

**ATTACHMENT 12**

**BEAMAN LETTER**



January 10, 2008

**Joe Kennedy**  
Chairperson

**Ed Hoeman**  
Vice-Chair

**Madeline Esteres**  
Secretary/Treasurer

**Virginia Beck**  
Executive  
Council Member

**Cleveland Casey**  
Executive  
Council Member

Jan Summerson and M. Lee Bishop  
EIS OFFICE, U.S. Department of Energy  
Office of Civilian Radioactive Waste Management  
1551 Hillshire Drive  
Las Vegas, NV 89134

RE: The Timbisha Shoshone Tribe's comments on draft Repository Supplemental Environmental Impact Statement and draft Nevada Rail Corridor/Alignment Environmental Impact Statement

Dear Ms. Summerson and Mr. Bishop:

The Timbisha Shoshone Tribe (the "Tribe") is an affected Indian tribe under the Nuclear Waste Policy Act of 1987, as amended (the "NWP"). The Tribe has prepared and submits the following comments on the draft Repository Supplemental Environmental Impact Statement and draft Nevada Rail Corridor/Alignment Environmental Impact Statement. The Tribe would like the Department of Energy (the "DOE") to acknowledge that an independent detailed analysis by the Tribe of several areas of concern has not taken place as of the submission of these comments. This analysis has not taken place as DOE to date has failed to provide the Tribe with the resources needed for adequate participation in these proceedings. The Tribe as an affected Indian tribe under the NWP has a right to full participation in the oversight of the Yucca Mountain licensing process, which includes commenting on these documents. In order to fully participate the law requires DOE to provide adequate funding to affected Indian tribes in order to secure proper resources for such participation. Other affected units of government have received funding for this process since the late 1980s. The Tribe not only is impacted by the project, but must also review large quantities of material that are critical to its participation in these proceedings. This participation includes the review of the SEIS documents that are the subject of this letter. The Tribe first and foremost requests a 90 day extension of the comment period to allow for a more detailed review and opportunity to provide more detailed and substantive comments. In the event such extension is not granted the Tribe requests that DOE consider the comments set forth below.

The Tribe has particular concerns as to the areas of water resources, cultural resources, air quality, and transportation impacts. The Tribe also concurs with many of the concerns set forth in the comment letter

submitted by Inyo County on December 18, 2007 which are restated below.

**Failure to Define the Affected Environment Correctly - Inadequate analysis in the draft Repository Supplemental Environmental Impact Statement relating to groundwater impacts to the Lower Carbonate Aquifer**

The Tribe shares many of the concerns raised by Inyo County relating to groundwater impacts. A glaring omission in the draft SEIS is that it contains no meaningful assessment of potential impacts to the lower carbonate aquifer (LCA). The draft SEIS makes no predictions, based on water infiltration and waste package corrosion rates, or groundwater migration times, of the severity or timeframe for impacts to the LCA, or its discharge points in the Park. Accordingly, the draft SEIS contain no impact assessment for plant life, wildlife, wildlife habitat or drinking water supplies of the Tribe and in the Park that could potentially be impacted by migrating radionuclides from the repository.

The 2002 Final Environmental Impact Statement for a Geologic Repository at Yucca Mountain, Nevada (2002 FEIS) frequently references ongoing studies relating to groundwater impacts, but the draft SEIS contains little new information on studies conducted by the DOE, the State of Nevada, or Nye and Inyo Counties. Nor does it reference any studies or information conducted by the Tribe as to water quality or quantity that may be impacted by the project. DOE concedes that Death Valley proper is the regional hydrological sink for surface and groundwater, yet the Tribe is not mentioned in terms of groundwater impacts from the repository. The Yucca Mountain regional hydrographic map on page 3-33 (Figure 3.9) in the "Affected Environment" section conveniently omits California in terms of hydrographic areas, even though maps on pages 3-28 (figure 3-7) and 3-30 (Figure 3-8) clearly show Inyo County and Death Valley as part of Death Valley regional groundwater flow system, receiving flow from both the volcanic aquifers and the LCA. The Tribe has lands within these areas and its groundwater supply could be significantly impacted.

**Failure to Define the Affected Environment Correctly - Inadequate analysis in the draft Repository Supplemental Environmental Impact Statement relating to groundwater pumping in the region, its effects on repository compliance and groundwater migration from the repository**

Currently, an upper gradient exists in the LCA, which causes LCA water to move upward in to the volcanic aquifers because of a steep down gradient found in the vicinity of Yucca Mountain. The DOE argues that the upper

gradient will prevent migration of radionuclides from the repository to the LCA. While Inyo's scientific data supports this conclusion, the upper gradient is ephemeral and very fragile. The upper gradient could be degraded by regional groundwater pumping, both from the LCA and volcanic aquifers. The DOE maintains that the future effects of groundwater pumping are highly speculative, and need not be considered in any NEPA analysis. Therefore, there is no analysis from groundwater pumping in the region, and no regulatory measures to maintain the upper gradient. The Tribe strongly disagrees with this assertion. At the very least, DOE should consider present pumping rates and its impact on the upper gradient and radionuclide migration. Any NEPA analysis of repository performance and radionuclide migration that does not take into account the effects of groundwater pumping is incomplete and completely inadequate.

**Clean up or remediation plan for radionuclides surfacing at Alkali Flat/Franklin Lake Playa**

The 2002 FEIS states that water from beneath Yucca Mountain surfaces at Alkali Flat and Franklin Lake Playa, and the 69,000 people could be exposed to contaminated groundwater. It is the DOE's responsibility to implement a mitigation/remediation plan, and an evacuation plan should the repository suffer a catastrophic failure.

**Inadequate analysis relating to socio-economic impacts to the Tribe**

The DOE does not address any potential impacts that the Tribe may suffer as a result of this project. However, the Tribe clearly is located within the "region of influence. The DOE analysis as to the Tribe is incomplete and entirely inadequate because it fails to define the region of influence for the impacts created by the proposed action.

**Inadequate analysis relating to reasonable alternatives to the Caliente Rail Corridor**

The draft Rail EIS states that if the Caliente Rail Corridor is not completed, that the future course is "uncertain" with regards to transportation of nuclear materials to Yucca Mountain. If the Caliente Rail Corridor fails, truck transport will become the preferred method of transportation to the repository. Yet the draft Rail Corridor/Alignment EIS contains no analysis for a mostly truck shipping scenario, which should be considered a reasonable alternative, given the massive uncertainty surrounding the Caliente Rail Corridor. This will be the largest rail construction project in 80 years, and will cost \$2.5-\$3 billion dollars to complete the rail line. The Caliente Rail Corridor also faces several engineering challenges, as the route traverses seven north-south mountain ranges with steep grades,

and numerous areas prone to flash flooding. The Caliente Rail Route will also impact grazing allotments by local ranchers, and require approximately 175 new groundwater wells to be drilled along the route to support construction. Given the uncertainty with cost, engineering challenges, and land-use conflicts, the prospects of the Caliente Rail Corridor being completed is highly questionable. Therefore, the DOE should be required to analyze a "mostly truck" shipping campaign as a reasonable alternative to the Caliente Rail Corridor.

#### **Transportation, Aging, and Disposal Canister**

The Transportation, Aging, and Disposal (TAD) canister is a multi-purpose canister designed to simplify the transport process and reduce exposure to highly radioactive spent fuel rods. The TAD utilizes one packaging system for spent fuel when it leaves the reactor site.

Use of the TAD canister system will significantly increase workers' radiological exposure and the risks associated with handling bare spent fuel assemblies, and loading and welding canisters at reactor sites. There also are uncertainties regarding acceptance of the TAD canisters at the repository and the potential return of rejected TADS to originating sites. The Final SEIS should thoroughly assess the risks and impacts to workers, surrounding communities, the environment, and populations in transit (highways, rail) at reactor sites from using the TAD system. In addition, the Final EIS should analyze how the TAD system will interface with the dry cask storage system at reactor sites as well as analyze its costs and financial arrangements for paying for the TAD system at reactor sites. All four California commercial reactor sites (Diablo Canyon, San Onofre, Rancho Seco, and Humboldt Bay) may have specific problems with the proposed TAD system. All commercial reactors in California are either planning to transfer or have transferred all or a portion of their spent fuel into dry cask storage. Finally, because TADs will be packaged by the individual utilities offsite and then shipped to Yucca Mountain, inspection of the TAD by the DOE before emplacement is critical to the repository's performance.

The Final EIS also should assess how the TAD system would work at decommissioned reactors where the spent fuel handling equipment and facilities have been removed and no longer remain onsite. All of the spent fuel at Rancho Seco, which is in the final stages of decommissioning, has been transferred into dry storage using multi-purpose canisters. The Final SEIS should evaluate how the TAD system would work at decommissioned reactors, where spent fuel handling equipment and facilities have been dismantled and removed from the site. The Final SEIS should identify who is responsible for building facilities to house spent handling operations and how would the costs, liability, and impacts

associated with transferring spent fuel into TADs at reactor sites be handled. About 10% of all spent fuel rods have broken due to gamma ray exposure during fission. These broken rods are not compatible with the TAD. Consequently, the Final EIS should identify and analyze how these broken rods will be shipped to the repository. The Tribe also remains concerned that the TAD will not be certified by the U.S. Nuclear Regulatory Commission before submission of the DOE's License Application. Given the massive uncertainty surrounding the TAD, the Final SEIS must evaluate alternatives if the TAD system does not prove to be suitable, due to its cost and/or risk.

**Potential truck transportation of nuclear materials on California Highways 127 and 178**

The Tribe is very concerned about the potential for nuclear materials to be shipped to Yucca Mountain on California State Highways 127 and/or 178 given the uncertainties surrounding the Caliente Rail Corridor. While these alternative truck routes have not yet been designated, the Draft SEIS estimates that approximately 755 rail casks would be transported through California to the repository (8% of total shipments) and 857 truck casks (32% of total) if the Caliente Rail Corridor is constructed and used. It should be noted that the State of Nevada has estimated a potential for larger numbers of rail cask shipments to Yucca Mountain through California for both the Caliente Rail Corridor (as many as 4,400 casks or 45% of the total shipments). Under the terms of the standard contracts between the DOE and the utilities, 47% of the waste shipments in the first five years of the program will originate at sites without rail access. There will be a huge incentive for DOE to begin its shipping campaign with truck shipments.

Highways 127 and 178 began originally as wagon routes across the desert, and do not take into account the engineering demands that a prolonged truck shipping campaign of nuclear material will place on the roadways. These highways are inadequate for truck shipping campaigns for many reasons:

1. Two-lane highway from San Bernardino County line to Nye County line
2. Limited passing lanes
3. Limited areas of highway shoulder
4. Few turnoffs
5. Flooding from the Amargosa River during spring run off or during other flood events

The first responder to any release of nuclear material in Southeast Inyo County is the Southern Inyo Fire Protection District (SIFPD). The SIFPD

has a volunteer staff of approximately 10, with one full time paid employee who acts as Chief. Response times vary based on the location of an incident. In the past the nearest major hospital facilities are in Las Vegas or Barstow, depending on the site of the incident. It is unclear whether these facilities are properly equipped or trained to handle persons who have been exposed to radioactive materials. Travel times to these facilities range from one and a half to three hours away from potential truck shipping routes in and near the Tribe's lands. Currently, there is no regional communication network that could alert residents and visitors to a radioactive release.

The DOE maintains that these routes are currently not under consideration as truck transport routes. However, due to lingering uncertainties regarding the TAD canister, the Caliente Rail Corridor, and Clark County's steadfast opposition to nuclear shipments through Las Vegas, truck transport appears to be the most probable method of transporting nuclear materials to Yucca Mountain. This belief is further strengthened by the fact that the DOE currently uses State Highway 127 and 178 for low-level waste transport to and from the Nevada Test Site.

The Tribe believes that Section 180 (c) of the Nuclear Waste Policy Act, which provides grants to affected states and tribes for response training, is ineffective both in funding and scope, to adequately train emergency responders to deal with a nuclear release.

#### ***Other Transportation Issues***

The Draft SEIS does not consider "worst-case" accidents in its NEPA analysis because such combinations of factors were considered "not reasonably foreseeable." Yet, the Draft SEIS acknowledges that clean-up costs after a very severe transportation incident involving a repository shipment resulting in the release of radioactive material could range from \$300,000 to \$10 billion. The Final SEIS should evaluate the impacts from a credible worst-case transportation accident or terrorist attack, as well as other accidents scenarios caused by human error.

A National Academy of Sciences (NAS) study recommended that detailed surveys of transportation routes for spent fuel be done to identify potential hazards that could lead to or exacerbate extreme accidents involving very long duration, fully engulfing fires and that steps should be taken to avoid or mitigate such hazards. The Final SEIS should identify the shipping corridors and include route-specific analyses that identify potential hazards along shipment routes. The risk analyses should include the potential consequences of a severe accident or terrorist attack involving extreme, long duration fire conditions that exceed package performance

requirements. The Final SEIS should also consider the impact of human error as well as the potential for unique local conditions to exacerbate the consequences of accidents or terrorist attacks. Certain segments of possible routes in California could provide conditions in which an accident or terrorist attack could exceed the spent fuel packaging performance requirements. Two major highway accidents that occurred this year on California highways (one in the Bay Area and one in Santa Clarita tunnel fire) are being investigated to determine whether these accidents may have resulted in conditions, in particular fire temperatures and fire durations, which approached or exceeded packaging performance requirements. Similarly nearly half of the 16 historical severe accident scenarios that were examined in the NAS 2006 study on spent fuel transport safety occurred in California. The Final SEIS should examine credible accident scenarios that could exceed packaging performance standards.

**No final U.S. Environmental Protection Agency compliance standard**

The final U.S. Environmental Protection Agency (EPA) rule regarding acceptable radiation dose rates at the compliance point, located near Nevada Test Site Gate 5-10, has not yet been finalized. It should be noted that this is the only compliance point for the entire repository. The compliance point also appears to have been selected because it is at the far southern boundary of the Nevada Test Site, rather than for any unique radionuclide detection capabilities. Without any final standard, it is impossible for the Tribe to assess and verify the DOE's claims of compliant repository operations. Therefore, the final Repository EIS should incorporate the EPA's final rule regarding acceptable radiation releases from the repository.

**Specific Impacts to the Timblsha Shoshone Tribe and its resources**

The U.S. Department of the Interior has recognized the Tribe as an "affected Indian tribe" under the Nuclear Waste Policy Act. Neither the draft SEIS nor the draft Rail EIS recognize the proximity of the tribe to the site and the likely impacts that will be felt throughout each phase of the Yucca Mountain Project. The final EIS's should assess and analyze impacts to the Tribe's drinking water supply, impacts from truck transport of nuclear materials through tribal lands, socio-economic impacts, impacts to cultural resources, and environmental justice issues. The DOE also must ensure that the Tribe has adequate resources to fully participate in the oversight process, which includes the ability to meaningfully comment on the SEIS.

**NEPA Procedural Concerns**

The spirit and intent of NEPA is to maximize public input regarding the environmental impacts of actions undertaken by federal agencies. NEPA public meetings allow impacted citizens and other members of the public the opportunity to formally comment on any potential impacts on federal projects. The DOE needs to ensure that NEPA public meetings are held in appropriate places that include all stake holders, and that it specifically consult with the Tribe on the potential environmental impacts of the project.

Thank you for the opportunity to comment on the draft Repository SEIS and the draft Rail EIS. The Tribe again requests that DOE extend the comment period for comments on the SEIS and provide adequate resources to allow for meaningful participation in this process.

Please contact me at (702) 278-3238 if you have any questions concerning these comments.

Sincerely,



Ed Beaman  
Vice-Chairman Timbisha Shoshone Tribe