

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of:

U.S. DEPARTMENT OF ENERGY

(License Application for Geologic Repository  
at Yucca Mountain)

Docket No. 63-001

ASLBP Nos. 09-876-HLW-CAB-01

09-877-HLW-CAB-02

09-878-HLW-CAB-03

March 5, 2009

---

**AMENDED PETITION OF THE TIMBISHA SHOSHONE YUCCA MOUNTAIN  
OVERSIGHT PROGRAM NON-PROFIT CORPORATION  
TO INTERVENE AS A FULL PARTY**

---

Arthur J. Harrington, Esq.  
Douglas M. Poland, Esq.  
Steven A. Heinzen, Esq.

COUNSEL FOR TIMBISHA SHOSHONE  
YUCCA MOUNTAIN OVERSIGHT PROGRAM  
NON-PROFIT CORPORATION

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

**ATOMIC SAFETY AND LICENSING BOARD**

In the Matter of:

U.S. DEPARTMENT OF ENERGY

(License Application for Geologic Repository  
at Yucca Mountain)

Docket No. 63-001

ASLBP Nos. 09-876-HLW-CAB-01  
09-877-HLW-CAB-02  
09-878-HLW-CAB-03

March 5, 2009

**AMENDED PETITION OF THE TIMBISHA SHOSHONE YUCCA MOUNTAIN  
OVERSIGHT PROGRAM NON-PROFIT CORPORATION  
TO INTERVENE AS A FULL PARTY**

**1. Introduction**

**A. Request and Party Identity**

The Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation (“TOP”) hereby petitions for a formal hearing to be held on the application of the Department of Energy (“DOE”) for a construction authorization for its proposed high-level radioactive waste repository at Yucca Mountain, Nevada (hereinafter referred to as the “proceeding”). TOP also petitions to intervene as a full party to this proceeding. The name of the party and its address (and related contact information) are as follows:

Name of Party: Timbisha Shoshone Yucca Mountain  
Oversight Program Non-profit Corporation

Address: Joe Kennedy  
Board Member and Executive Director  
P.O. Box 4639  
Pahrump, NV 89041  
NEWE SOGOBIA

Telephone: (775) 751-7633

E-mail: Joekennedy08@live.com

TOP designates Joe Kennedy, or such legal counsel as he designates, as its single representative for the hearing.

**B. Timeliness**

DOE's application was noticed for hearing on October 22, 2008 (73 Fed. Reg. 63029, 10/22/2008), and TOP's original Petition to Intervene was timely filed within 60 days of publication of that notice.

**(1) *The Amended Petition is timely under 10 C.F.R. § 2.309(f)(2).***

This Amended Petition is timely submitted in accordance with 10 C.F.R. § 2.309(f)(2) because it is submitted within 30 days of the date on which new and material information on which the amended contentions are based became available. *See* CAB Case Management Order #1, at 3-4 (January 29, 2009). In particular, the factual information upon which the amended contentions are based is contained within the declarations or affidavits of tribal members Barbara Durham, Pauline Esteves, and Joe Kennedy, as well as Professor Catherine Fowler, a cultural expert on the Timbisha Shoshone Tribe (the "Timbisha"), which are on the LSN and cited in this Amended Petition.

**(2) *Alternatively, the Amended Petition should be granted based on the factors in 10 C.F.R. § 2.309(c).***

In the alternative, if the Amended Petition is deemed to be non-timely, then the Amended Petition should be granted in accordance with 10 C.F.R. § 2.309(c) for the following reasons, which are set forth in more detail in the simultaneously-filed Motion for Leave to Amend Petition to Intervene:

(i) *There is “good cause” to grant the Amended Petition (10 C.F.R. § 2.309(c)(i)).*

Good cause exists for TOP’s failure to timely file the Amended Petition. Although the Timbisha was granted “Affected Indian Tribe” (“AIT”) status on June 29, 2007, it was denied funding for nearly 15 months after being certified as an AIT and therefore lacked the financial resources to retain counsel to assist it in formulating and filing the contention in this Amended Petition. (Affidavit of Joe Kennedy (“Kennedy Aff.”) ¶ 12, attached hereto as Attachment 1.) Moreover, the DOE has an obligation pursuant to federal statutes, Executive Orders, and its own internal policies that require it to consult with Timbisha on potential impacts of DOE’s proposed geologic repository on the Timbisha’s cultural, historic, religious, and other resources. (*See infra* pp. 34-40). DOE’s failure to consult with Timbisha significantly harmed TOP’s ability to participate meaningfully in this proceeding, including TOP’s ability to investigate the potential effects on Timbisha resources and interests, and prepare its contentions by the December 22, 2008 deadline. Given DOE’s failure to consult, which constitutes a violation of federal statutes and other authorities that the NRC must not overlook pursuant to its own obligations under the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.* (“NEPA”) (*see generally* 10 C.F.R. Part 51), as well as the NRC’s own trust obligations to Indian tribes under federal law (*see infra* pp. 34-40), TOP should not be precluded from being granted full-party status based on the alleged inadequacies of its original Petition.

(ii) *The nature of TOP’s right to be made a party (10 C.F.R. § 2.309(c)(ii)).*

The nature of the right under which TOP seeks to participate as a party is as that of an AIT, which confers a federally-recognized right to participate as a full party in this proceeding. TOP also has a right to participate in a representative capacity for those Timbisha members who are affiliated with TOP and, if the license application is granted, will suffer harm to their

cultural, historic, and religious resources from contamination of Death Valley springs caused by effluent released from DOE's proposed geologic repository. If TOP is permitted to participate as a party and present its contentions, NRC can take actions that would cure DOE's failure to consider and analyze the effects that the geologic repository will have on the Timbisha's cultural, historic, and religious interests, including requiring DOE to consider those effects and potential ways to mitigate them, as well as requiring DOE to fulfill its obligation to consult with the Timbisha. (*See generally* TOP-NEPA-01, *infra* pp. 18-32; TOP-MISC-01, *infra* pp. 34-43). These interests of the Timbisha, who are members of TOP, fall squarely within those interests that NEPA is designed to protect.

(iii) *The nature and extent of TOP's interests in the proceeding (10 C.F.R. § 2.309(c)(iii)).*

The Timbisha has significant cultural, historic, religious, and other interests at stake in the proceeding that will be directly and severely impacted if TOP is not permitted to participate as a full party. Specifically, the DOE's environmental impact statements concede that contamination from a high-level waste repository at Yucca Mountain may discharge at the Death Valley springs, which hold cultural, historic, and religious significance that are central to the Timbisha. (*See infra* pp. 24-32; FSEIS<sup>1</sup>, Vol. III at CR-324; *see also* FSEIS §§ 3.1.4.2.1, 5.4, & Fig. 3.8; FEIS<sup>2</sup> Fig. 3-15.) Federal statutes guarantee that the Timbisha will have continued use of water in its homeland for traditional tribal purposes. (*See infra* pp. 19-24.) Other federal

---

<sup>1</sup> LSN #: DEN001593669, Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, Summary, Vol. I, II, and III, June 1, 2008 ("FSEIS")

<sup>2</sup> LSN #: DOE2002073507, Final Environmental Impact Statement for a Geological Repository for the Disposal of Spent Nuclear Fuel and High-level Radioactive Waste at Yucca Mountain, Nye County, Nevada, Feb. 1, 2002 ("FEIS").

authorities also confer on DOE an obligation to consult with the Timbisha on any potential impacts to the Timbisha's cultural and historic resources. (*See infra* pp. 35-40.)

(iv) *An order in this proceeding would significantly impact the interests of TOP and those that it represents (10 C.F.R. § 2.309(c)(iv)).*

Any order that might be entered in this proceeding that would grant the DOE a license to operate the Yucca Mountain repository would have a devastating effect on Timbisha cultural and historic interests; would strip the Timbisha of its federally-conferred rights to continue traditional tribal religious and cultural activities associated with the springs; and would eviscerate the Timbisha's statutory rights to be consulted by the DOE on those impacts. *See generally* Declaration of Barbara Durham ("Durham Decl.")<sup>3</sup>; Declaration of Pauline Esteves ("Esteves Decl.")<sup>4</sup>; Declaration of Prof. Catherine Fowler ("Fowler Decl.")<sup>5</sup>.

(v) *There are no other means to protect TOP's interests (10 C.F.R. § 2.309(c)(v)).*

There are no other means by which the cultural, historic, religious, and other interests of the Timbisha will be protected if TOP is not permitted to intervene as a full party. DOE already has breached its obligations under NEPA and federal regulations to consider and evaluate the impacts of the contamination of the Death Valley springs on Timbisha cultural, historic, religious, and other interests, including federally-conferred and guaranteed rights to continued traditional tribal religious and cultural activities associated with the springs. (*See infra* pp. 19-24.) DOE also has failed to satisfy its statutory obligations to consult with the Timbisha on those impacts. (*See infra* pp. 35-40.)

---

<sup>3</sup> LSN #: TOP000000010, Declaration of Barbara Durham, Feb. 21, 2009 ("Durham Decl.").

<sup>4</sup> LSN #: TOP000000011, Declaration of Pauline Esteves, Feb. 21, 2009 ("Esteves Decl.").

<sup>5</sup> LSN #: TOP000000012, Declaration of Catherine S. Fowler, Feb. 21, 2009 (Fowler Decl.).

(vi) *There are no other existing parties to represent TOP's interests (10 C.F.R. § 2.309(c)(vi)).*

Similarly, there are no other existing parties to this proceeding that will represent the Timbisha's unique cultural, historic, religious, and other interests that will be affected if the requested license is issued. The license applicant, DOE, already has breached its obligations under NEPA and federal regulations to consider and evaluate the impacts of the contamination of the Death Valley springs on Timbisha cultural, historic, religious, and other interests, and it also has failed to satisfy its statutory obligations to consult with the Timbisha on those impacts. Although there are other entities that have petitioned to intervene as parties in this proceeding, the NRC has not yet ruled on their petitions. Indeed, the DOE has opposed the participation of *all* petitioners in this proceeding, and the NRC Staff has opposed the intervention of all proposed parties except the State of Nevada and Nye County, Nevada, neither of which share the same unique interests as the Timbisha. Moreover, even if the petitions of other potential parties are granted, none of those parties share the same cultural, historic, religious, and other interests in the Death Valley springs that are unique to the Timbisha, nor would they be impacted in the way that the Timbisha will be impacted by the contamination of the Death Valley springs. Thus, those other entities do not have the same unique interests and rights at stake as do the Timbisha.<sup>6</sup>

(vii) *Granting the Amended Petition will not broaden or delay this proceeding (10 C.F.R. § 2.309(c)(vii)).*

Granting the Amended Petition containing one amended and one new contention will not broaden the issues or delay this proceeding; in fact, it will narrow the issues and expedite the

---

<sup>6</sup> A second petition to intervene, filed by an entity calling itself the "Timbisha Shoshone Tribe," would not protect the interests and resources that TOP's Amended Petition seeks to protect even if it is granted because it ignores the impact of the proposed geologic repository on the significant cultural, historic, religious and other resources and interests of the Timbisha, and especially those resources and interests in and around the Death Valley springs.

proceeding. TOP's original Petition already raised the NEPA environmental contention that is the first of two contentions in this Amended Petition; the amended contention in the Amended Petition simply expounds on the original contention. The Amended Petition adds a single new contention, which involves the DOE's breach of its duty to consult with the Timbisha. In addition, the Amended Petition eliminates two of the contentions that had been raised in the original Petition, thus narrowing the overall issues in this proceeding.

*(viii) TOP's participation is crucial to developing a sound record (10 C.F.R. § 2.309(c)(viii)).*

Finally, TOP's participation in this proceeding, including the presentation of the contentions raised in this Amended Petition, is crucial to the integrity and soundness of the decision that the NRC must make in this proceeding. The amended contentions assert that DOE has failed to satisfy its obligations under NEPA and federal regulations to consider and analyze significant impacts that the proposed geologic repository will have on cultural, historic, religious, and other interests that are particular and unique to the Timbisha, and that DOE furthermore has failed to satisfy its statutory obligations to consult with the Timbisha on those impacts. In addition, the NRC itself is statutorily obliged to ensure that this proceeding does not violate federal statutes. If the NRC does not permit the Timbisha to participate as a full party in this proceeding, the record will be devoid of facts and considerations relating to the impacts that the proposed geologic repository will have on the Timbisha's cultural, historic, religious, and other interests, as well as the DOE's failure to satisfy its consultation obligations to the Timbisha. Full presentation and consideration of those facts and considerations are essential to a legitimate and legal decision by the NRC on the DOE's license application.

### C. Standing

***(1) As an affected Federally-recognized Indian Tribe, TOP has standing as of right to participate as a party under 10 C.F.R. § 2.309(d)(2).***

An AIT presumptively has standing to participate as a party without being required to make any further showing. The presumption of standing for an “affected Federally-recognized Indian Tribe,” which is codified at 10 C.F.R. § 2.309(d)(2)(i), turns on the definition of AIT in 10 C.F.R. § 63.2:

[A]ny Indian Tribe within whose reservation boundaries a repository for high-level radioactive wastes or spent fuel is proposed to be located; or whose Federally-defined possessory or usage rights to other lands outside of the reservation’s boundaries arising outside of Congressionally-ratified treaties or other Federal law may be substantially and adversely affected by the location of the facility if the Secretary of the Interior finds, on the petition of the appropriate government officials of the Tribe, that the effects are both substantial and adverse to the Tribe.

Once AIT status is established for the Timbisha, the Licensing Board and, ultimately, the NRC, “shall not require further demonstration of standing.” 10 C.F.R. § 2.309(a)(2)(ii). Thus, the Timbisha’s showing of AIT status is sufficient evidence of its standing.

For more than a decade the Timbisha has sought to have a meaningful voice in the deliberations over the DOE’s proposed high-level waste geologic repository at Yucca Mountain. In 2007, the United States government granted the Timbisha the status of AIT under 10 C.F.R. § 63.2 in the Yucca Mountain licensing proceedings. (*See* Letter from Department of the Interior, Assistant Secretary – Indian Affairs Carl J. Artman to Chairman Joe Kennedy of Timbisha Shoshone Tribe, June 29, 2007 at 4.<sup>7</sup>) The Timbisha is the sole AIT of the approximately 17 tribes in the region. Its AIT status not only garners the Timbisha a voice in

---

<sup>7</sup> LSN #: TBS000000002, Amended Petition Seeking Determination of Affected Indian Tribe Status Under the Nuclear Waste Policy Act, July 29, 2007, pp. 1-4.

this proceeding, it guarantees the Timbisha federal funding to research and document for the purposes of this proceeding the impact that the proposed geologic repository will have on its homelands, government, and culture.

The Timbisha's Constitution bestows on its five-member Tribal Council the authority to charter and regulate corporations and other entities. (*See* Timbisha Shoshone Const. Art. V, § 2(h).<sup>8</sup>) In accordance with that authority, the Tribal Council adopted a Non-Profit Corporations Code as a means to create corporations to advance the best interests of the Timbisha and to which the Tribal Council could delegate day-to-day authority and oversight over specific matters. (Timbisha Shoshone Tribal Resolution 2008-29.<sup>9</sup>) Exercising that authority, on November 25, 2008, the Tribal Council, with Joseph Kennedy as the Tribal Council Chairman, created TOP to represent the Timbisha's interests in this proceeding. (Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation Articles of Incorporation, Nov. 25, 2008.<sup>10</sup>)

In creating TOP, the Tribal Council specifically delegated to TOP the authority and responsibility to take the following actions with regard to these proceedings: to advance the oversight of the Yucca Mountain Repository Project on behalf of the Timbisha; to ensure that the Timbisha participates fully in the Yucca Mountain oversight activities; to ensure that future generations of Timbisha have the means to continue the Yucca Mountain oversight activities; and to receive funds from the federal government pursuant to the Nuclear Waste Policy Act and other laws or grants to advance the aforementioned purposes. (*Id.*; *see also* Corporate Bylaws

---

<sup>8</sup> LSN #: TOP000000002, Timbisha Shoshone Tribe, Timbisha Shoshone Constitution, Feb. 17, 1986 ("Timbisha Shoshone Const.").

<sup>9</sup> LSN #: TOP000000003, Timbisha Shoshone Indian Tribe Tribal Council Resolution 2008-29, Nov. 25, 2008.

<sup>10</sup> LSN #: TOP000000006, Articles of Incorporation for the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation, Nov. 25, 2008.

for the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation at 1.<sup>11</sup>) Thus, when TOP communicates with the United States government, it does so as the voice, and with the support, of the Timbisha. Indeed, the Timbisha expects TOP's government-to-government communications to be accorded the same importance as communications between the Timbisha's Chairman and the federal government.<sup>12</sup>

To enable TOP to carry out these functions, the Tribal Council has enacted several resolutions. **First**, the Tribal Council resolved that all funds received from the federal government through the Nuclear Waste Fund, and any other funds received from any source for the specific use of oversight or opposition to the Yucca Mountain Project, be immediately or directly deposited into a separate bank account designated solely for this purpose, in accordance with Article VI, Section 4 of TOP's Corporate Bylaws.<sup>13</sup> **Second**, it determined that funds in this account will be used for oversight of the Yucca Mountain Project and will be accessible only by TOP. **Third**, as long as TOP exists and is operating with the powers delegated to it by the Tribal Council, these funds may not be used for any other purpose or by any other division of the Timbisha, nor may the Timbisha access the funds for any other purpose. This account is separate

---

<sup>11</sup> LSN #: TOP000000007, Corporate Bylaws for the Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation, Nov. 25, 2008 ("TOP's Corporate Bylaws").

<sup>12</sup> This delegation of responsibility is no different than the United States Congress delegating its responsibilities for its government-to-government relationship with tribes to the trustee-delegate, the executive branch of the United States Government.

<sup>13</sup> Article VI, Section 4 of TOP's Corporate Bylaws states: "All Funds of the Corporation shall be deposited into the Timbisha Shoshone Yucca Mountain Oversight Project Trust, with such bank or other depository as the TSYMOP Board of Directors may select. Trust funds are to be used for the sole purpose of overseeing the YMP [Yucca Mountain Project] on behalf of the Tribe and its members. Trust funds may only be withdrawn by the fiscal agent, if any President and Secretary, with the President and Secretary having forwarded a jointly executed document to the bank or financial institution where the Trust is located, as evidence of the TSYMOP Board of Directors intent to withdraw such funds for YMP oversight purposes."

The original Corporate Bylaws uses the term "Executive Director" instead of "President." However, "Executive Director" was changed to "President" through Timbisha Shoshone Yucca Mountain Oversight Program Non-Profit Corporation Corporate Resolution 2009-02. LSN #: TOP000000005, Feb. 9, 2009.

and apart from the general operating funds of the Timbisha's government and may not be accessed for any purpose other than that of TOP, in accordance with Article VI, Section 4 of the By-Laws. (*See generally* Corporate Bylaws Art. VI, § 4.)

The very creation of TOP evinces the Timbisha's intention to participate fully in this proceeding and to ensure that participation by segregating funds that the Timbisha receives for use on the Yucca Mountain Project for TOP to use for that purpose alone. Moreover, the bulwarks surrounding TOP insulate it from political ebbs and flows that may occur in any dynamic political environment. These bulwarks ensure that the funds the U.S. government gives to the Timbisha for overseeing the Yucca Mountain Project are used for their proper and stated purpose as mandated by the Timbisha and federal law. Because it is an affected federally-recognized Indian Tribe, TOP has standing as a matter of right and is entitled to request a hearing and be admitted as a full party to the proceeding under 10 C.F.R. § 2.309(d)(2) and section III, paragraph A of the Notice of Hearing.

**(2) TOP also has representational standing to intervene under 10 C.F.R. § 2.309(d)(1) as a matter of right because its members have cultural, historic, religious, and other interests that will be affected by the decision or order that the Licensing Board issues on the license application.**

In addition to meeting the standing requirements to intervene as a full party with AIT status, and as a separate basis for standing in this proceeding, TOP has standing to participate as a full party because it meets the standing requirements of 10 C.F.R. § 2.309(d)(1)(i)-(iv).

**First**, TOP meets the requirements of Section 2.309(d)(1)(i). (*See supra* Part I.A.)

**Second**, TOP meets the requirements of Section 2.309(d)(1)(ii) because it is both an AIT and, if the license application is granted, members of the Timbisha represented by TOP will suffer harm to their cultural, historic, religious, and other resources from contamination of Death Valley springs caused by effluent released from DOE's proposed geologic repository. If TOP is

permitted to participate as a party and present its contentions, NRC can take actions that would cure DOE's failure to consider and analyze the effects that the geologic repository will have on the Timbisha's cultural, historic, and religious interests, including requiring DOE to consider those effects and potential ways to mitigate them, as well as requiring DOE to fulfill its obligation to consult with the Timbisha. (*See generally* TOP-NEPA-01, *infra* pp. 18-32; TOP-MISC-01, *infra* pp. 34-43). These interests of the Timbisha, who are members of TOP, fall squarely within those interests that NEPA is designed to protect.

**Third**, TOP meets the requirements of Section 2.309(d)(1)(iii). TOP, as a representative of members of the Timbisha, has significant, long-standing, and federally guaranteed interests at stake in the proceeding that will be directly and severely impacted if TOP is not permitted to participate as a full party. Specifically, the DOE's environmental impact statements concede that contamination from a high-level waste repository at Yucca Mountain may discharge at the Death Valley springs, which hold cultural, historic, and religious significance that are central to the Timbisha. (*See infra* pp. 24-29.) Federal statutes guarantee that the Timbisha will have continued use of water in its homeland for traditional tribal purposes. Other federal statutes also confer on DOE an obligation to consult with the Timbisha on any potential impacts to the Timbisha's cultural and historic resources. TOP has an interest in ensuring that all of the Timbisha's cultural, historic, religious, and other resources and rights that will be affected by the issuance of the proposed license are fully presented to and considered by the Licensing Board in ruling on the license application.

**Fourth**, TOP meets the requirements of Section 2.309(d)(1)(iv). Any order that might be issued in this proceeding granting the license application potentially would have a devastating effect on Timbisha cultural, historic, and religious interests; would strip the Timbisha of its

federally conferred rights to use water for traditional tribal purposes; and would eviscerate the Timbisha's statutory rights to be consulted by the DOE on those impacts, as well as the statutory protection under NEPA requiring NRC to ensure that DOE did not violate its statutory duties in the process of seeking a license for the geologic repository.

**(3) *In the alternative, TOP should be granted standing through discretionary intervention under 10 C.F.R. § 2.309(e).***

If TOP is not permitted to intervene as a party in this proceeding as a matter of right under 10 C.F.R. § 2.309(d)(1), the Licensing Board should permit TOP to intervene as a party in this proceeding as a matter of discretion. Each of the requirements of Section 2.309(e) is met (or, upon the Licensing Board's determination that there is at least one petitioner with standing and at least one admissible contention, will be met) here.

*First*, TOP's participation may reasonably be expected to assist in developing a sound record. The amended contentions assert that DOE has failed to satisfy its obligations under NEPA and federal regulations to consider and analyze significant impacts that the proposed geologic repository will have on cultural, historic, religious, and other interests that are particular and unique to the Timbisha, and that DOE furthermore has failed to satisfy its statutory obligations to consult with the Timbisha on those impacts. In addition, the NRC itself is statutorily obliged to ensure that this proceeding does not violate federal statutes. If the NRC does not permit the Timbisha to participate as a full party in this proceeding, the record will be devoid of facts and considerations relating to the impacts that the proposed geologic repository will have on the Timbisha's cultural, historic, religious, and other interests, as well as the DOE's failure to satisfy its consultation obligations to the Timbisha. Full presentation and consideration of those facts and considerations are essential to a legitimate and legal decision by the NRC on the DOE's license application. *See* 10 C.F.R. § 2.309(e)(1)(i).

**Second**, TOP, as a representative of members of the Timbisha, has significant, long-standing, and federally-guaranteed interests at stake in the proceeding that will be directly and severely impacted if TOP is not permitted to participate as a full party. Specifically, the DOE's environmental impact statements concede that contamination from a high-level waste repository at Yucca Mountain may discharge at the Death Valley springs, which hold cultural, historic, and religious significance that are central to the Timbisha. Federal statutes guarantee that the Timbisha will have continued use of water in its homeland for traditional tribal purposes. Other federal statutes also confer on DOE an obligation to consult with the Timbisha on any potential impacts to the Timbisha's cultural and historic resources. TOP has an interest in ensuring that all of the Timbisha's cultural, historic, religious, and other resources and rights that will be affected by the issuance of the proposed license are fully before and considered by the Licensing Board in ruling on the license application. *See* 10 C.F.R. § 2.309(e)(1)(ii).

**Third**, as set forth above and in the proposed contentions, any order that might be issued in this proceeding granting the license application potentially would have a devastating effect on Timbisha cultural, historic, and religious interests; would strip the Timbisha of its federally-conferred rights to use water for traditional tribal purposes; and would eviscerate the Timbisha's statutory rights to be consulted by the DOE and NRC on those impacts. *See* 10 C.F.R. § 2.309(e)(1)(iii).

In addition, none of the factors set forth in Section 2.309(e)(2) weighing against allowing intervention applies here.

**First**, there are no other means by which the cultural, historic, and religious interests of the Timbisha that TOP seeks to bring before the Licensing Board will be protected in the absence of TOP's participation as a full party. DOE's environmental impact statements concede that

contamination from a high-level waste repository at Yucca Mountain may discharge at the Death Valley springs, which hold cultural, historic, and religious significance that are central to the Timbisha. Federal statutes and regulations require those effects to be considered and analyzed in this proceeding, both by DOE and then, separately, by NRC. In addition, other federal statutes, agency policies, and Executive Orders confer on DOE an obligation to consult with the Timbisha on any potential impacts to the Timbisha's cultural and historic resources. Those procedural safeguards that TOP has through this proceeding to protect the interests of the Timbisha people, including the requirement for DOE to consider and present alternative scenarios that would prevent or minimize impacts on Timbisha cultural, historic, and religious resources, are not available through other means. *See* 10 C.F.R. § 2.309(e)(2)(i).

***Second***, none of the existing or other potential parties to this proceeding will adequately protect the interests that TOP seeks to protect through its Amended Petition. As stated above, DOE, already has breached its obligations under NEPA and federal regulations to consider and evaluate the impacts of the contamination of the Death Valley springs on Timbisha cultural, historic, religious, and other interests, and it also has failed to satisfy its statutory obligations to consult with the Timbisha on those impacts. Although there are other entities that have petitioned to intervene as parties in this proceeding, their petitions have not yet been granted. Indeed, the DOE has opposed the participation of all proposed intervenors in this proceeding, and the NRC Staff has opposed the intervention of all proposed parties except the State of Nevada and Nye County, Nevada, neither of which share the same unique interests as the Timbisha. Moreover, even if the petitions of other potential parties are granted, none of those parties share the same cultural, historic, religious, and other interests in the Death Valley springs that are unique to the Timbisha, nor would they be impacted in the way that the Timbisha will be

impacted by the contamination of the Death Valley springs. Thus, those other entities do not have the same unique interests and rights at stake as do the Timbisha. *See* 10 C.F.R.

§ 2.309(e)(2)(ii).

*Third*, granting TOP the right to discretionary intervention will not broaden the issues or delay this proceeding; in fact, it will narrow the issues and expedite the proceeding. TOP's original Petition already raised the NEPA environmental contention that is the first of two contentions in this Amended Petition; the amended contention in the Amended Petition simply expounds on the original contention. The Amended Petition adds a single new contention, which states that DOE has breached a duty to consult with the Timbisha. In addition, the Amended Petition eliminates two of the contentions that had been raised in the original Petition, thus narrowing the overall issues in this proceeding. *See* 10 C.F.R. § 2.309(e)(2)(iii).

#### **D. Hearing Requested**

TOP hereby formally requests a formal adjudicatory hearing on each of its contentions herein submitted in accordance with Section 189a(1)(A) of the Atomic Energy Act of 1954 ("AEA"), as amended, Section 114(d) of the Nuclear Waste Policy Act of 1982 ("NWPA"), as amended, 5 U.S.C. § 554-558, and 10 C.F.R. Part 2, Subparts C and J. In addition, TOP requests to participate in the resolution of any and all uncontested issues to the same extent, and in the same manner, as DOE or any other party may be allowed to participate in the resolution of those issues.

#### **E. Subpart J**

TOP has substantially and timely complied with the provisions of Subpart J, including Section 2.1003 and Section 2.1009, in that it has designated an official responsible for administration of its responsibility to provide electronic files of Documentary Material;

established procedures to implement the requirements of Section 2.1003; provided training to its staff on the procedures for implementation of the responsibility to provide electronic files of Documentary Material; has expended substantial time and good-faith effort to ensure that it has made all its Documentary Material publicly available; and its responsible designated official has certified that to the best of his knowledge, the Documentary Material specified in Section 2.1003 has been identified and made electronically available.

TOP submitted an adequate and timely LSN certification on December 22, 2008, and adequate and timely supplemental certification on February 28, 2009. Moreover, TOP participated in the pre-application phase of this proceeding. (*See* Att. 1, Kennedy Aff. ¶¶ 11-12.) Therefore, TOP has complied fully with the provisions of section II, paragraphs 2, 3, and 7 of the Notice of Hearing, there is no “failure . . . to participate as a potential party in the pre-License Application phase under Subpart J of [10 C.F.R. Part 2],” and correspondingly, there is no basis for limiting or denying full party status to TOP under 10 C.F.R. § 2.309(a).

#### **F. Joint Contentions**

At this time, TOP has no joint contentions. TOP might identify joint contentions later, in accordance with such reasonable schedule as may be set by the presiding officer.

### **2. Introduction to Contentions**

In accordance with the Pre-License Application Presiding Officer Board’s June 20, 2008 Memorandum and Order (LBP-08-10), TOP drafted two “single-issue” contentions, one of which raises a single environmental (NEPA) issue and the other which raises a single (miscellaneous) legal issue. Both are supported by a single set of related facts or omissions.

**3. Contentions**

**A. NEPA Contentions**

## **TOP-NEPA-01-FAILURE TO CONSIDER AND ANALYZE CULTURAL, HISTORIC, RELIGIOUS, AND OTHER IMPACTS**

### ***(1) Specific statement of the issue of law or fact to be raised or controverted.***

DOE's 2002 FEIS and 2008 FSEIS fail to evaluate the potential cultural and historic impacts that contamination of springs in Death Valley, California, by effluent from the Yucca Mountain geologic repository could have on the Timbisha. This omission is significant because contamination of the Death Valley springs and other water bodies in Death Valley by effluent from the geologic repository would harm cultural and historic resources of the Timbisha, which would in turn violate the Timbisha's federally-conferred water rights, and, without considering and evaluating those impacts, there is no adequate disclosure of environmental impacts under NEPA. If cultural and historic impacts on the Timbisha from contamination of the Death Valley springs were added, including impacts to the Timbisha's federally-conferred water rights, the disclosure of environmental impacts could be materially different, and thus the NRC may not adopt the FEIS and FSEIS.

### ***(2) Brief explanation of the basis for the contention.***

In the FSEIS, DOE commented that its own groundwater flow model recognizes that effluent from Yucca Mountain could be discharged into the Death Valley springs. (FSEIS, Vol. III at CR 324; *see also* FSEIS §§ 3.1.4.2.1 ("Environmental Setting"), 5.4 ("Postclosure Repository Performance"), Fig. 3.8.) Despite the cultural and historic significance of the Death Valley springs to the Timbisha, and the critical value of the purity of those springs to tribal spiritual beliefs, culture, and heritage, DOE has ignored the impacts that the contamination of the Death Valley springs would have on tribal cultural and historic resources, as well as on water rights conferred to the Timbisha by federal statute.

**(3) *Demonstration that the issue raised in the contention is within the scope of the proceeding.***

This contention raises an issue whether DOE’s license application, including supporting materials, complies with the provisions and policy goals of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.*; NRC regulations implementing NEPA, 10 C.F.R. Part 51; Council on Environmental Quality regulations implementing NEPA, 40 C.F.R. Parts 1500 *et seq.*; NRC regulations at 10 C.F.R. Part 63; as well as case law and agency rules, guidance, and internal policies involving environmental impact statements, which apply to Yucca Mountain. This contention falls squarely within the scope of the hearing as specified in section II, paragraph 1 of the Notice of Hearing.

**(4) *Demonstration that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding.***

Federal regulations implementing NEPA are designed to “insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken” and are intended “to help public officials make decisions that are based on understanding of environmental consequences, and take actions that protect, restore, and enhance the environment.” 40 C.F.R. § 1500.1(b),(c). Generally, the regulations implementing NEPA place several affirmative and mandatory obligations on federal agencies to ensure that they comply with NEPA’s policy, including the obligations to:

- “Interpret and administer the policies, regulations, and public laws of the United States in accordance with policies set forth in the Act and in these regulations.” 40 C.F.R. § 1500.2(a).
- Produce environmental impact statements that “shall be supported by evidence that agencies have made the necessary environmental analyses.” *Id.* § 1500.2(b).
- “Integrate the requirements of NEPA with other planning and environmental review procedures required by law or by agency practice . . . .” *Id.* § 1500.2(c).

- “Encourage and facilitate public involvement in decisions which affect the quality of the human environment.” *Id.* § 1500.2(d).
- “[I]dentify and assess the reasonable alternatives to proposed actions that will avoid or minimize adverse effects of these actions upon the quality of the human environment.” *Id.* § 1500.2(e).
- “Use all practicable means . . . to restore and enhance the quality of the human environment and avoid or minimize any possible adverse effects of their actions upon the quality of the human environment.” *Id.* § 1500.2(f).

Among the NRC regulations governing DOE’s license application in this proceeding are 10 C.F.R. §§ 51.67 and 63.21(a), which require DOE to submit an environmental impact statement (EIS) with its license application. DOE also has an obligation to supplement its EIS to take into account the environmental impacts of any substantial changes in its proposed actions or any significant new circumstances or information relevant to environmental concerns bearing on the proposed action or its impacts. 10 C.F.R. § 63.24(c).

Generally, an EIS must contain a reasonably thorough discussion of the significant probable environmental consequences of the proposed action, which requires a license applicant and the NRC to take a hard look at the potential environmental consequences of its proposed license, as well as the various alternatives. 40 C.F.R. § 1502.14; *see Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9<sup>th</sup> Cir. 1992); *Northwest Ecosystem Alliance v. Rey*, 380 F. Supp. 2d 1175, 1185 (W.D. Wash. 2006); *In The Matter of Dominion Nuclear North Anna, LLC (Early Site Permit for North Anna ESP Site)*, 2007 WL 4129154 at \*6 (N.R.C., 2007) (citing *Robertson v. Methow Valley Cit. Council*, 490 U.S. 332, 333 (1989) (NEPA requires agencies to take a “Hard Look” at the probable environmental consequences of their actions)). Here, that means that DOE’s FEIS and FSEIS must “present environmental impacts” of the various proposals in comparative form to “sharply defin[e] the issues” and to “provid[e] a clear basis for choice among options by the decisionmaker *and the public.*” (Emphasis added.) The

“environmental consequences” to be weighed and compared in the FEIS and FSEIS as dictated by Section 1502.14 are defined in 40 C.F.R. § 1502.16. They include “any adverse environmental effects which cannot be avoided should the proposal be implemented.”

The term “effects,” in turn, is defined by 40 C.F.R. § 1508.8:

Effects and impacts as used in these regulations are synonymous. Effects includes ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, *historic, cultural*, economic, social, or health, *whether direct, indirect, or cumulative*. Effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial.

(Emphasis added.) The inclusion of the absolute mandate that DOE consider and expressly analyze any potential adverse “historic” and “cultural” impacts of the proposed geologic repository on the Timbisha is not incidental or accidental. Indeed, the focus on historic and cultural effects or impacts is specifically repeated in Section 1502.16, which provides that the FEIS and FSEIS “*shall* include discussions of . . . Urban quality, *historic and cultural resources*, and the design of the built environment, including the reuse and conservation potential of various alternatives and mitigation measures.” *Id.* § 1502.16(g) (emphasis added).<sup>14</sup>

The requirement that DOE’s FEIS and FSEIS specifically consider and analyze the proposed geologic repository’s potential historic and cultural effects or impacts on the Timbisha are echoed in the regulations that NRC has promulgated to implement NEPA’s policies. Under those regulations, NRC requires that an EIS include the following:

---

<sup>14</sup> See also U.S. Department of Energy American Indian and Alaska Native Tribal Government Policy, DOE Notice 144.1 (Oct. 20, 2006), at p. 2 (“Cultural resources include, but are not limited to: archeological materials (artifacts) and sites dating to the prehistoric, historic, and ethnohistoric periods that are located on the ground surface or are buried beneath it; natural resources, scared objects, and sacred sites that have importance for American Indian and Alaska Native peoples; resources that American Indian and Alaska Native nations regard as supportive to their cultural and traditional lifeways.”).

Analysis of major points of view. To the extent sufficient information is available, the draft environmental impact statement will include consideration of major points of view concerning the environmental impacts of the proposed action and the alternatives, and ***contain an analysis of significant problems and objections raised*** by other Federal, State, and local agencies, ***by any affected Indian tribes***, and by other interested persons.

10 C.F.R. § 51.71(b) (emphasis added). In sum, there can be no debate that the DOE's FEIS and FSEIS must consider and evaluate the cultural and historic impacts on the Timbisha from repository operations, both during the time of proposed operation and post-closure.

Among the cultural and historic impacts from repository operations would be the impact on the Timbisha's federally-conferred water rights. The reservation for the Timbisha was established by the Timbisha Homeland Act of 2000, Pub. L. 106-423, 114 Stat. 1875 (2000) (codified at 16 U.S.C. § 410aaa) (the "Homeland Act"). The Homeland Act reserves five separate parcels of land in and around Death Valley National Park for the Timbisha. 16 U.S.C. § 410aaa5(b)(1). In addition, the Homeland Act established specific consumptive water rights for the Timbisha at each parcel. *Id.* § 5(b)(2). The Homeland Act also established certain rights for traditional use by the Timbisha of natural resources in Death Valley National Park. *Id.* § 5(d). For example, the Homeland Act provides that "the Secretary [of Interior] shall permit the Tribe's continued use of Park resources for traditional tribal purposes, practices, and activities" and further establishes "special use areas" for the use of the Timbisha for "traditional purposes." *Id.* §§5(d)(2),(4). Thus, the Homeland Act not only has a purpose to establish a reservation of land for the Timbisha with sufficient water supply on the reservation but also has as a purpose the establishment of access rights to areas on and off the reserved land for the purpose of continuing the Timbisha's traditional lifestyle. In this way, the Homeland Act establishes reserved original rights to maintain sufficient flow and quality of water in the springs in the Timbisha's traditional homeland for the purpose of continuing the Timbisha's traditional tribal

purposes, practices and activities. *Winters v. United States*, 207 U.S. 564 (1908); *United States v. Adair*, 723 F.2d 1394, 1410-11 (9<sup>th</sup> Cir. 1983) (referring to the original reserved water rights of American Indians as “aboriginal” rights).

NRC’s own guidance on the review of the adequacy of an EIS and Environmental Report associated with licensing actions state specifically that the report should evaluate impacts to other water users including their water rights. See NUREG–1748, Environmental Review Guidance for Licensing Actions Associated With NMSS Programs, Final Report, NRC (Aug. 2003). Specifically, the EIS should identify consumptive and non-consumptive water uses that could be affected by construction and operation of the project including water rights potentially impacted. The EIS “should identify water uses that provide potential pathways” for radiological effluents including “locations of receptors for non-consumptive uses.” *Id.* at 5-8, 9. To fulfill this requirement, the EIS preparer should fully utilize all available sources of information, including “local water supply companies or agencies, river basin commissions, State agencies (e.g., water resources, fish and wildlife), Federal agencies (e.g., U.S. Army Corps of Engineers and the U.S. Geological Survey) and *American Indian tribal agencies*.” *Id.* at 5-9 (emphasis added). The EIS should compile data “adequate to serve as a basis for assessing the impacts of proposed project construction and operation on consumptive and *non-consumptive water uses*.” *Id.* (emphasis added). In its review of the potential impacts to water users, the NRC should consider “the potential for an incompatibility between water availability as affected by project activities and existing and known future water rights and allocations.” *Id.* pp. 5-15, § 5.4.4.

Moreover, 10 C.F.R. § 63.13(c) provides that a construction authorization will not issue until the NRC weighs the environmental, economic, technical, and other benefits against environmental costs, and considers available alternatives contained in the EIS. The failure to

ensure that NEPA and its various implementing regulations are strictly followed and satisfied is crucial to ensuring that a federal agency has before it the information necessary to understand the full environmental consequences of an action that the agency is being asked to take or approve. For the purposes of this proceeding, that requires the Licensing Board to have before it information sufficient both to understand the environmental consequences of granting the DOE's license application and to act in a way that protects the environment. To satisfy these requirements and to properly implement NEPA procedures and policies, NRC must ensure that it has before it the views of those members of the public that will suffer environmental impacts from DOE's proposed actions and that DOE has included in the environmental impact statements supporting its license application "evidence" that it has "made the necessary environmental analyses." Without the information and analyses of the environmental consequences on Timbisha historic and cultural interests, any decision by the Licensing Board on DOE's license application will violate NEPA because the Licensing Board will have violated NRC's own obligations to comply with NEPA. *See, e.g., Weinberger v. Catholic Action of Hawaii*, 454 U.S. 139, 143 (1981) (observing that NEPA requires "environmental concerns [to] be integrated into the very process of agency decision making"); *see also Massachusetts v. United States*, 522 F.2d 115, 119 (1<sup>st</sup> Cir. 2008) (applying NEPA requirements to NRC).

**(5) Concise statement of the alleged facts or expert opinions supporting TOP's position on the issue and on which TOP intends to rely, and references to the specific sources and documents on which TOP intends to rely to support its position on the issue.**

DOE admits that groundwater and contaminants below Yucca Mountain may migrate to and discharge from springs in Death Valley, contaminating both the springs and the water bodies in Death Valley that derive water from the springs. The FSEIS states that water below Yucca Mountain could contribute to springs in Death Valley. Specifically, in its response to comments on the FSEIS, DOE acknowledges that its own groundwater flow model recognizes that effluent

from Yucca Mountain would migrate toward Death Valley Junction and could be discharged into the Death Valley springs:

The analysis described in the Repository SEIS bounds the impacts that would result if the plume reached Death Valley. The DOE model of groundwater flow estimates ***the plume from Yucca Mountain would move south into Amargosa Desert and on toward Death Valley Junction and the discharge area of Alkali Flat/Franklin Lake Playa.*** The Repository SEIS recognizes in Sections 3.1.4.2.1 and 5.4 that ***groundwater flowing through the Amargosa Desert might contribute to the Death Valley springs to the west and, therefore, those springs could be potential discharge areas for groundwater from beneath Yucca Mountain.***

(FSEIS, Vol. III at CR-324 (emphasis added); *see also* FSEIS §§ 3.1.4.2.1 (“Environmental Setting”), 5.4 (“Postclosure Repository Performance”), Fig. 3.8.)

In its review of the FEIS, the NRC staff indentified that DOE failed “to completely and adequately characterize potential contaminant release to groundwater and from surface discharge and that this failure “renders the EISs inadequate.” (*U.S. Nuclear Regulatory Commission Staff’s Adoption Determination Report For the U.S. Department of Energy’s Environmental Impact Statements For The Proposed Geologic Repository At Yucca Mountain*, pp. 3-8.<sup>15</sup>) However, despite the inadequacy of the groundwater analysis in the FEIS, DOE recognizes that groundwater below Yucca Mountain may contribute to the discharge at springs in Death Valley, irrespective of its flow path or the cumulative impacts. (*Id.*) DOE notes “water from beneath Yucca Mountain could contribute to Death Valley springs whether or not it reaches the carbonate aquifer in the area of Yucca Mountain” and should the upward gradient at Yucca Mountain be eliminated, this would simply result in a different flow path. (FSEIS, Vol. III at CR-324.)

---

<sup>15</sup> LSN #: NRC000029699, U.S. Nuclear Regulatory Commission Staff’s Adoption Determination Report For the U.S. Department of Energy’s Environmental Impact Statements For The Proposed Geologic Repository At Yucca Mountain, Sept. 5, 2008, pp. 3-8.

For nearly a decade, the Timbisha have consistently identified the potential impacts of a Yucca Mountain repository on their cultural interests as one of their primary reasons for opposing the licensing of a high-level waste repository there. In November 1999, the Timbisha stated their opposition, in part, in this way:

The Timbisha Shoshone Tribe opposes the Yucca Mountain Project because it places highly radioactive wastes in Timbisha Shoshone land for thousands and millions of years. . . . The containers will eventually leak *and contaminate the groundwater*, poisoning future generations. *The Timbisha Shoshone people will eventually become effected by the groundwater when it becomes contaminated.* . . . Although the DOE considers it a wasteland, *this desert land is sacred.*

(Comments, Yucca Mountain Project Draft EIS (emphasis added).<sup>16</sup>)

Similarly, in February, 2000, commenting further on the Draft EIS, the Timbisha noted that the Draft EIS concluded that groundwater with varying concentrations of different radionuclides would reach wells in the Amargosa Valley and springs in Death Valley, and that the DEIS acknowledged that Native Americans consider the repository “to be an adverse impact to all elements of the natural and physical environment.” Even more specifically, the Timbisha referred to comments that they and other Native Americans consider the contamination that will result from Yucca Mountain repository operations to be “pollution of . . . holy lands” but that DOE failed to address these clear cultural concerns. (Letter from Pauline Esteves to Wendy Dixon, February 24, 2000.<sup>17</sup>)

In its January 10, 2008 comments submitted to the DOE on the Draft FSEIS, the Timbisha specifically noted that the Timbisha “has particular concerns as to . . . cultural

---

<sup>16</sup> LSN #: DN20022421185, Public Comments Regarding the Draft Environmental Impact Statement by Pauline Esteves, Tribal Chair, Timbisha Shoshone Tribe, Nov. 4, 1999.

<sup>17</sup> LSN #: DEN001388576, Letter to Wendy Dixon from Pauline Esteves re: Draft Environmental Impact Statement, Yucca Mountain Project; and Proposed Rulemaking, Yucca Mountain Site Suitability Guidelines, 10 C.F.R. Parts 960 and 963(c), Feb. 24, 2000.

resources . . . impacts,” and requested that DOE “assess and analyze . . . impacts to cultural resources” of the Timbisha. (Timbisha letter to Jan Summerson and M. Lee Bishop, January 10, 2008.)<sup>18</sup>

Among the concerns that the Timbisha has about impacts from a Yucca Mountain geologic repository are that repository operations will have significant adverse impacts on Timbisha cultural and historic resources. In particular, the Timbisha are concerned about impacts on the purity of springs and other water bodies in Death Valley in the vicinity of which they traditionally have lived for thousands of years, which they hold as sacred and that are required to be kept clean and pure.

The purity of water in springs has cultural religious significance to the Timbisha. (Durham Decl. ¶¶ 4-8; Esteves Decl. ¶¶ 4-9; Fowler Decl. ¶¶ 6-12<sup>19</sup>; *see also* Fowler et al., *Native Americans and Yucca Mountain, A Revised and Updated Summary Report on Research Undertaken Between 1987 and 1991*, Vol. I, pp. 30, 92,<sup>20</sup> Fowler, *Residence without Reservation: Ethnographic Overview and Traditional Land Use Study, Timbisha Shoshone, Death Valley National Park, California* (August 25, 1995)<sup>21</sup>.) For multiple generations the Timbisha have lived in the areas around what is now Death Valley National Park. (Fowler Decl. ¶ 6.) While the Timbisha has gained trust lands in its traditional and original homeland, the area tribal homeland encompasses mountain ranges, valleys, springs over a wider area than their trust

---

<sup>18</sup> LSN #: TBS000000001, The Timbisha Shoshone Tribe’s Comments on Draft Repository Supplemental Environmental Impact Statement and Draft Nevada Rail Corridor/Alignment Environmental Impact Statement, Jan. 10, 2008.

<sup>19</sup> LSN #: TOP000000012.

<sup>20</sup> LSN #: NEV000000308, *Native Americans and Yucca Mountain, A Revised and Updated Summary Report on Research Undertaken Between 1987 and 1991*, Vol. I, Oct. 1, 1991.

<sup>21</sup> LSN #: TOP000000001, *Residence without Reservation: Ethnographic Overview and Traditional Land Use Study, Timbisha Shoshone, Death Valley National Park, California*, August 25, 1995.

lands. The Timbisha's lifestyle and culture is intimately connected to the water resources in the area and, in particular, to the cleanliness and purity of those water resources.

Life in the desert environment is harsh, and the Timbisha developed a deep attachment to the land and its natural resources that is reflected in the Timbisha cultural values and religion. Water, including the springs, are a part of the Timbisha's creation stories. Important to the Timbisha from the perspective of religion is the concept of a power or energy, called "puha," an impersonal force that can potentially reside in any natural or living thing including people, water, and plants. Puha is also reflected in various classes of anthropomorphic spirits. This translates into the Timbisha's cultural and religious view that the Earth is sacred and that the Creator requires the Timbisha to protect the Earth, including water, and maintain its purity. (Durham Decl. ¶ 4, 6; Esteves Decl. ¶¶ 4-8; Fowler Decl. ¶ 6.)

To the Timbisha, water that emanates from springs in their traditional homeland is the lifeblood of the Mother Earth. Springs are locations in their homeland where the people and animals may thrive. This has developed into the Timbisha's cultural and religious view that all tribal members have an obligation to protect the springs and to ensure that the springs continue to flow and remain clean. To maintain the purity and flow of the springs, traditionally, the Timbisha would regularly clean springs to ensure a ready supply of clean water for Tribal members and wildlife. (Durham Decl. ¶¶ 4-6; Esteves Decl. ¶¶ 4-6; *The Timbisha Shoshone Tribal Homeland, A Draft Secretarial Report to Congress to Establish a Permanent Tribal Land Base and Related Cooperative Activities*, p. 5.<sup>22</sup>)

---

<sup>22</sup> LSN #: DN2002427532, *The Timbisha Shoshone Tribal Homeland, A Draft Secretarial Report to Congress to Establish a Permanent Tribal Land Base and Related Cooperative Activities*, June 12, 2000, p. 5.

In Timbisha's cultural and religious view, all springs are interconnected and are linked by a vast underground network. This water network in the earth is the vehicle that allows puha and spirits to travel throughout the tribal homeland. (Esteves Decl. ¶ 5; Fowler Decl. ¶ 8.)

In the Timbisha's cultural and religious view, people who obtained considerable amounts of puha were called "puhaganta," Doctors or shamans. Some Doctors have a special relationship with springs, which are one source of puha. In the past, Doctors were able to travel through the water network from spring to spring. (Esteves Decl. ¶ 7; Fowler Decl. ¶ 9.)

All sources of puha, such as mountains, springs and water courses and living things that possess puha such as animals and people, are to be treated with respect. In recognition of the springs as a source of puha, ordinary members of the Timbisha would make offerings to springs. For example, offerings or specific prayers were made at springs when they were visited, such as at harvest time. Offerings would also make sure that puha did not act in an unfriendly way towards the Timbisha. (Esteves Decl. ¶ 9; Fowler Decl. ¶ 11.)

Purity and cleanliness of springs in their traditional homeland is of great importance to the Timbisha's culture and religion. The Timbisha considers critical the purity of the springs, as it affects living things that may draw puha from the springs and the spirits that may reside at springs. To the Timbisha, even small amounts of contamination would be disrespectful to the springs and to the earth. (Durham Decl. ¶ 7; Esteves Decl. ¶¶ 5, 7, 10; Fowler Decl. ¶ 12.)

**(6) *There is sufficient information to show that there is a genuine dispute with DOE on a material issue of law or fact, with references to the specific portions of the license application that TOP disputes or the information that the application fails to contain and the supporting reasons for TOP's dispute or belief.***

There is a genuine dispute between TOP and DOE regarding the evaluation of the potential impacts that the proposed geologic repository might have on the Timbisha's cultural and historic resources, as well as on their water rights conferred by federal statute. Despite the

Timbisha's express requests that the DOE consider and evaluate the potential harm to the Timbisha's own particular cultural interests, including effects from contamination of the Death Valley springs that DOE's own groundwater flow model shows may occur, the DOE has failed to present any such analysis. The FEIS and FSEIS limit their assessment of impacts on cultural resources solely to the withdrawal land and fail even to mention impacts on Timbisha cultural or historic resources, including water rights, lying in the region outside the withdrawal lands that might be affected by repository operations, including the contamination of the Death Valley springs by contaminated groundwater from Yucca Mountain repository operations. (FEIS, § 3.1.6 pp. 3-77; FSEIS, § 3.1.6, pp. 3-62.) In fact, despite NRC's EIS guidance, the FEIS and FSEIS lack any mention of the consumptive and non-consumptive water use by the Timbisha or the Timbisha's water rights and lacks any analysis of the potential impacts to those uses and water rights by the proposed geologic repository.

Moreover, DOE failed to investigate and understand the Timbisha's particular and unique cultural and historic resources, including water rights, instead simply lumping those interests in with those of all other Native American groups. In considering impacts of construction of the repository, the FEIS, for example, contains a single section titled "A Native American Perspective," which covers a scant three pages. (FEIS, § 4.1.13.4, p. 4-88.) DOE's FSEIS, furthermore, also contains only three pages addressing Native American environmental and cultural concerns. (FSEIS, § 4.1.5, p. 4-40.) That analysis simply lumps together all Native American groups' cultural interests, treating them as a single, indistinct entity:

However, because of the general level of importance that American Indians attribute to these places, which they believe are parts of an equally important integrated cultural landscape, American Indians consider the intrusive nature of the proposed repository to be a significant adverse impact to all elements of the natural and physical environment. Based on Tribal Update

Meetings for members of the Consolidated Group of Tribes and Organizations held since the completion of the FEIS, the American Indian viewpoint is unchanged.

DOE's FEIS and FSEIS further fail to address the various Native American tribes' (including the Timbisha's) particular cultural concerns about potential environmental consequences based on DOE's belief that it would have an "opportunity" to meet with the tribes after the repository is licensed and in operation, and that the availability of such opportunities should "lessen[]" the respective tribes' concerns:

DOE recognizes that it could not undertake disposal of spent nuclear fuel and high-level radioactive waste in a repository at Yucca Mountain without conflict with the viewpoint expressed in the American Indian Writers Subgroup document, but believes that, should the repository be designated, DOE would have the opportunity to engage in regular consultations with representatives of tribes in the region to identify further measures to protect cultural resources, thereby lessening the concern expressed by Native American people.

(FEIS § 4.1.13.4, p. 4-90.)

DOE's environmental justice analysis in the FSEIS also fails to address any specific concern raised by the Timbisha and, again, simply rolls the interests of all Native American groups into one, without any analysis of specific impacts on the Timbisha:

DOE has not identified any subsection of the population, including minority and low-income populations, that would receive disproportionate impacts, and no unique exposure pathways, sensitivities, or cultural practices that would expose minority or low-income populations to disproportionately high and adverse impacts. Accordingly, DOE has concluded that no disproportionately high and adverse impacts would result from the Proposed Action.

(FSEIS § 4.1.13.3, pp. 4-96.)

Thus, despite the Timbisha's repeated efforts to inform the DOE of the adverse impacts on Timbisha cultural interests that they are concerned will result from a repository operated at

Yucca Mountain, including the effects on tribal cultural and historic resources from contaminated groundwater emanating from a Yucca Mountain repository, DOE's environmental impact statements have failed to consider and analyze those concerns. Specifically, neither the FEIS nor the FSEIS even mentions the cultural or historic significance of the purity of the Death Valley springs to the Timbisha or the impacts that contamination will have on the Timbisha's water rights conferred by federal statute. Nor do the FEIS or FSEIS consider and analyze how to mitigate any potential adverse cultural or historic effects on the Death Valley springs caused by groundwater contamination that would emanate from a Yucca Mountain repository.

This contention is not a joint contention.

**B. Miscellaneous Contentions**

## TOP-MISC-01-FAILURE TO SATISFY TRUST OBLIGATIONS

***(1) Specific statement of the issue of law or fact to be raised or controverted.***

DOE failed to consult with the Timbisha regarding the potential cultural and historic impacts that contamination of springs in Death Valley, California, by effluent from the Yucca Mountain geologic repository could have on the Timbisha. This failure is significant because contamination of the Death Valley springs by effluent from the geologic repository would harm cultural and historic resources of the Timbisha, and, by failing to consult with the Timbisha about these potential impacts and how they might be avoided, DOE violated statutory, regulatory, and policy-based consultation requirements. Because of those violations of federal law, the NRC may not grant the license application.

***(2) Brief explanation of the basis for the contention.***

DOE bears a federal trust responsibility to the Timbisha and other Native American tribes impacted by DOE projects. This trust responsibility may manifest itself through a duty to consult with tribes on policies or actions that impact those tribes. The duty to consult is established by the National Historic Preservation Act, Executive Branch orders, and DOE's own internal policies. These promulgations require DOE to make a meaningful consultation with the Timbisha regarding the potential adverse affects that the proposed geologic repository could have on the Timbisha's cultural and historic resources, including the Death Valley springs, and the alternatives and modifications that could avoid, minimize, or mitigate those adverse effects. DOE furthermore has a statutory duty to consult the Timbisha regarding the potential eligibility of the sites where those springs are located for listing on the National Register, which includes conducting a cultural survey. Despite the cultural and historic significance of the Death Valley springs to the Timbisha, DOE has failed to consult with the Timbisha and has not conducted the

required cultural survey or properly evaluated the Death Valley springs sites for inclusion on the National Register.

**(3) *Demonstration that the issue raised in the contention is within the scope of the proceeding.***

This contention raises an issue whether DOE's license application, including supporting materials, complies with the provisions and policy goals of the National Environmental Policy Act, 42 U.S.C. § 4321 *et seq.*; NRC regulations implementing NEPA, 10 C.F.R. Part 51; Council on Environmental Quality regulations implementing NEPA, 40 C.F.R. Part 1500; NRC regulations at 10 C.F.R. Part 63; as well as case law and agency rules, guidance, and internal policies involving environmental impact statements, which apply to Yucca Mountain. This contention falls squarely within the scope of the hearing as specified in section II, paragraph 1 of the Notice of Hearing.

**(4) *Demonstration that the issue raised in the contention is material to the findings the NRC must make to support the action that is involved in the proceeding.***

The trust responsibility of the United States requires the DOE and NRC to observe the most exacting fiduciary standards in considering actions that impact tribal right, land or resources. *Seminole Nation v. United States*, 316 U.S. 286, 297 & 297 n.12 (1942). The trust responsibility applies to all actions of all federal agencies in the Executive Branch impacting Indians. *Nance v. EPA*, 645 F.2d 581, 586 (9<sup>th</sup> Cir. 1990). The federal trust responsibility is a separate legal doctrine that exists independent of and in addition to specific legal obligations imposed by treaties, statutes, regulations and executive orders. *See Pyramid Lake Paiute Tribe v. Morton*, 354 F. Supp. 252, 256 (D.D.C. 1972) (where no specific statute or treaty was violated, Court found that agency officials had violated the trust responsibility). Thus, these obligations function as independent restraints on all federal actions that may affect Indian tribes. *Parravano v. Babbitt*, 70 F.3d 539, 546 (9<sup>th</sup> Cir. 1995) (“[t]his trust responsibility extends not just to the

Interior Department, but attaches to the federal government as a whole”) (citations omitted); *Northwest Sea Farms Inc. v. United States Army Corps of Engineers*, 931 F. Supp. 1515, 1519-20 (W.D. Wash. 1996) (finding that the trust responsibility imposes “a fiduciary responsibility with respect to any ‘federal government action’ which relates to Indian tribes”) (quoting *Nance*, 645 F.2d at 711). The trust responsibility includes the duty to consult with tribes of Indians to ensure their understanding of federal actions that may affect their rights and to ensure federal consideration of their concerns and objections with regard to such actions. As the court explained in *Klamath Tribes v. United States Forest Service*, “[i]n practical terms, a procedural duty has arisen from the trust responsibility such that the federal government must consult with an Indian tribe in the decision-making process to avoid adverse affects on treaty resources.” 1996 WL 924509, No. 96-391-HA, slip op. at 8 (D. Ore. 1996).

The license application submitted by the DOE that is the subject of this proceeding implicates at least three separate sources of a legal duty of DOE to consult with the Timbisha regarding its license application:

#### The National Historic Preservation Act

Properties of traditional religious importance to an Indian tribe are eligible for inclusion on the National Register. 16 U.S.C. § 470a(d)(6)(A). The Advisory Council on Historic Preservation (“ACHP”) regulations require that the DOE evaluate “all identified archaeological and historical sites in the area of potential effect” and determine whether any of the identified sites are eligible for the NRHP. 36 C.F.R. § 800.4(c). The ACHP regulations confer “consulting party” status on tribes in the Section 106 process. *See* 36 C.F.R. § 800.2(c). Under the Section 106 process, once an agency determines that an undertaking exists that has potential to cause effects on historic property, it must determine whether this property is listed on the

National Register or is eligible for listing. 36 C.F.R. § 800.4. Since properties of traditional religious and cultural significance to Indian Tribes are eligible for listing, 16 U.S.C.

§ 470(a)(d)(6)(A), agencies are required to gather information from Indian tribes to help identify historic properties, including those located off Tribal lands, that may have a religious or cultural significance to the Timbisha and are eligible for listing on the National Register. 36 C.F.R.

§ 800.4(a)(4). Tribes must be invited as consulting parties if the “historic properties in the area of potential effect” have “religious and cultural significance.” *See* 36 C.F.R. § 800.3(f)(2). In addition, 36 C.F.R. § 800.6(a) directs the agency official to consult with tribes to develop and evaluate alternative or modifications to the undertaking that could avoid, minimize, or mitigate adverse effects on the historic properties. Among other consultation requirements, 36 C.F.R. § 800.11(c)(2) directs federal agencies to provide the ACHP with the view of the tribes with regard to whether to withhold or release confidential information about the location, character or ownership of a historic property.

DOE has not consulted with the Timbisha regarding the potential impact on properties of traditional religious and cultural significance. (Durham Decl. ¶ 8; Esteves Decl. ¶ 10.) This lack of consultation has resulted in insufficient assessment of the location and character of the historic properties. In a consultation with the Timbisha, the DOE would have developed a record that noted that keepers of the Timbisha’s traditional knowledge identify the Furnace Creek Springs site as being of traditional, historical, and cultural importance. This site might even be eligible for inclusion on the National Register. Additionally, DOE’s lack of consultation under the NHPA is evident from the lack of modifications to the project to minimize or mitigate adverse impacts on the properties of significance to the Timbisha.

Executive Orders and DOE's consultation policies to ensure protection of cultural resources.

DOE also is responsible under Executive Orders and its own consultation policies to ensure the protection of cultural resources. President Clinton promulgated an Executive Order for federal agencies to follow in relation to matters affecting tribes. Exec. Order No. 13175, 65 Fed. Reg. 67,249 (Nov. 6, 2000).<sup>23</sup> President Bush reiterated his support for this policy. Memorandum for Heads of Executive Departments and Agencies: Government-to-Government Relationship with Tribal Governments, 40 Weekly Comp. Pres. Doc. 2016 (Sept. 23, 2004).<sup>24</sup> Executive Order 13175 directs that “Each agency shall have an accountable process to ensure meaningful and timely input by tribal official in the development of regulatory policies that have tribal implications.” Exec. Order No. 13175, § 5(a). It further states that “no agency shall promulgate any regulation that has tribal implications” unless “the agency prior to the formal promulgation of the regulation . . . consulted with tribal officials early in the process . . . .” *Id.* § 5(b)(2)(A). “Tribal official” is defined as the “elected or duly appointed officials of the Indian tribal governments or authorized intertribal organizations.” *Id.* § 1(d).

The DOE consultation process requires the DOE to consult with any American Indian or Alaska Native tribal government with regard to any property to which that tribe attaches religious or cultural importance which might be affected by a DOE action. U.S. Department of Energy American Indian and Alaska Native Tribal Government Policy, DOE Notice 144.1 (Oct. 20, 2006). The Policy is based upon the dynamic relationship between the United States and tribal governments. *Id.* at 1. “The most important doctrine derived from this relationship is

---

<sup>23</sup> Although NRC is not required to consult, it is “encouraged” to do so. Executive Order 13175 (Nov. 6, 2000).

<sup>24</sup> LSN #: TOP000000014, Memorandum for the Heads of Executive Departments and Agencies, Government-to-Government Relationship with Tribal Governments, Sept. 23, 2004.

the trust responsibility of the United States to protect tribal sovereignty and self-determination, tribal lands, assets, resources, and treaty and other federal recognized and reserved rights.” *Id.*

“The DOE recognizes Tribal governments as sovereign entities.” *Id.* at 3. It further supports the principles of self-governance, and highlights its belief that tribal governments are “necessary and appropriate non-Federal parties in the federal decision-making process regarding actions potentially impacting Indian country energy resources, environments and the health and welfare of the citizens of Indian nations.” *Id.*

The DOE consultation policy mandates the “Department will consult with any American Indian . . . tribal government with regard to any property to which that tribe attaches religious or cultural importance which might be affected by a DOE action.”<sup>25</sup> *Id.* at 4. Such consultation by DOE “will include the prompt exchange of information regarding identification, evaluation, and protection of resources.” *Id.* DOE policy requires its employees and agents to speak directly with the impacted tribal nation, in this case the AIT, about its specific cultural issues.

The DOE Policy states that “DOE will be diligent in fulfilling its federal trust obligations” and that it “will pursue actions that uphold treaty and other federally recognized and reserved rights of Indian nations and peoples.” (DOE Notice 144.1 at 2.) This is an affirmative action DOE must take to adhere to its policies. The onus is on DOE, not the tribal government, leadership, or officials.

In sum, the federal trust responsibility, Executive mandates, and DOE’s own policies impose legal obligations on the DOE to consult with Indian tribes on all proposed federal actions

---

<sup>25</sup> For purposes of the DOE Policy, “Consultation includes, but is not limited to: prior to taking any action with potential impact upon American Indian and Alaska Native nations, providing for mutually agreed protocols for timely communication, coordination, cooperation, and collaboration to determine the impact on traditional and cultural lifeways, natural resources, treaty and other federally reserved rights involving appropriate tribal officials and representatives throughout the decision-making process, including final decision-making and action implementation as allowed by law, consistent with a government to government relationship.” *Id.* at 2.

that may affect the tribes' interests in a manner that ensures federal consideration of the tribes' concerns and objections with regard to such actions. This contention alleges non-compliance with the regulatory provisions and case-law requirements cited above, and therefore raises a material issue within the scope of this licensing proceeding.

**(5) Concise statement of the alleged facts or expert opinions supporting TOP's position on the issue and on which TOP intends to rely, and references to the specific sources and documents on which TOP intends to rely to support its position on the issue.**

DOE admits that water and contaminants from the proposed geologic repository could migrate to springs in Death Valley. (*See supra* pp. 24-29; FSEIS, Vol. III at CR-324; *see also* FSEIS §§ 3.1.4.2.1, 5.4, & Fig. 3.8; FEIS Fig. 3-15.) Furnace Creek Springs is one of a number of springs that are located along the northeastern side of Death Valley. Other springs in this area include Texas Spring, Travertine Springs, and Salt Springs. These springs constitute an outfall for groundwater in the Death Valley regional groundwater flow regime. (*See* FEIS, Fig.3-13.<sup>26</sup>) As is discussed in the FEIS and the FSEIS<sup>27</sup> for Yucca Mountain, these springs on the northeast boundary of Death Valley are an outfall for groundwater in the Death Valley regional groundwater flow regime that may be impacted by radionuclides derived from Yucca Mountain. (*See* FEIS, Fig. 3-15.)

According to Timbisha Tribal Elders and historical officers, the Death Valley springs generally, and the Furnace Creek Springs site in particular, are sacred to the Timbisha and are of traditional and cultural importance to the Timbisha. (*See* Esteves Decl. ¶ 10; Durham Decl. ¶¶ 3-6.) These and other Tribal Elders, who regularly practice their religion and traditional culture throughout their original territory, are keepers of the traditional knowledge. (Ian Zabarte,

---

<sup>26</sup> LSN #: DOE2002073507, FEIS.

<sup>27</sup> LSN #: DEN001593669, FSEIS.

*Tribal Concerns About the Yucca Mountain Repository: An Ethnographic Investigation of the Moapa Band of Paiutes and the Las Vegas Paiute Colony* (Oct. 20, 2002).<sup>28</sup> Because these keepers of the traditional knowledge have identified the Furnace Creek Springs site, among others, as being of traditional, historical, and cultural importance to the Timbisha, it is potentially eligible for inclusion on the National Register. The potential contamination of the Death Valley springs generally, and the Furnace Creek Springs site particularly, will have severe impacts to the Timbisha's cultural interests, including disrespecting, insulting, and injuring the Timbisha's ancestors, traditions, spiritual beliefs, religious practices, values, and heritage. (Fowler Decl. ¶ 14.) The contamination of the Death Valley springs would, for example, rob the Mother Earth; render the springs and plants growing around them useless for medicinal purposes; take the medicinal value from the water, and destroy the spiritual significance of the springs and plants and animals that depend on them. (Durham Decl. ¶¶ 4, 6, 7; Esteves Decl. ¶¶ 4-10.)

Despite the sacred and historic nature of the Furnace Creek Springs site and DOE's recognition of the potential contamination of the Death Valley springs by the proposed geologic repository, DOE has not engaged in meaningful consultation with the Tribal Historic Preservation Officer ("THPO") Barbara Durham or Tribal Elders to properly ascertain the impacted cultural or historic resources there. (Durham Decl. ¶ 8; Esteves Decl. ¶ 10.) Nor has DOE conducted a cultural survey with Timbisha tribal leaders and elders or experts who know the Furnace Creek Springs site, or identified or evaluated the Furnace Creek Springs site as a potential historical site for inclusion on the National Register.

---

<sup>28</sup> LSN #: CLK000000033, *Tribal Concerns About the Yucca Mountain Repository: An Ethnographic Investigation of the Moapa Band of Paiutes and the Las Vegas Paiute Colony*, Oct. 20, 2002 (Prepared for the Clark County Department of Comprehensive Planning Nuclear Waste Divisions).

**(6) *There is sufficient information to show that there is a genuine dispute with DOE on a material issue of law or fact, with references to the specific portions of the license application that TOP disputes or the information that the application fails to contain and the supporting reasons for TOP's dispute or belief.***

There is a genuine dispute between TOP and DOE regarding DOE's failure to consult with the Timbisha about the potential impacts that the proposed geologic repository could have on the Timbisha's cultural and historic resources. DOE's own groundwater flow models show that effluent from a Yucca Mountain repository could contaminate Death Valley springs, including Furnace Creek Springs, that are sacred and culturally and historically significant to the Timbisha. The Timbisha have expressed their concerns to the DOE about the potential harm to the Timbisha's cultural and historic resources. Nonetheless, neither the DOE nor NRC has provided separate and meaningful consultations with the Timbisha regarding the potential adverse effects on the Death Valley springs, including Furnace Creek Springs, and the alternatives and modifications that could avoid, minimize, or mitigate adverse effects to the Furnace Springs site. Nor has DOE determined whether the Furnace Springs site is eligible for inclusion on the National Register or conducted a cultural survey of the property.

TOP contends that this failure to consult violates DOE's consultation duty under the National Historic Preservation Act and its trust responsibility to the Timbisha. 42 U.S.C. §§ 4321 to 4370d; *see generally* 40 C.F.R. §§ 1501.6, 1501.7; 16 U.S.C. §§ 470-470w-6; NEPA, Executive Order 13175 (November 6, 2000). In addition, without properly analyzing the Furnace Springs site, including consultation with the Timbisha regarding the cultural importance of the site, the impacts from the Yucca Mountain repository to the site and the alternatives and modifications that could avoid, minimize, or mitigate adverse effects to the Furnace Springs site, DOE cannot insure the professional or scientific integrity of its EIS, in violation of 40 C.F.R. § 1502.24. DOE's failure to satisfy its duty to consult the Timbisha also has placed this

Licensing Board in a situation where it is likely to violate the law as well if it grants the license application. If the Licensing Board relies on DOE's EIS without requiring that the above analysis be conducted, the Licensing Board cannot insure the integrity of DOE's analysis.

This contention is not a joint contention.

Respectfully submitted,

*Signed electronically by Douglas M. Poland*

Arthur J. Harrington  
Douglas M. Poland  
Steven A. Heinzen  
Counsel for the Timbisha Shoshone Yucca  
Mountain Oversight Program Non-Profit  
Corporation

GODFREY & KAHN, S.C.  
One East Main St., Suite 500  
P.O. Box 2719  
Madison, WI 53701-2710  
Telephone: 608-257-3911  
Fax: 608-257-0609

Dated in Madison, WI  
this 5th day of March, 2009.