million budget for fiscal year (FY) 2005 into three major components, including the repository, transportation, and waste acceptance. Dr. Chu also explained the planned transition of the Management Improvement Initiatives (MII) to the various line organizations to continue as routine business practices. She indicated that, via a letter to the NRC, DOE will document the details of closure of the MII. Dr. Chu also summarized the current status of the silica screening program and indicated that two known cases of silicosis exist to date. She further indicated that after hearing allegations of document falsification regarding test results for dust in the Exploratory Studies Facility, she has asked DOE's Office of the Inspector General to investigate the allegations. Dr. Chu added that although this issue is not a regulatory matter for the NRC, the Program remains committed to ensuring occupational safety in conjunction with a safety-conscious work environment (SCWE).

DOE Yucca Mountain Project Update

Mr. John Arthur, Deputy Director of DOE's Office of Repository Development (ORD), provided the YMP update. He began by announcing DOE's pending decision that he will function as the Chief Nuclear Officer and will certify DOE's input to the Licensing Support Network (LSN). The DOE input to LSN is projected to contain approximately 30 million pages, comprising about 3 million documents, and is about 50 percent complete. Mr. Arthur also confirmed that DOE will respond to the NRC's letter on this subject, dated February 5, 2004. In addition, he stated that the Disposal Decision Plan is expected to be available in June and that DOE will brief the NRC on the details of that plan.

Mr. Virgilio asked what Mr. Arthur meant by the statistic that the LSN is 50 percent complete. Mr. Arthur explained that about half of the pages are nearing readiness to be placed in the LSN, and that they have been reviewed for accuracy and have been cleared with respect to sensitivity and security.

Mr. Arthur then expressed appreciation for the valuable insights and lessons learned from the NRC's three technical evaluations, especially in terms of the recognition that the technical documents need to be written in a more transparent style and be as standalone as practical.

Mr. Arthur also provided an update concerning the annunciator panel status and the role of the Leadership Council. He explained that the Leadership Council meets every 2 weeks to review selected condition reports (CRs) and the bases for late actions. Mr. Arthur noted that while progress has been made, the process needs to become stabilized and decisions regarding the "white" (i.e., no data population) and "gray" (i.e., awaiting final approval) indicators

need to be made. The NRC requested an interaction to discuss performance indicators, including those that are "red" and those that are "yellow" and declining.

The NRC staff inquired about incorporating the performance metric for "human performance" in the panel. DOE noted that most human performance problems are in the areas of skill-based and procedural noncompliance. Furthermore, implementations of six key project procedures (including those for data, software, and models) comprise the majority of problems in this area. DOE added that their senior managers have taken action to meet with the managers of the three offices with the highest numbers of human performance issues. Additionally, they will emphasize the need for improvement in the area of human performance with approximately 200 project managers and supervisors in a quality-focus meeting soon.

In response to a question from the NRC concerning where the human performance metric would be placed on the panel, Mr. Dennis Brown, Director of the OCRWM Office of Quality Assurance (OQA), indicated that although a final decision has not yet been made, a human performance indicator could be placed in the SCWE box. DOE agreed to provide a briefing to the NRC on the panel and selected individual metrics.

Mr. Virgilio asked what corrective actions DOE has planned to improve the implementation of six procedures that comprise more than half of the procedural noncompliance issues. Mr. Brown indicated that this is being handled through the action plan regarding human performance, and added that the action plan includes activities such as "pre-job briefings."

Mr. Arthur then provided an overview of the status of the commitments described in DOE's letter to the NRC dated May 29, 2003. Specifically, he indicated that 8 of the 13 actions have been closed. In particular, Mr. Arthur discussed DOE's new Corrective Action Program (CAP), the status of major corrective actions that are currently underway, and personnel changes in the Employee Concerns Program. He also indicated that DOE is aggressively recruiting someone to manage the Employee Concerns Program. Mr. Arthur also noted Mr. John Streeter's good work in managing the program in the interim. In addition, in response to the NRC's question regarding the timing for completion of commitment number 13 in DOE's letter dated May 29, 2003, Mr. Ziegler, Director of the Office of License Application and Strategy in DOE's Office of Repository Development, responded that the commitment action is expected to be closed within the next 60 days (by April 2004). DOE's Commitment number 13, in its May 29, 2003, letter, indicated that DOE would provide a semiannual report to its employees to communicate successes, lessons learned, and emphasize commitment to accountability. This commitment was to be fulfilled in October 2003. Even though information was communicated to employees in October 2003, DOE has deferred closure of this commitment until the process for reporting semi-annually has been institutionalized.

Mr. Arthur then went on to discuss the results of several recent independent assessments of DOE programs. Specifically, he outlined the process for integrating and prioritizing the various recommendations in the performance management assessment, the organizational assessment, the SCWE external survey and the quality assurance management assessment (QAMA). Mr. Arthur also described the five-phase approach used to evaluate the set of recommendations, the grouping of like recommendations, and the prioritization method. He added that those recommendations that provide the greatest benefit and can be implemented

in a reasonable time frame will be done first, with several items being deferred until after submission of the LA.

Mr. Matula, NRC, expressed concern regarding the transition of the Corrective Action Program (CAP) to line management. Mr. Arthur and Mr. Brown indicated that DOE will develop a formal transition plan and that the transition will occur gradually and systematically. However, they stated that the project must move toward holding the line accountable for CAP with strong oversight by the OQA.

License Application Status

Mr. Ziegler reported progress in DOE's preparation of the LA and in the technical areas of data qualification, software verification, and model validation. However, he noted the possibility of slippage of the schedule for preparing some analysis and model reports (AMRs), and stated that DOE would examine whether the delays in submitting AMRs to the NRC could impact the staff's review of the seven TBDs for which the NRC has requested 50 specific references. Mr. Ziegler also provided DOE's views regarding the NRC's relative risk ranking of the model abstraction categories and four additional areas. He noted that there is agreement in most areas and that DOE staff provided a basis for the few instances in which there are differing views. Mr. Ziegler also discussed the basis for the differences, and the NRC requested continuing discussions on this topic. Mr. Virgilio indicated that the NRC staff will be focusing more on DOE's Total System Performance Assessment model.

Mr. Ziegler indicated that DOE will identify the data inputs for the safety analyses that are used in the LA required to be qualified and are indicated as "to be verified" (or TBV) at the time of LA submittal. He also confirmed that the data to be used in the LA must be of a high quality for its intended use.

Mr. Virgilio asked if DOE's LA schedule is flexible enough to allow time to incorporate the NRC's review results. Mr. Ziegler replied "yes, depending on the specific comments received" and any issues in comments received from the NRC after September would be resolved in the license application review process.

Quality Assurance Program Update

Mr. Dennis Brown (DOE) presented an overview of the QA meeting from the previous day and indicated it provided for excellent discussion of both the improvements and remaining weaknesses in the DOE QA program. He indicated the Navarro Quality Services contract had been extended and that additional QA/nuclear licensing expertise had been added with the hiring of Warren Dorman, who recently retired from Progress Energy.

He discussed the current status of the CAP and stated that improvements in this area include implementation of a new single CAP, increased management oversight through the CAP Oversight Committee as well as monitoring the effectiveness of the CAP. For example, the line organizations are currently performing assessments of the CAP to identify program constraints and areas where there may be difficulty in meeting their goals or requirements. He indicated that a full scale audit of the CAP is currently scheduled to be performed in July 2004.

He stated that although there are no adverse trends found per criteria in procedure AP-16.3Q, Trend Evaluation and Reporting, in the area of human performance, BSC did find a pattern of errors. Specifically, 90 percent of CRs from Fiscal Year 2003 are related to human performance (40 percent), management (26 percent), and communications (24 percent). He stated that root cause of human performance issues were primarily skill-based. He also noted that rule-based and knowledge-based causes were due to less-than-adequate self-checking and omitting steps in the procedures. He added that skill-based errors are caused primarily by the amount of time it takes to complete a product according to procedural controls.

Mr. Brown added that CAR BSC-01-C-002 (CR-102), which addresses ineffective implementation of software management requirements, is an area of improvement. He stated that CR-102 corrective actions include procedure revisions/development (which include templates to ensure QARD requirements are met), training and implementation of requirements emphasis, and management improvement activities. There are two corrective actions remaining. He described the results of the OQA sponsored evaluation of software deficiency resolutions conducted by industry experts. He also reported that to date no adverse impact on code functionality or technical products has been noted.

Mr. Brown also discussed CAR BSC-03-C-107 (CR-016) regarding data management and qualification. This CAR was issued by BSC because of recurring data deficiencies. He added that, as a corrective action, BSC evaluates each technical product for procedure compliance. He further explained that the evaluation is being performed in two Phases. In Phase I, review for product compliance is completed during checking and review of AMRs, and in Phase II, reviews cover legacy data issues and are completed on approved AMRs.

Mr. Brown said that BSC issued CAR BSC-01-C-001 (CR-099) in May of 2001 and that the corrective actions included changes to address model validation issues identified in technical products, procedure enhancements, and training. BSC completed corrective actions and requested OQA verification in August 2003. OQA performed an audit of Model Reports in October 2003. OQA also verified that BSC completed 11 of the 12 CR-099 corrective actions. During the verification OQA found that six of the 20 sampled Model Reports were unsatisfactory. As a result, OQA concluded that CR-099 could not be closed.

Mr. Brown indicated that Dr. Chu and Jesse Roberson of EM had signed a new Memorandum of Agreement and an audit schedule for EM has been developed and shared with the NRC.

He explained that DOE is developing a transition plan to transfer CAP responsibility to the line that will include determining corrective action effectiveness. He also noted that DOE will ensure the transition is well managed and appropriate controls will remain in effect. In addition, this transition will be reflected in an upcoming revision to the Quality Assurance Requirement Description (QARD), which DOE expects to submit to the NRC for review and acceptance in the March time frame.

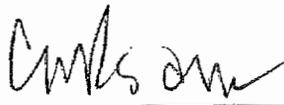
In conclusion of his presentation, Mr. Brown noted improvements in Trending Program. He stated that based on the results and findings from the fourth Quarter FY 2003 Trend Evaluation Report, DOE was able to; (1) identify the processes that are experiencing the most errors in implementation, (2) identify why those processes have errors, and (3) take focused corrective actions based on the errors' likely causes.

Closing Remarks

In concluding the meeting, Mr. Virgilio noted the forthcoming reorganization of the NRC's Division of Waste Management into two divisions. He stated that Mr. C. William (Bill) Reamer will become the Director of a newly created High-Level Waste Repository Safety Division, which will focus on the Yucca Mountain Project. In addition, Mr. Virgilio announced that, beginning March 1, 2004, Ms. Schlueter will serve in the NRC Chairman's Office. The next NRC/DOE Quarterly QA and Management meeting is planned for May 11-12, 2004, in Las Vegas, Nevada.

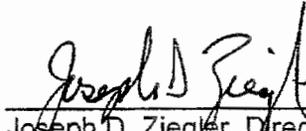
Public Comments

After the closing remarks, Mr. Von Tiesenhausen of Clark County stated that the Project's efforts to benchmark performance against the nuclear industry were commendable. However, he took exception to the NEI representative's general statement, from the previous day, that writing large number of deficiency reports suggests a healthy organization. Mr. Von Tiesenhausen emphasized that an effective corrective action program, which appropriately addresses repetitive conditions, should result in a decreasing number of deficiency reports. He further stated that an effectively implemented trend reporting system could be beneficial, but it should be appropriately weighted to account for the time that items remain open.



Date: 3/31/04

C. William Reamer, Deputy Director
Division of Waste Management
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission



Date: 3/26/04

Joseph D. Ziegler, Director
Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy



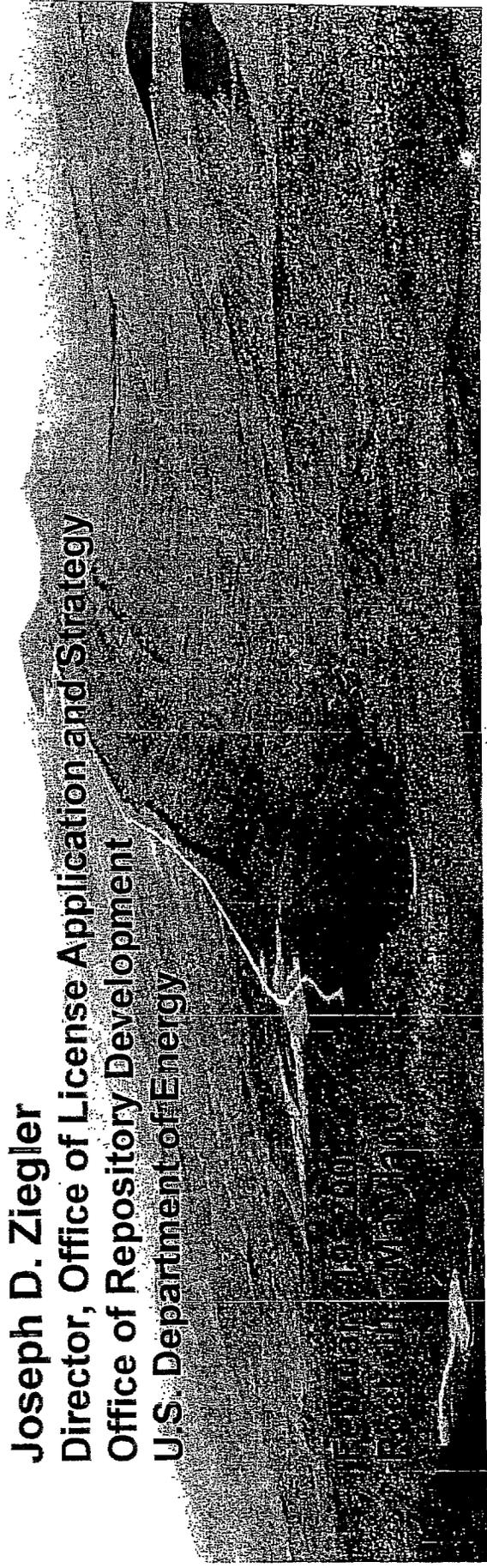
U.S. Department of Energy
Office of Civilian Radioactive Waste Management



License Application Status

Presented to:
DOE/NRC Quarterly Management Meeting

Presented by:
Joseph D. Ziegler
Director, Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy



Topics for Discussion

- License Application (LA) Schedule Status
- DOE Comments on NRC Risk-Ranking of Key Technical Issue Agreements
- LA Content and Level of Design Detail
- Key Technical Issue (KTI) Agreement Status
 - Handling of References
- Summary

License Application Status

- **Work on the Safety Analysis Report is proceeding on a schedule to support submittal of the complete LA in December 2004**
- **Design work is proceeding on a schedule to support completion of the safety analysis in Summer 2004**
- **A more focused revision of the Performance Confirmation Plan is under development**

Management Assessment of Progress Towards License Application

<u>COMPONENT</u>	<u>% COMPLETE (11/03)</u>	<u>%COMPLETE (01/04)</u>
• KTI Agreement Addressed	42%	70% *
• LA Document	7%	14%
• Preclosure Safety Assessment	51%	45% **
• TSPA-LA	63%	76%
• Design	<u>40%</u>	<u>56%</u>
• TOTAL WEIGHTED % COMPLETE	42%	54%
• 100% of KTI Agreements will be addressed prior to submission of the LA		

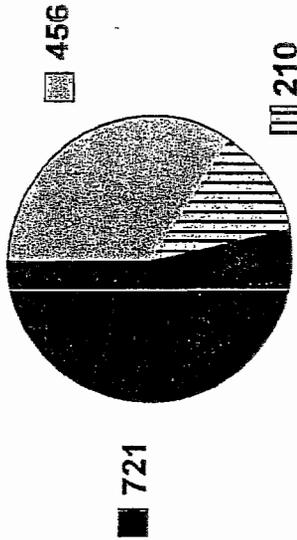
* Formula revised to reflect status as % of 293 agreements with complete DOE submittals

** Decline due to increased work scope since 11/03 reporting



Status of License Application Data, Codes, and Models

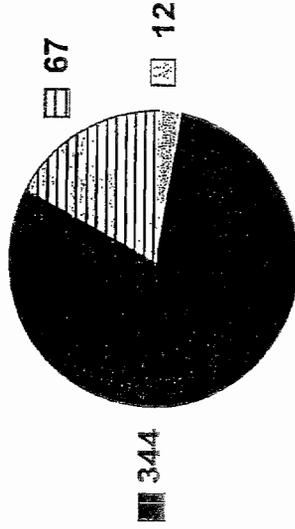
Data (Estimate)



Total Datasets: 1,387
Qualified: 721 (52%)
Being Verified: 456 (33%)
Being Developed: 210 (15%)*

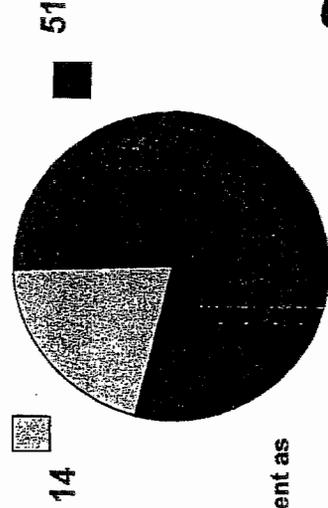
*Estimated number of additional datasets that will be developed as models approach completion

Codes (Estimate)



Total Codes: 423
Qualified & Verified: 67 (16%)
Qualified (Legacy/re-testing): 344 (81%)
Developing/verifying: 12 (3%)

Models



Total Model Reports Directly Supporting LA: 65
Model Reports Completed: 51 (78%)
In Process: 14 (22%)

¹Status of qualification activities for LA and completion of reports (current as of 12/31/03)

²Model Reports may contain multiple models



DOE EXHIBIT E

DOE EXHIBIT E



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

MOL.20040712.0109

QA: N/A

June 16, 2004

RECEIVED BY BSC CCU
DATE: 06/21/2004

Mr. Joseph Ziegler, Director
Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy
1551 Hillshire Drive
Las Vegas, NV 89134-6321

SUBJECT: MEETING SUMMARY FOR THE MAY 11, 2004, U.S. NUCLEAR REGULATORY COMMISSION/U.S. DEPARTMENT OF ENERGY QUARTERLY MANAGEMENT MEETING

Dear Mr. Ziegler:

Enclosed is the summary of the May 11, 2004, Quarterly Management Meeting between the U.S. Nuclear Regulatory Commission (NRC) and the U.S. Department of Energy (DOE). The purpose of the meeting was to discuss the status of various management and programmatic issues concerning Yucca Mountain, Nevada.

The meeting was held at the Bechtel SAIC offices in Las Vegas, Nevada, with video and audio connections with NRC offices in Rockville, Maryland, and the Center for Nuclear Waste Regulatory Analyses in San Antonio, Texas.

If you have any questions regarding the enclosed meeting summary, please contact Omid Tabatabai at (301) 415-6616.

Sincerely,

A handwritten signature in black ink, appearing to read "C. William Reamer".

C. William Reamer, Director
Division of High Level Waste Repository Safety
Office of Nuclear Material Safety
and Safeguards

Enclosures:

1. Management Meeting Summary
2. Consolidated Action Items
3. Agenda
4. Presentations
5. List of Attendees

cc: See attached list

Letter to J. Ziegler from C.W. Reamer, dated: June 16, 2004

cc:

A. Kalt, Churchill County, NV	A. Elzeftawy, Las Vegas Paiute Tribe
R. Massey, Churchill/Lander County, NV	J. Treichel, Nuclear Waste Task Force
I. Navis, Clark County, NV	W. Briggs, Ross, Dixon & Bell
E. von Tiesenhausen, Clark County, NV	M. Chu, DOE/Washington, D.C.
G. McCorkell, Esmeralda County, NV	G. Runkle, DOE/Washington, D.C.
L. Fiorenzi, Eureka County, NV	C. Einberg, DOE/Washington, D.C.
A. Johnson, Eureka County, NV	S. Gomberg, DOE/Washington, D.C.
A. Remus, Inyo County, CA	W. J. Arthur, III, DOE/ORD
M. Yarbrow, Lander County, NV	R. Dyer, DOE/ORD
S. Hafen, Lincoln County, NV	J. Ziegler, DOE/ORD
M. Baughman, Lincoln County, NV	A. Gil, DOE/ORD
L. Mathias, Mineral County, NV	W. Boyle, DOE/ORD
L. Bradshaw, Nye County, NV	D. Brown, DOE/OCRWM
M. Maher, Nye County, NV	S. Mellington, DOE/ORD
D. Hammermeister, Nye County, NV	C. Hanlon, DOE/ORD
M. Simon, White Pine County, NV	T. Gunter, DOE/ORD
J. Ray, NV Congressional Delegation	A. Benson, DOE/ORD
B. J. Gerber, NV Congressional Delegation	N. Hunemuller, DOE/ORD
F. Roberson, NV Congressional Delegation	M. Mason, BSC
T. Story, NV Congressional Delegation	S. Cereghino, BSC
R. Herbert, NV Congressional Delegation	N. Williams, BSC
L. Hunsaker, NV Congressional Delegation	E. Mueller, BSC
S. Joya, NV Congressional Delegation	J. Mitchell, BSC
K. Kirkeby, NV Congressional Delegation	D. Beckman, BSC/B&A
R. Loux, State of NV	M. Voegele, BSC/SAID
S. Frishman, State of NV	B. Helmer, Timbisha Shoshone Tribe
S. Lynch, State of NV	R. Boland, Timbisha Shoshone Tribe
P. Guinan, Legislative Counsel Bureau	R. Arnold, Pahrump Paiute Tribe
J. Pegues, City of Las Vegas, NV	J. Birchim, Yomba Shoshone Tribe
M. Murphy, Nye County, NV	R. Holden, NCAE

cc: (Continued)

R. Clark, EPA

R. Anderson, NEI

R. McCullum, NEI

S. Kraft, NEI

J. Kessler, EPRI

D. Duncan, USGS

R. Craig, USGS

W. Booth, Engineering Svcs, LTD

L. Lehman, T-Reg, Inc.

S. Echols, Esq

C. Marden, BNFL, Inc.

J. Bacoeh, Big Pine Paiute Tribe of the
Owens Valley

P. Thompson, Duckwater Shoshone Tribe

T. Kingham, GAO

D. Feehan, GAO

E. Hiruo, Platts Nuclear Publications

G. Hernandez, Las Vegas Paiute Tribe

K. Finrock, NV Congressional Delegation

P. Johnson, Citizen Alert

A. Capoferri, DOE/ Washington, DC

J. Williams, DOE/Washington, DC

C. Meyers, Moapa Paiute Indian Tribe

R. Wilder, Fort Independence Indian Tribe

D. Vega, Bishop Paiute Indian Tribe

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S. Devlin

G. Hudlow

D. Irwin, Hunton & Williams

**SUMMARY OF THE
U.S. NUCLEAR REGULATORY COMMISSION / U.S. DEPARTMENT OF ENERGY
QUARTERLY MANAGEMENT MEETING
IN LAS VEGAS, NEVADA
MAY 11, 2004**

Introduction

The U.S. Nuclear Regulatory Commission (NRC) and U.S. Department of Energy (DOE) held a public Quarterly Management Meeting for the Yucca Mountain Project (YMP) on May 11, 2004. The purpose of this meeting was to discuss the overall progress of the project at the proposed geologic repository site at Yucca Mountain, Nevada. The meeting was hosted at the Bechtel SAIC Company, LLC (BSC) offices in Las Vegas, Nevada, with video and audio connections to NRC headquarters in Rockville, Maryland, and the Center for Nuclear Waste Regulatory Analyses (CNWRA) in San Antonio, Texas. Other participants included representatives from the Nuclear Energy Institute, NRC Region IV, General Accounting Office (GAO), State of Nevada, Nevada Nuclear Waste Task Force, Clark County, the press, and interested members of the public.

NRC Program Update

Ms. Margaret Federline, Deputy Director, Office of Nuclear Materials Safety and Safeguards, NRC, began her remarks by discussing recent changes in NRC senior management as well as reorganization of the Division of Waste Management and the creation of the Division of High Level Waste Repository Safety (DHLWRS). She mentioned that Mr. Bill Reamer will serve as Division Director with Messrs. Elmo Collins and Lawrence Kokajko serving as Deputy Directors of this Division. She added that the DHLWRS will be the NRC's central point for receipt and review of DOE's license application. After discussing recent organizational changes in NRC, she briefly discussed three topics: (1) NRC's evaluation of DOE technical documents, specifically, analysis and model reports (AMRs); (2) NRC staff's activities regarding the risk insight initiative; and (3) a recently issued Staff Requirement Memorandum (SRM) by the Commission regarding the Package Performance Study.

Ms. Federline explained that the staff used its risk-insights baseline to select the AMRs believed to be of high or medium significance to repository performance. The NRC's three-part evaluation of DOE technical documents also included evaluation of the processes used in developing and controlling AMRs, and the effectiveness of recent corrective actions in eliminating recurring problems in the areas of models, software, and data. The NRC staff reported its findings in a public report, published in April 2004, and discussed them with DOE in detail in a public technical exchange on May 5, 2004. The NRC's evaluation of the DOE AMRs revealed some good practices by DOE; however, the staff identified some concerns with clarity, traceability, and transparency of the data used in the AMRs. The NRC staff report concluded that if the concerns with the quality of data persist, they could have an adverse impact on the NRC's ability to perform their review of the License Application (LA) and writing of a safety evaluation report (SER) within 18 months.

Regarding NRC staff's initiative to use risk information to prepare for the LA review, Ms. Federline remarked that the risk insights initiative will help the staff prioritize precicensing activities and to make decisions relative to the inspection process. She added that the staff has made two presentations on this topic to the ACNW and is planning to update, and risk-inform the Integrated Issue Resolution Status Report in September.

In conclusion, Ms. Federline indicated that the Commission has informed the staff that it has approved testing of a full-scale transportation cask. In its SRM, the Commission has instructed the staff to conduct the tests realistically and conservatively, including a fully engulfing fire.

Mr. Bill Reamer, Director of the DHLWRS, NRC, discussed the status of Key Technical Issue (KTI) agreements. He indicated that DOE has submitted responses to 214 of 293 agreements. The NRC staff has reviewed and closed 99 KTI agreements and currently has 115 KTI responses in process. Mr. Reamer urged DOE to submit responses to the remaining 79 KTI agreements that DOE has not yet provided, and additional information on 40 others, as soon as possible. He also expressed concern about agreement responses that are planned to be submitted later than what had originally been indicated by DOE in its previous schedules.

Mr. Reamer provided a brief status of the NRC On-Site Representatives' annual open house, which was held in Pahrump, Nevada, on May 10, 2004. He explained that the purpose of this gathering was to offer the community an opportunity to meet with NRC personnel and ask questions regarding NRC's role during the LA review. He indicated that the open house was well received by the local citizens and mentioned that approximately 40 members of the public attended the meeting.

DOE Program Update

Dr. Margaret Chu, Director of DOE's Office of Civilian Radioactive Waste Management, began her remarks by providing an update from the DOE Program perspective. Specifically, she discussed recent DOE activities that included retaining the Hunton and Williams law firm as the legal services contractor as well as organization realignment at the Office of Repository Development (ORD) implemented by Mr. John Arthur. Dr. Chu stated that recent NRC management realignment, mentioned earlier by Ms. Federline, along with DOE organization realignment, were signs that the project is closer to licensing proceedings. She also commented on NRC staff's evaluation of DOE's technical documents, the Corrective Action Program (CAP), and certain process controls. Dr. Chu agreed with NRC staff's findings that the DOE LA's key supporting information and documents, including data, models, and software, need improvements for transparency, traceability, and consistency of the technical bases. Dr. Chu noted that DOE has responded to the General Accounting Office (GAO) Report concerning the DOE QA program and that it disagrees with GAO report conclusions.

She indicated DOE has transitioned the management improvement initiative (MII) goals to the ORD's line management day-to-day activities. Dr. Chu cited closure of corrective action reports (CARs) on software and data management as examples of improvements. Dr. Chu provided a summary of the status of populating the Licensing Support Network (LSN), transportation developments, and cask acquisition. She added that DOE has published a Notice of Intent to develop an environmental impact statement (EIS) on rail alignment in the Caliente corridor and

to provide the schedule for EIS scoping meetings. DOE began making documents available to the NRC on May 5 for indexing prior to initial certification, which is expected to occur June 23, 2004. The DOE has begun cask design comparisons and is evaluating existing designs against future needs to ensure the safe transport of high level waste.

Dr. Chu concluded by stating that DOE can meet the challenges ahead and will develop an application that meets the NRC's expectations for quality.

Mr. Reamer commented that the NRC agrees with the GAO report conclusion that DOE should continue to focus on quality; however, it is up to DOE to determine how this will be done. He inquired as to whether QA oversight would continue once the CAP has transitioned to the line organization. Denny Brown, DOE-OQA, responded that QA oversight would include audits and Surveillances and QA will screen the Level C Condition Reports (CRs) during the transition period. OQA will continue to review Level A and B CRs after the transition period.

Yucca Mountain Project Update

Messrs. John Arthur and John Mitchell provided an update of the Yucca Mountain Project (YMP). Mr. Arthur indicated the purpose of the meeting was to summarize DOE's continuing improvements and accomplishments since the February 19, 2004, Management Meeting, and to discuss DOE's path forward to make the appropriate LSN certification and submit the LA. Mr. Arthur began by expanding on the DOE organization realignment presented earlier by Dr. Chu and indicated the importance of stabilizing the organization.

Mr. Arthur displayed the revised ORD reorganization that became effective on April 1, 2004. He highlighted the new roles of Mr. Richard Craun and Mr. Richard Spence and also mentioned that Mr. Mark Van Der Puy is now serving as the full-time ORD Safety Conscious Work Environment (SCWE) Coordinator and Mr. Ken Powers is the acting Director, Office of Business Support in addition to his other duties. DOE has selected Ms. Julie Goeckner, from DOE Richland, for the Employee Concerns Program Manager. Mr. Arthur indicated that Ms. Goeckner brings extensive experience in employee concerns management and will start in early July.

Mr. Arthur added that since the last Management Meeting in February, several major CRs have been closed, including, CR-16 (BSC(B)-03-C-107), on Data Management, on March 2 after 322 days, and CR-102 (CAR BSC-01-C-002), on Software, on March 30 after 1,033 days.

He also described DOE's plans for closing other level "A" CRs, such as, CR-99 (CAR-01-C-001), which is scheduled to be closed in July/August. He discussed progress in fostering a Safety Conscious Work Environment through continued management attention. Some of the recent actions he cited included:

- A memorandum signed by Dr. Chu on April 8, re-emphasizing to all employees the importance of safety conscious work environment,
- An ORD SCWE Policy, issued on April 26, to all ORD employees, contractor and sub-contractor employees to describe management expectations and responsibilities for an

SCWE. The key point of this policy is that safety is the overriding principle and that it guides ORD's activities,

- Completion of training for managers and supervisors in detecting and preventing retaliation and formation of eight solution-groups, and a pulse survey, emphasizing "Effective Methods to Detect and Prevent Retaliation."

Mr. Arthur indicated that the next step includes additional emphasis on line ownership of SCWE, a second program-wide survey to be conducted this fall, and heightened performance goals.

Mr. Arthur then covered the status of the DOE commitments listed in its 30-day letter to NRC. He indicated that DOE has closed 2 more of the 13 actions in its letter. Mr. Arthur stated the Disposal Decision Plan will soon be ready for external release and stated he expected to discuss it along with the construction schedule and surface design with NRC at a Technical Exchange in July.

Mr. Arthur stated that DOE's corrective action program is improving the ability of, and tools available to, the line organizations to perform trending analyses. He added that DOE has developed a Trend Analysis and Reporting Handbook that contains guidance on how to conduct trending analyses. The current trend is that over 50% of the condition reports are associated with four procedures regarding model development, scientific analysis, procedure development, and records management. The principal causal factors have been identified to be human performance and management. To improve human performance, he added that DOE is (1) sharing the lessons-learned with workers, (2) conducting pre-job briefings to underscore the importance of the work, and its linkage to the project mission, (3) providing enhanced training to ensure identified error patterns are addressed in training, and (4) simplifying and clarifying procedures in some cases for end-users. Mr. Arthur then mentioned several examples of improved performance in capturing Quality Assurance Requirements and Description (QARD) requirements in implementing documents, adequacy of the processes in QA procedures, completion time for Corrective Action Plans, and close-out rate for CRs.

Mr. Arthur briefly addressed the management assessment of LA progress since the last Management Meeting (68% complete through April). The estimated total page count for LA is 5,000+ pages. Mr. Arthur will be the DOE's authorized representative to sign the LA and submit it to NRC in accordance with Part 63 of Title 10 of Code of Federal Regulations (CFR).

Regarding the surface facilities design, Mr. Arthur indicated that stabilizing the design and inputs to the draft LA includes surface design re-configuration, and development of initial operating plans. These efforts will rely on extensive process experience from international facilities. An exhibit showed the planned surface facilities as well as recent additions and changes.

Mr. Arthur indicated one of the primary goals of the Regulatory Integration Team (RIT) is to centralize integration and production of the AMRs that will support the Total System Performance Assessment (TSPA) and the LA. He stated that 5 organizations were performing work for DOE in 5 different locations using 10 TSPA component models, and 104 AMRs. The RIT brings together 9 teams with support from Quality Engineering, Project Control, and

Operations under one project manager to evaluate and subsequently refine the AMRs that support TSPA-LA and the LA to improve integration, consistency, transparency, and traceability.

Mr. Arthur discussed the RIT's primary tasks and also indicated that the RIT is implementing the corrective actions for those CRs that have been initiated in conjunction with the NRC staff technical evaluation. Mr. Arthur stated that those concerns identified by the NRC had already been documented and entered into the improved single point-of-entry CAP.

Mr. John Mitchell, BSC General Manager, said that there would be a comparison of AMRs to LA sections and a testing of the data presented since many people will use it. He said the RIT will exist for about six months and then ongoing functions will transition to the long-term organization. He described the RIT as a single focused integration effort.

Ms. Federline asked how TSPA was integrated into the process to determine the robustness of key areas. Mr. Mitchell responded that individuals involved in the RIT come from organizations previously involved with TSPA. Ms. Federline questioned whether some of the RIT processes were on the LA preparation critical path. Mr. Ziegler responded that a portion of the RIT was on the critical path.

The NRC raised a question regarding the various deliverable dates, specifically, how complete the draft LA will be by July 2004, when some of the building blocks are going to be completed after the draft document is delivered. Mr. Mitchell responded that DOE (RIT) has a list of what has to be completed soon to facilitate a timely submittal of the LA. In addition, a large manpower effort supports the activities necessary to meet the deliverable dates. Additionally, the July deliverable is a draft LA and will be complete enough to allow the LA review process by DOE management to begin. The NRC also remarked that it was unclear as to how the LA preparation efforts are being integrated to meet the schedule. The DOE responded that it is watching the LA schedule carefully to make sure the right level of quality is factored into schedule and deliverables. Dr. Chu remarked that making real-time decisions is a critical part of the whole process. Mr. Mitchell commented that the Program has been gathering information for a number of months to support the LSN requirements. Mr. Ziegler commented that the Project is gathering momentum, the CAP program is an asset, and key steps are coming to fruition.

Regarding the integration of information, the NRC asked whether DOE would put supporting documents and information into the LA. Mr. Ziegler responded that this was discussed at the Level of Design Detail Technical Exchange held earlier and that DOE had responded that the LA will be a stand-alone document. He added that the support information (not included in the LA) would be available for NRC review separately.

Mr. Arthur briefly discussed the trending performed by the Project. He indicated that there was an improvement in performance related to human performance and that tools such as lessons learned and management briefings were utilized in improving performance. The NRC staff questioned DOE concerning the difference between the trending exhibits and those concerning trend patterns of human performance. The DOE responded that the difference involved the levels of implementation and was not about the adequacy of procedures or processes.

The NRC asked DOE whether or not real-time surveillance will be conducted and whether the RIT process was a quality-affecting process. DOE responded that the current phase of the RIT process is not a quality-affecting process but that parts of the RIT process will involve quality-affecting activities and will be governed by applicable procedural controls (such as resolution to technical issues and revisions of AMRs). Mr. Dennis Brown (DOE) also indicated that the two QA organizations are involved in the RIT process by providing daily oversight activities through Quality Engineers who identify potential QA issues.

In conclusion of this portion of the meeting, DOE noted the May 3, 2004 meeting on Performance Indicators (PIs) provided additional insights to the NRC staff on the development of the management tool DOE is using to determine areas requiring additional management attention. DOE also noted that the metrics would evolve to reflect changes in the Program.

LA Status

Mr. Joseph Ziegler, Director, Office of License Application and Strategy, reported progress in DOE's preparation of the LA as well as in the technical areas of data qualification, software verification, and model validation. Mr. Ziegler provided a comparison of percentage completion for actions related to the LA from January 2004 to April 2004. The comparison also provided discussion of recent progress in LA preparation through April 2004. For instance, the reported April 2004 TSPA percentage complete appeared low, but that was due to the RIT review effort and DOE expects to be back on schedule soon. Similarly, Mr. Ziegler provided a comparison of the reported progress for data-set qualification, software qualification, and model development since the last NRC/DOE Management Meeting. Mr. Ziegler indicated that DOE was able to reduce the total number of required data-sets and software reported for this management meeting through an evaluation of the data-sets and software that are actually supporting the LA safety analysis.

Mr. Ziegler then provided a discussion of LA content and level of detail, and addressed the status of the KTI Agreements. Mr. Ziegler reaffirmed that all KTI Agreements will be addressed prior to LA submittal. The LA's level of detail will be that which is necessary and sufficient to support a risk-informed review of preclosure safety and postclosure performance by the NRC and the determinations required for granting the construction authorization. Mr. Ziegler also stated that DOE is acting more like a "typical" NRC licensee as demonstrated by its supporting the NRC's 3-week technical evaluation of AMRs and the CAP.

Mr. Ziegler provided a comparison of the November 2003 and April 2004 schedule for KTI Agreement response submittals to the NRC. He also provided the NRC risk ranking of the remaining KTI Agreement response submittals from the April 2004 schedule broken down by month. A summary of the KTI Agreements status was also provided, categorized by KTI issue.

Finally, Mr. Ziegler provided an overview of recent and near-term project interactions with the NRC. He included subjects of future interactions that need to be scheduled with the NRC.

NRC staff made the following comments to DOE:

- Reminded DOE that the LA needs to be complete and of high quality;

- Staff would like to see how the RIT will address staff's quality concerns identified during its 3-week technical evaluation of DOE AMRs and the CAP;
- Self-assessment of management processes by DOE is a good practice;
- Continue to put emphasis on decision-schedule; and
- The NRC will provide an update to DOE regarding the Joint NRC/DOE Classification Guideline.

NRC staff asked whether information not relied on in the LA, such as unqualified data-sets, software or models would be available. Mr. Ziegler responded that data-sets, software and models not qualified and therefore not used in the LA, will be in the LSN.

The NRC staff expressed concern with the available time for NRC review of KTI Agreements to be submitted this summer, prior to LA submittal. Mr. Ziegler explained that such KTI Agreement responses by DOE would be stand-alone responses. The NRC staff also indicated that DOE would not have enough time to respond to any questions by NRC after its initial reviews. Mr. Ziegler suggested that resolution of KTI Agreements not closed before August 2004 could be carried over into the licensing process. NRC staff stated they will not agree at this time to reviewing KTI Agreements as part of LA review. NRC staff asked the rationale for selecting topical areas for future DOE/NRC interactions. Mr. Ziegler indicated that the future interactions, in several cases, were requested by NRC to keep the NRC staff updated with the latest project information, and the others were to clarify or resolve prelicensing issues.

Quality Assurance Program Update

Mr. Dennis Brown (DOE) presented an overview of the quarterly QA meeting from May 4 and indicated the meeting was very productive. The meeting included discussion of on-going issues, improvements in the CAP, and CR-16 (CAR BSC-03-C-107) and CR-102 (CAR BSC-01-C-002) closures.

Mr. Brown discussed improvements in the CAP which resulted primarily from increased management involvement, implementation of a CAP oversight committee, and implementation of a senior management review committee for complex CRs. Mr. Brown noted that trending of human performance issues has shown a positive trend.

Mr. Brown reported the status of the recent and planned QARD revisions. Revision 14 was an internal revision to reflect the new organization and became effective April 1, 2004. Revision 15 to the QARD is currently under NRC review. He noted that one item of interest in Revision 15 is that QA will no longer review Level "C" CRs. Revision 0 of the new QA requirements document that will form the QA basis for repository licensing is under development with an expected submittal date to the NRC by late June. This revision will be in conformance to 10 CFR 63, Appendix G.

Mr. Brown also provided an update regarding QA activities including; legacy software retesting, model validation, a new time-out policy for AMRs' quality reviews, and schedule of future joint Office of Quality Assurance (OQA)/DOE Environmental Management (EM) audits.

Mr. Fred Brown (NRC) agreed that last week's quarterly QA meeting was very productive.

NRC staff asked Mr. Brown (DOE) what QA audits were scheduled in the near future. Mr. Brown responded that joint OQA/EM audits of activities related to the YMP were planned for the West Valley Demonstration Project (in May), the Idaho National Engineering and Environmental Laboratory (in June) along with other DOE sites later in the year.

NRC staff acknowledged that the increased level of management attention to CR corrective actions has had a positive effect. NRC staff also acknowledged closure of CR-102 (CAR BSC-01-C-002) and CR-016 (CAR BSC-03-C-107) and that NRC is interested in CR-99 (CAR BSC-01-C-001) closure actions and actions to prevent recurrence.

NRC staff inquired about the balance between performance-based and compliance-based audits. Mr. Brown (DOE) responded that technical staff is utilized for performance-based audits. Mr. Arthur added that the YMP leadership council also provides their input concerning the balance of different audit types.

Mr. Brown (DOE) noted that human performance was now a primary indicator on the panel. NRC staff questioned the color (white) of the past month's human performance indicator on the annunciator panel. Mr. Brown (DOE) responded by stating the color was based on the fact that the human performance indicator was a new metric on the annunciator panel and white for the previous months indicates no data. Mr. Fred Brown (NRC) added that this performance indicator was a good indicator to monitor.

Public Comments

Ms. Judy Treichel, Nevada Nuclear Waste Task Force, requested a copy of the NRC's DHLWRS organizational chart along with contact information. The NRC handed out the requested information at the meeting.

Mr. Steve Frishman, State of Nevada, wanted to know the effort involved with establishing the RIT. The DOE responded that the RIT consisted of approximately 150 individuals for 6 months at a cost of approximately 10 to 11 million dollars. Mr. Frishman also asked what RIT team members would be doing if they weren't involved on the RIT. DOE responded that they would be performing similar activities as part of their regular duties.

Mr. Arthur noted that there were significant improvements toward providing quality AMRs. Mr. Frishman indicated that there is a requirement that KTI Agreements must be completed before NRC review of the LA. Mr. Ziegler (DOE) took exception to the comment and responded that, as DOE has committed, KTI Agreements will be addressed before LA submittal.

Ms. Treichel indicated that the on-going scoping meetings on the railroad corridor need to be more formal; that the NRC should not start the 90-day review clock for LA acceptance until after January 1, 2005, due to the year-end holidays and that selected members of the public should have been allowed to observe the NRC 3-week technical evaluation of AMRs and the CAP. Ms. Treichel cited a November 2003 meeting in which Mr. Martin Virgilio (NRC) stated that an NRC policy toward public observation of NRC technical evaluations was being developed.

Lastly, Ms. Treichel questioned why the QARD revision level is being brought back to zero rather than calling it Revision 16.

Mr. Bill Reamer (NRC) responded to Ms. Treichel's statement concerning public observation of NRC technical evaluations by stating that the NRC has no plans to change the method by which technical evaluations are performed and that NRC has no plans to conduct additional technical evaluations of DOE's AMRs.

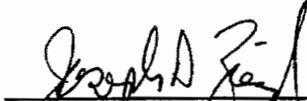
Closing Remarks

The NRC had no closing remarks.

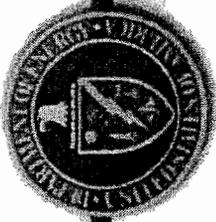
Mr. Arthur (DOE) concluded by thanking all for attending this meeting. The next Management Meeting will be held in Rockville, Maryland, in August. He stated that several technical exchanges are anticipated before August to keep the NRC aware of new and updated information for the project.

 Date: 6/16/04

C. William Reamer, Director
Division of High Level Waste Repository Safety
Office of Nuclear Material Safety
and Safeguards
U.S. Nuclear Regulatory Commission

 Date: 6/14/04

Joseph D. Ziegler, Director
Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy



U.S. Department of Energy
Office of Civilian Radioactive Waste Management

www.ocrwm.doe.gov

License Application Status

Presented to:
DOE/NRC Quarterly Management Meeting

Presented by:
Joseph D. Ziegler
Director, Office of License Application and Strategy
Office of Repository Development
U.S. Department of Energy

May 11, 2004
Las Vegas, Nevada

Topics for Discussion

- License Application (LA) Schedule Status
- LA Content and Level of Detail
- Key Technical Issues (KTIs) Agreement Status
- Recent and Near-Term Interactions
- Summary



License Application Schedule Status

<u>COMPONENT</u>	<u>PERCENT COMPLETE</u> <u>JANUARY 2004</u>	<u>PERCENT COMPLETE</u> <u>APRIL 2004</u>
KTI Agreement Addressed*	70%	70%
LA Document	14%	33%
Preclosure Safety Assessment	45%	62%
Total System Performance Assessment (TSPA)-LA	76%	81%
Design	<u>56%</u>	<u>79%</u>
TOTAL WEIGHTED % COMPLETE	54%	68%

100 percent of Key Technical Issue (KTI) Agreements will be addressed prior to submission of the LA

* Status reflected as percent of 293 agreements with DOE submittals (complete + 1/2 credit for partial)



License Application Schedule Status

(Continued)

February 19, 2004 Management Meeting

May 11, 2004 Management Meeting

<u>Total Datasets:</u>	1,387*	<u>Total Datasets:</u>	1,251*
• Qualified:	721 (52%)	• Qualified:	733 (59%)
• Being verified:	456 (33%)	• Being verified:	413 (33%)
• Being developed:	210 (15%)*	• Being developed:	105 (8%)*
 <u>Total Codes:</u>	 423*	 <u>Total Codes:</u>	 427*
• Qualified and verified:	67 (16%)	• Qualified and verified:	165 (39%)
• Qualified: (Legacy/re-testing)	344 (81%)	• Qualified: (Legacy/re-testing)	240 (56%)
• Developing/verifying:	12 (3%)	• Developing/verifying:	22 (5%)
 <u>Model Reports Directly Supporting LA: 65</u>		 <u>Model Reports Directly Supporting LA: 65</u>	
• Model Reports completed: 51 (78%)		• Model Reports completed: 60 (92%)	

*Estimated



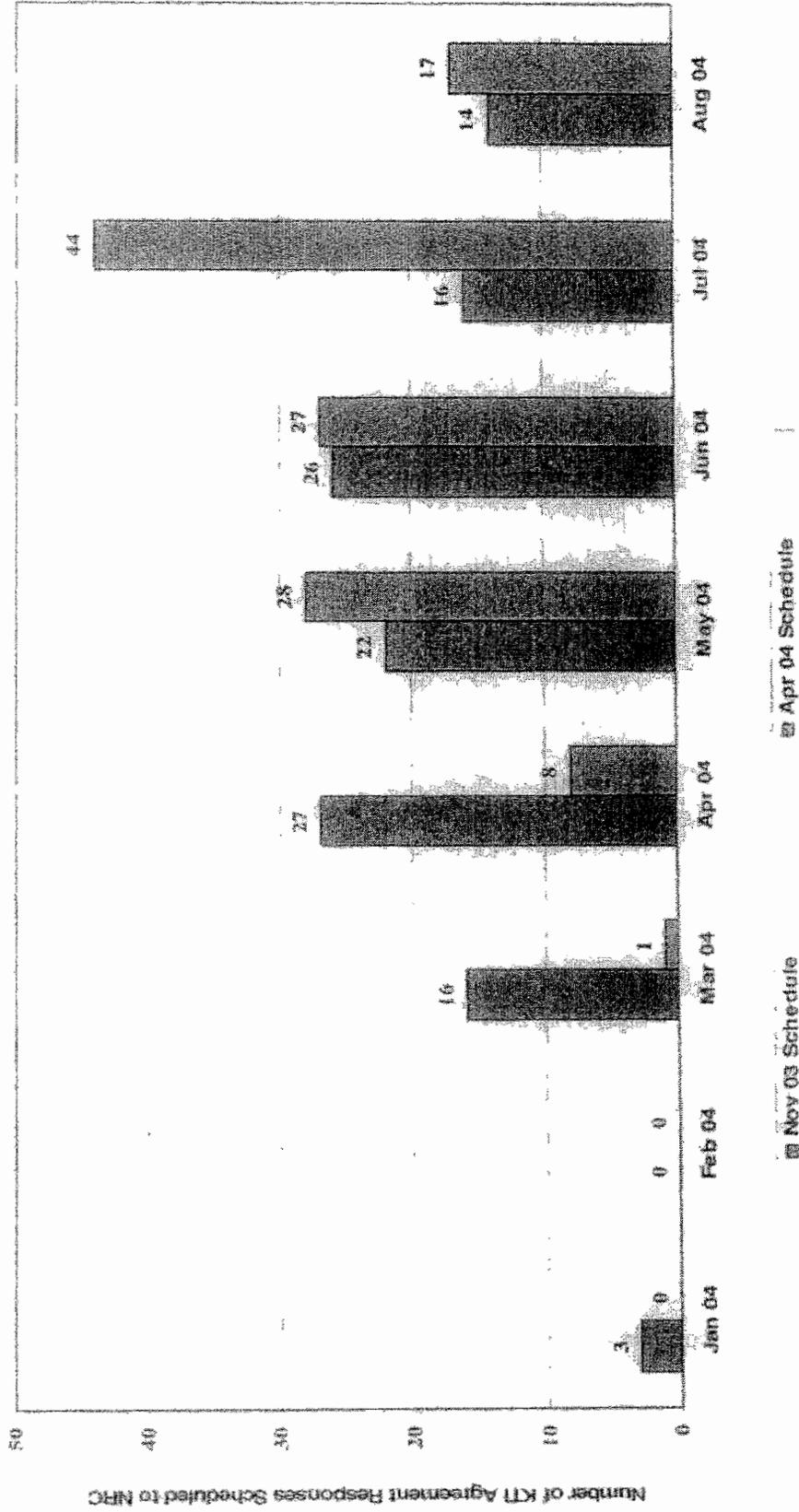
License Application Content and Level of Detail

- **Level of detail will be that which is necessary and sufficient to support a risk-informed review of preclosure safety and postclosure performance by the NRC and the determinations required for granting the construction authorization**
 - **The intent is to have the LA as stand-alone as possible and to give specific reference citations when needed**
 - **The NRC report of April 10, 2004 on the Technical Evaluations confirmed our understanding of the need for transparency and traceability in the LA**



Key Technical Issue Agreements

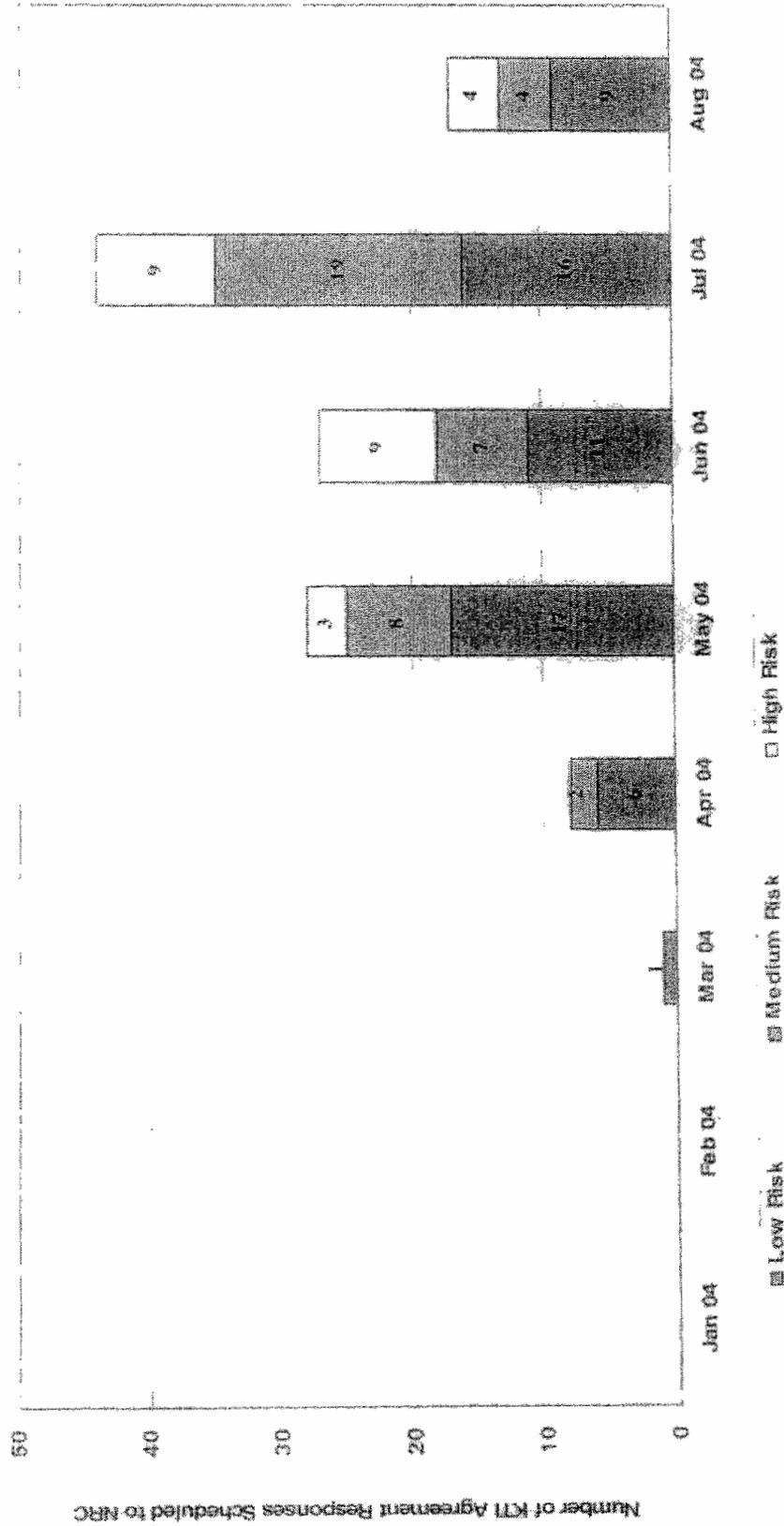
KTI Agreements - November 03 Schedule and April 04 Schedule Comparison



Key Technical Issue Agreements

(Continued)

KTI Agreements - NRC Risk Ranking Per Month (April 04 Schedule)



Key Technical Issues Agreements Status Summary

Reflects Activity through April 28, 2004

KTI ID	Agreements Reached	Agreements Submitted to NRC	Responses Submitted In NRC Review	Partial Responses Submitted	NRC Needs Additional Information	Responses Remaining to be Submitted	Agreements Complete
CLST	58	41	10	3	8	17	20
ENFE	41	37	18	5	1	4	13
GEN	1	1	0	1	0	0	0
IA	22	20	7	0	0	2	13
PRE	9	6	1	0	3	3	2
RDTME	23	4	2	1	0	19	1
RT	29	22	15	1	0	7	6
SDS	10	10	0	3	2	0	5
TEF	15	13	3	1	2	2	7
TSPAI	58	35	10	2	9	23	14
USFIC	27	25	4	0	3	2	18
Total =	293	214	70	17	28	79	99

Total responses to be submitted to NRC for closure (remaining responses, partial responses, and AIN's) = 124



Recent and Near-Term Interactions

- **May 3: Technical Exchange - Performance Indicators**
- **May 4: Quarterly Quality Assurance Meeting**
- **May 5: Technical Exchange - NRC's Technical Evaluation**
- **May 12: Technical Exchange - Items Important to Safety**
- **To be scheduled:**
 - High-level Decision Plan
 - Criticality
 - Igneous Survey
 - Aircraft Hazards
 - Repository Design and Thermal Mechanical Environment KTI Agreements
 - Preclosure Seismic
 - Preclosure Safety Assessment
 - TSPA-LA



Summary

- On target to submit the LA in December 2004
- NRC Technical Evaluation
- KTI Agreement response schedule is a challenge
 - Analysis and model reports
 - All agreements are scheduled to be addressed by August 2004



DOE EXHIBIT F

DOE EXHIBIT F



OFFICE OF THE GOVERNOR
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April 10, 2007

Honorable Dale Klein, Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

RE: *Inscrutability of DOE's TSPA for Yucca Mountain*

Dear Chairman Klein:

We understand that DOE may now be running or is about to run its Total System Performance Assessment ("TSPA") simulation program, the results of which will form the basis for DOE's license application for its proposed Yucca Mountain nuclear waste repository, which DOE plans to file with NRC by June 2008. Accordingly, Nevada has been paying special attention to the new TSPA. We have purchased the GoldSim computer model (for \$10,000) and have run various scenarios that arose in DOE's earlier Site Recommendation TSPA ("TSPA-SR").

After our detailed review, we thought it imperative to call your attention to a glaring and critical problem with DOE's TSPAs, including its newest one. In short, the TSPA *does not meet* the basic requirements of a calculation intended to form the basis for a government license. The model is so complicated and so large, and takes so many computers to run it, and it must be run so many times for the answer to converge, that it is fundamentally not capable of being checked by any third party, including the NRC Staff. We doubt there is even anyone in DOE who has a comprehensive command of the entire model.

We understand that NRC Staff has developed its own model (the "TPA"), less complicated than DOE's, in order to help Staff to understand the issues. But the Staff is not the applicant, and its model cannot be the primary ground for license approval. The application has to stand or fall on the validity of DOE's model and results. That model must be transparent and capable of being checked. NRC cannot license Yucca Mountain on results from a black box, and it should so inform DOE.

Nevada has been reviewing the record illustrating the development of the new TSPA. There are a variety of documents that attempt to decipher DOE's TSPA process. Perhaps the best is from a DOE/NRC Technical Exchange meeting on TSPA for Yucca Mountain held on October 24-25, 2006, where Mr. S. David Sevougian gave a presentation on DOE's "TSPA Model Development and Implementation." We and our experts have studied the slides from that presentation in detail, and they raise grave concerns that the hardware configuration adopted by DOE – involving hundreds of computers – is wholly inappropriate for a major safety-related license application that should be accessible for scrutiny by interested third parties reviewing the application, including NRC Staff, Nevada, other interested parties, the Nuclear Waste Technical Review Board, and NRC's Advisory Committee on Nuclear Waste.

Specifically, Slide 13 of the presentation (attached) shows the so-called "TSPA-wulf" configuration that is proposed by DOE for use in licensing. A footnote states that "TSPA-wulf" is a reference to the "Beowulf Project" developed at NASA's Goddard Space Center, after which this type of computer cluster configuration is named (*i.e.*, a "Beowulf Computer Cluster").

Nevada was most surprised to learn that the specific Beowulf Computer Cluster proposed by DOE for Yucca's licensing requires use of an immense cluster of computers and processors that no participant can reasonably expect to duplicate:

- A Windows 2000 File Server (Dell PowerEdge 6600):
- 30 Windows 2000 or 2003 Master Servers (Dell PowerEdge 4600s/2650s/2850s/2950s), described as job distribution servers and connected via a Terminal Services Client to unspecified PCs for off-site development:
- 752 Processors, comprising:
 - 240 Windows Server 2003 Processors (60 Dell PowerEdge 2950s);
 - 440 Windows 2000 Processors (220 Dell PowerEdge 2650s/2850s);
 - 36 Windows 2000 Processors (9 Dell PowerEdge 6450s);
 - 36 Windows NT 4.0 Processors (9 Dell PowerEdge 6350s).

In other words, simply running, or likely even inspecting, the structure of DOE's TSPA for Yucca requires the coordinated use of literally *hundreds of computers and processors and software*, some of which is already obsolete.

Worse, within this Byzantine hardware and software context, the GoldSim simulation software is then required to implement the enormously complicated TSPA, with the computations for individual portions of the simulation being distributed to the various processors noted above. GoldSim is an expensive proprietary software package that requires extensive training to operate. While Nevada has purchased this model and paid the annual fees, and has engaged experts devoted to understanding and running GoldSim, it is hard to imagine that we will be able to check DOE's work adequately, not

DOE EXHIBIT G

DOE EXHIBIT G

	<u>TITLE</u>	<u>STATUS</u>
1.	Waste Package Inventory Allocation Analysis	This document has been renamed. It is now the Initial Radionuclide Inventory, ANL-WIS-MD-000020 (DOC.20050927.0005). Rev 1-ACN1 was completed 9/27/07. On the LSN in full text (DN2002478989).
2.	Evaluate Probability of Post-Closure Criticality	Expected to be completed in about two weeks.
3.	Drift Degradation Analysis	This AMR will not be revised to support LA. The Drift Degradation Analysis to be cited in LA is Rev. 3, completed 7/28/06 (DOC.20060731.0005). On the LSN in full text (DN2002293941).
4.	Atmospheric Dispersal and Deposition of Tephra from a Potential Volcanic Eruption at YM NV	Revision completed early. Ash Plume AMR to be cited in LA is Rev. 3, completed 10/04/07 (DOC.20071010.0003). On the LSN in full text (DN2002479954).
5.	Magma Dynamics at YM, Nevada	A separate AMR will not to be completed to support LA. This analysis was included in Dike/Drift Interactions AMR. Rev 2 of this AMR was completed on 10/04/07. (DOC.20071009.0015). On the LSN in full text (DN2002480301).
6.	The Development of the TSPA-LA FEPs - Criticality	Replaced by Evaluate Probability of Post-Closure Criticality AMR, which is about to be completed. See #2 above.
7.	TSPA Model/Analysis for the LA	Version for draft Repository SEIS completed. (This is part of the Draft SEIS references that have been provided to the State and are being processed onto the LSN.) Version for LA scheduled to be delivered for DOE acceptance review by 1/14/08.
8.	Near Field Chemistry Model	Included as appendix to EBS Physical and Chemical Environment AMR, Rev. 6, completed 8/31/07 (DOC.20070907.0003). On the LSN in full text (DN2002452948).
9.	Thermal Management Flexibility Analysis	Slated for completion 11/16/07. (Note: 2006 date in schedule was a typo.)

DOE EXHIBIT H

DOE EXHIBIT H

Shebelskie, Michael

From: Charles Fitzpatrick [cfitzpatrick@nuclearlawyer.com]
Sent: Thursday, October 25, 2007 3:41 PM
To: Shebelskie, Michael
Cc: 'Charles J. Fitzpatrick'; 'Martin Malsch'; EGANPC@aol.com
Subject: Missing AMRs
Attachments: Missing AMRs.pdf

Mike – Charlie asked me to forward this to you. It is a list indicating (with arrows in the right margin) those AMRs which we cannot locate on LSN. Please let us know if, and where, we can find any of them on LSN.

Thank you.

Susan Montesi

Assistant to Charles J. Fitzpatrick
Egan, Fitzpatrick & Malsch, PLLC

Phone: 210.820.2669

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DOE EXHIBIT I

DOE EXHIBIT I

Shebelskie, Michael

From: Shebelskie, Michael
Sent: Friday, October 26, 2007 5:39 PM
To: 'Charles Fitzpatrick'; Martin Malsch
Subject: AMR schedule
Attachments: DOC014.PDF

Charlie and Marty,

Attached is a chart that provides the current status of the 9 AMRs on the list you sent me yesterday. Please let me know if you have any questions.

Mike.

DOE EXHIBIT J

DOE EXHIBIT J

UNITED STATES
NUCLEAR WASTE TECHNICAL REVIEW BOARD

FALL BOARD MEETING

September 19, 2007

Atrium Suites Hotel
4255 Paradise Road
Las Vegas, Nevada 89109

1 and the wet handling facility and the receipt facility.

2 We then set out a plan, both schedule and products,
3 to produce approximately 1,300 products between the three
4 engineering projects and the preclosure safety analysis that
5 would be either direct references in the license application,
6 or, for instance, if we had a drawing and we needed to do a
7 calc to support it, then we considered that a licensing
8 application support product. So, we identified all those
9 products in conjunction with licensing and preclosure safety
10 analysis, and we've been proceeding to issue those documents,
11 some of them in parallel with other activities. So, we've
12 issued more than a thousand, and we have about--well, we can
13 do the math--a little less than 300 to go.

14 We've also identified about 100 of them that even
15 though they're issued, that because of changes, the decision
16 to borate the wet handling facility pool, some other changes
17 about not using programmable logic controllers for certain
18 functions, required us to change about a hundred of those
19 drawings. So, we're in the process now of meeting on
20 essentially a daily basis with Preclosure Safety Analysis to
21 make sure that our design syncs up with their preclosure
22 safety analysis, that syncs up with the license application.

23 So, we're into configuration control at this point,
24 and we're coming up with a design that meets the license
25 application requirements.

1 GARRICK: Okay. One other question. In the
2 conventional engineering world, they have metrics for
3 indicating where the design is from the standpoint of
4 nearness to completeness, metrics like preliminary design,
5 Title 1, Title 2, Title 3, whatever metric you want to use.
6 Can you tell us where we are now with respect to the design
7 and where you expect to be, say, at the time of the filing of
8 the license application?

9 SLOVIC: At the time of the completion of the license
10 application, we expect to be, and don't quote me these
11 numbers, 35 to 40 percent done on important to safety system
12 structures and components, and probably in the 25 to 30
13 percent on the supporting systems. So, we will have a
14 structural design. We will have designs of the important to
15 safety systems. We will have designs of the electrical
16 systems that we need. We will have designs for things like
17 hot water cooling systems for the buildings, but they won't
18 be to the level of detail that they will for the important to
19 safety structure systems and components.

20 ARNOLD: Henry?

21 PETROSKI: Petroski, Board.

22 So, in all these guidelines and drawings that
23 you're showing us, are these just conceptual, or have any
24 calculations gone into--

25 SLOVIC: No, these are reflective of the design as it's