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MINERAL COUNTY COMMISSIONERS**

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GOVERNING BOARD FOR THE TOWNS OF  
HAWTHORNE, WALKER LAKE, LUNING  
AND MINA  
LIQUOR BOARD AND GAMING BOARD

March 20, 2002

Honorable Spencer Abraham  
U.S. Secretary of Energy  
c/o Under Secretary Robert G. Card  
1000 Independence Ave. SW  
Washington, D.C. 20585

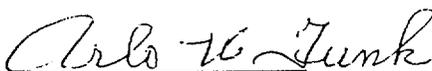
**ATTENTION: Robert A. Paduchik,  
Congressional and Intergovernmental Affairs**

Honorable Mr. Secretary:

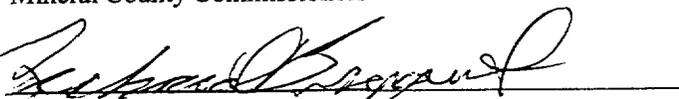
Consistent with requirements of the National Environmental Policy Act (NEPA) and the fiduciary responsibility vested to it through your designation as an "Affected Unit of Government" pursuant to the Nuclear Waste Policy Act (NWPA), the Board of County Commissioners for Mineral County is submitting these comments on the Final Environmental Impact Statement (FEIS) for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada.

As noted in the body of the comments that follow, Mineral County does not believe that the Department of Energy has been responsive to Mineral County's comments on the Draft and Supplement Environmental Impact Statements. As such, it is the position of Mineral County, as an Affected Unit of Local Government, that the FEIS is not legally sufficient to support major federal decisions; neither the repository siting decision nor the transportation mode and routing decision are adequately evaluated in the FEIS.

If you have any questions regarding our comments, please do not hesitate to contact the Mineral County Nuclear Projects Office at (775) 945-2485.

  
ARLO K. FUNK  
Chairman  
Mineral County Commissioners

  
KEVIN WADLOW  
Vice Chairman  
Mineral County Commissioners

  
RICHARD BRYANT  
Member  
Mineral County Commissioners

cc: AULGs  
State of Nevada, NV Agency for Nuclear Projects/NV Legislative Counsel Bureau  
US Nuclear Regulatory Commission  
Nuclear Waste Technical Review Board

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**MINERAL COUNTY'S  
FINAL REVIEW COMMENTS**

**ON**

**The Final Environmental Impact Statement for A Geologic Repository for the  
Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca  
Mountain, Nye County, Nevada (February 2002)**

**DOE NOT RESPONSIVE TO AFFECTED UNIT OF GOVERNMENT  
COMMENTS**

The DOE's summary comments prepared to represent the range of similar comments, fail to adequately capture the essence of the comments provided by Mineral County. There is no indication that DOE adequately understands the concerns of the affected local governments and the nature of impacts that will likely occur as a result of the proposed action. As such, DOE's responses do not address the crux of the concerns presented by Mineral County. Mineral County undertook a detailed review of its specific comments, and the corresponding DOE summary comments and their responses and found that several of Mineral County's comments have been inadvertently omitted from the FEIS, or have been incorrectly assigned to the wrong comment category.

**DOE NOT RESPONSIVE TO NRC'S COMMENTS REGARDING  
TRANSPORTATION**

The NRC, in its comments on the DEIS, suggested that DOE address in detail modes and routes of transportation as a connected action to the repository action in order to adequately assess the full range of impacts, especially with respect to non-radiological impacts, and to identify the potential mitigation measures. Although the DOE has "scaled impacts upward to reflect the relative state by state population growth to 2035," there is no indication that DOE's transportation models for the Nevada analyses have accurately accounted for differences in rights-of-way and easement widths, level of service considerations, and variable speed limits through our communities. Without such detailed analyses, the full range of impacts and the necessary mitigation measures cannot be identified, and any subsequent Record of Decision (ROD) cannot include adequate mitigation.

**FEIS IS NOT ACCOMPANIED BY A COPY OF THE ROD**

DOE's website ([www.ymp.gov](http://www.ymp.gov)) announces that "Secretary of Energy Spencer Abraham recommended to President Bush on February 14, 2002, that the Yucca Mountain site in Nevada be developed as the nation's first long-term geologic repository for high-level radioactive waste, relying on more than 20 years and \$4 billion on scientific study that demonstrates Yucca Mountain is scientifically and technically suitable for development. The following day, President Bush notified Congress that he considers Yucca Mountain

qualified for a construction permit application, taking the next in a series of steps required for approving the site as a nuclear materials repository.”

Yet the Statutory Materials Supporting the Recommendation, including the link and separate page to the FEIS document (<http://www.ymp.gov/new/statutory.htm>) do not include, or list, the Record of Decision (ROD). When the OCRWM office in North Las Vegas (800.225.6972) was called, and a copy of the ROD was requested, the individual answering the phone made reference to DOE’s web site, and when told that the web site did not, in fact, include or even mention a ROD, admitted she didn’t know if the ROD was available.

This is a clear contradiction of 40 CFR 1505.2 which states that ... “At the time of its decision (§1506.10) or, if appropriate, its recommendation to Congress, each agency shall prepare a concise public record of decision. ...”

The omission of a ROD is particularly troublesome since, to have effect, mitigation measures must be included in both the Description of the Proposed Action and Alternatives (DOPAA) and the ROD. Since the numerous and various mitigation measures cited throughout the Environmental Consequences sections to avoid or ameliorate adverse impacts are not, in fact, included in the DOPAA as part of the Proposed Action, the absence of a ROD is especially noteworthy, and clearly is not compliant with 40 CFR 1505.2 (c).

#### **FEIS IS NOT AVAILABLE IN HARDCOPY**

Agency and public access to the FEIS is limited. To date (February 25, 2002), the only means of accessing the FEIS is to download copies of the document and supporting documentation from DOE’s web site ([www.ymp.gov](http://www.ymp.gov)). Given the size of the document, this is a daunting, time-consuming task. To be useful for reviewing by interested parties, the downloaded files would have to be copied to a CD. Not everyone has ready access to: (1) a computer or an internet service provider to visit DOE’s web site; and (2) still fewer individuals have the capability to burn a CD copy. The OCRWM’s Institutional Affairs Office is currently “taking a survey” to see how many individuals want a hardcopy of the FEIS. Written requests must be made to even obtain the “survey questionnaire”. Moreover, at this time, DOE has not made a commitment to distribute hard copies, but is waiting on the “survey” results (McNeal, 2002). This conflicts with 40 CFR 1502.19(c) which requires that the entire EIS shall be furnished to ... “Any person, organization, or agency requesting the entire environmental impact statement.”

Asked whether CD copies of the FEIS and supporting documents were available to the public, the Institutional Affairs Office stated that written requests should be directed to their office. Currently, they anticipated CD copies would be available in 4-6 weeks. In the meantime, hardcopies of the EIS are available in selected public libraries around the country (Claire, 2002).

This very limited availability of the FEIS is in direct conflict with 40 CFR 1502.19 which states that ... “Agencies shall circulate the entire draft and final environmental impact statements except for certain appendices as provided in § 1502.18(d) and unchanged statements as provided in §1503.4(c).”

### **ABSENCE OF ANALYSIS OF AFFECTED COUNTIES**

The introduction to Chapter 3, Affected Environment (p. 3-1, 2nd. Paragraph), states that the “affected units of local government include Nye County ... counties contiguous to Nye County (that is, Clark, Lincoln, White Pine, Eureka, Lander, Churchill, Mineral, and Esmeralda Counties in Nevada and Inyo County in California)”, (emphasis added), yet the FEIS only addresses socioeconomic impacts in Nye, Clark and Lincoln counties.

Once it is explicitly stated, and conceded, that other contiguous counties would be affected, the potential for impacts should be addressed, if not individually, at least collectively, and not lumped into a “balance of Nevada” category. Yet the FEIS does not address impacts to Mineral County or any of the other contiguous counties. This despite the fact that DOE received four separate letters of correspondence from the Board of Mineral County Commissioners, commenting on both the DEIS and the Supplement to the DEIS, and requesting that issues germane to Mineral County be addressed in the FEIS.

In accordance with 40 CFR 1503.4, DOE cannot summarily dismiss these comments, particularly those that specifically refer to impacts that the county’s Board of Commissioners feel would be experienced by Mineral County. Due to the way in which the Comment-Response Volume is organized, it is very difficult to evaluate if, in fact, DOE has complied with the requirements of 40 CFR 1503.4.

### **PREFERRED ALTERNATIVE INSUFFICIENTLY IDENTIFIED**

DOE identified the Proposed Action with the mostly rail transportation as the preferred alternative, but neglected to identify which of the several scenarios, operating modes, options, and sub-alternatives analyzed in the document were also preferred. This is a serious oversight and should be corrected. To delay the decision on the preferred rail corridor and associated intermodal transfer station is unnecessarily segmenting the analysis.

The FEIS should identify which uncanistered versus canistered scenario, which repository operating mode, and which of the five potential rail corridors in Nevada are preferred. If the information provided in the Environmental Consequences chapter is not used to help inform the preferred alternative decision, why is the analysis presented at all? The presentation of the analysis is misleading since it is not used to support any decision.

## **MISLEADING SUMMARY/CONCLUSIONS**

Table 2-7 in the FEIS Summary does not properly characterize the impacts identified in the main body of Chapter 4, Environmental Consequences. For example, the Land Use and Ownership summary statement does not mention the adverse recreational use impacts cited on p. 4-5, nor the seriousness of the Native American view of cultural resource impacts. Given the importance of the FEIS Summary, merely stating that there is an opposing Native American viewpoint, without summarizing their viewpoint, does a disservice to NEPA's goal of a full and fair discussion (40 CFR 1502.1).

The Section 6.3 discussion on Special Status Species (p. 6-81) indicates adverse impacts to numerous unidentified special status species, including the desert tortoise, but Table 2.7 (p. 2-80) fails to mention, or identify, any special status species other than the desert tortoise. The Aesthetics summary in Table 2-7 (p. 2-82) does not mention the aesthetic aggravation to Native Americans identified in Section 4.1.10 (p. 4-71).

40 CFR 1502.12 requires that ... "Each environmental impact statement shall contain a summary which adequately and accurately summarizes the statement. The summary shall stress the major conclusions, areas of controversy (including issues raised by agencies and the public), and the issues to be resolved (including the choice among alternatives)." The FEIS does not satisfy these requirements.

## **UNEQUAL AND INCONSISTENT ANALYSIS ACROSS ALTERNATIVES**

Not only is far less attention given to the No-Action Alternative for all environmental resource areas, which contradicts 40 CFR 1502.14(b), but the region of influence analyzed for public radiation exposures are notably different. For example, Section 7.2.1.7.3 (p. 7-26) limits the radiation exposure analysis to the public to just 3 kilometers, whereas Section 4.1.2.3 (p. 4-14) and Section 4.1.7.3.1 (p. 4-56) use 80 kilometers.

The rationale for limiting the analysis to 3 kilometers in Section 7.2.1.7.3 (p. 7-26) - "... because of the relatively large distance from the storage facilities to the site boundary (typically more than 3 kilometers ...) ... doses to the public were not included" could also have been used for the Proposed Action analysis but was not. The use of different ROI's makes the comparison of impacts between the alternatives impossible.

## **OVER-RELIANCE ON SCIENTIFIC TERMINOLOGY**

Summarily stating that in terms of Occupational and Public Health and Safety the "Public Radiological MEI (probability of an LCF) is  $1.6 \times 10^{-5}$  to  $3.1 \times 10^{-5}$  (See Section 4.1.7.5.3)" in Table 2-7, p. 2-80, is not consistent with 40 CFR 1502.8 which states that "Environmental impact statements shall be written in plain language ... so that decision makers and the public can readily understand them ..." Referring the reader to the much more detailed analysis contained in Section 4.1.7.5.3 dodges the responsibility of forthrightly and simply summarizing the analysis conclusions in simple, plain English.

## **INCOMPLETE AND INSUFFICIENT ANALYSIS**

The FEIS neglects to identify, as required by 40 CFR 1502.16, the following: (1) the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity; (2) any irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented; (3) energy requirements and conservation potential of various alternatives and mitigation measures; (4) natural or depletable resource requirements and conservation potential of various alternatives and mitigation measures; and (5) 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.

The FEIS does not address the impacts of individual facilities associated with the proposed repository, seemingly lumping many of them together under "surface facilities" when, in fact, they can be expected to have different kinds of impacts, and perhaps require different kinds of mitigation measures. For example, there is no separate analysis of the impacts of constructing and operating the 3 megawatt solar power generating facility, the landfill and concrete batch plant, or the facilities for collecting and storing mixed waste for off-site disposal.

Section 3.1.1.2 (p. 3-9) acknowledges that the land in the BLM right-of-way reservation (N-47748) is open to public use, and Chapter 4 admits to impacts to recreational use of these lands when they are withdrawn for the repository, but Chapter 3 provides no information on the nature and intensity of recreational use of these lands, nor any idea of the importance attached to these recreational uses by low-income and minority populations. The impacts to recreational use, and any possible environmental justice impacts are not addressed.

The required upgrades to the Nevada Test Site electrical power distribution system to handle the projected demand for the repository should be identified, and the environmental impacts of implementing the upgrades should have been analyzed in the FEIS. With current capacity of the Canyon Substation at 10 megawatts, and the projected demand at "between 40 and 54 megawatts depending on operating mode" (p. 4-75), upgrades are clearly necessary and the potential for environmental impacts should have been addressed in the FEIS.

The impacts associated with providing alternative water sources, particularly the suggested possibility of a pipeline (p. 2-27), should have been analyzed in the FEIS.

The FEIS largely ignores the potential for traffic and transportation impacts, that is, to levels of service (LOS), and traffic delays, and fuel efficiency. The impacts from 53,000 truck shipments over a 24-year period (2,208 per year, over eight per day during a five-day week, or six per day assuming the repository would receive shipments seven days per week), converging on Nevada's roads will have a noticeable effect. Especially considering the fact that the trucks would be escorted, indeed by armed escorts in metropolitan areas. These issues are not addressed at all.

A footnote in Figure 2-22b (p. 2-43), Transportation Routes analyzed, acknowledges that the routes shown might not be the routes actually used for shipments, admitting that States can designate alternative preferred routes under 40 CFR 397.103. Indeed, shipments from Oregon and northern California are likely to use the I-80 over the Sierra Nevada range, and Hwy. 95 down through Mineral County to the repository, rather than use the much more circuitous routes through either southern California or Utah. Given this reasonably foreseeable outcome, the FEIS must analyze the transportation-related impacts on the population of these additional counties, including Mineral.

The inability to quantify impacts is not an adequate excuse for not identifying likely impacts, and otherwise describing them for decision makers and the public. The assertion that DOE could not quantify potential impacts, and that "further research would be unlikely to make quantification possible" (p. 4-42), is not credible. While quantification may be preferable, there is nothing wrong with sound professional judgment. Quantification and the use of models are no substitute for knowledge. Its noteworthy that in one of the few retrospective studies of the accuracy of predicted impacts in NEPA documents, it was found that a forecast's quantification was not related to predictive accuracy (Calhane, et. al., 1987).

#### **INADEQUATE OR INSUFFICIENT DATA**

Stating that "Legal-weight truck shipments in Nevada would use existing highways and would be a very small fraction of the total traffic ("less than 0.5 percent of commercial vehicle traffic on U.S. Highway 95 in southern Nevada" on p. 6-61) does not provide the necessary information on traffic counts on the affected highway. This statement, moreover, is conclusionary, and should not be part of the affected environment discussion, the proper role of which is to provide the context for understanding potential impacts (40 CFR 1502.15). It is not enough to provide existing levels of service along candidate routes. Actual and projected traffic counts should be provided, along with projected levels of service.

Table 3-54 (p. 3-162), which defines the regions of influence for individual environmental resources for the Heavy-Haul trucking alternatives, states that for Environmental Justice the region of influence is the "Locations of minority, low-income, and Native American populations along the heavy-truck implementing alternatives ..." (emphasis added). Yet, Section 3.2.2.2.10, with the exception of Las Vegas, provides no data at all on the locations of minority, low income, and Native American populations along these routes (let alone projected future populations). Referring the reader to figures that show locations of minority and low-income communities for the whole of Nevada is inappropriate. The spatial resolution of the data provided is inadequate. Moreover, the cited data is for minority and low-income populations. Data for just Native Americans, implied by Table 3-54, is not provided.

## **INAPPROPRIATE REGIONS OF INFLUENCE (ROIs)**

The health and safety impacts from airborne radiological emissions is analyzed for the population within an 80 km (50 mile) radius of the site. This region of influence (ROI) may be appropriate for flat terrain, but is not appropriate for the terrain of southern Nevada. Section 3.1.2.2 demonstrates that airflow is channeled by local topography and the wind rose plots provided in Figure 3-3 (p. 3-16) show a strong north-south flow up and down the valley for winds at a height of 60 meters (200 ft.), and a strong southerly flow for winds at 10 meters (33 ft.). Rather than an 80 km radius region of influence, the analysis should have addressed an elongated or spherical region of influence that more accurately reflects the transport of airborne emissions based on the rose plots.

The affected environment description for the current 72 commercial and five DOE sites would have been more representative and more useful in providing the context for understanding potential impacts, if it had presented a "range of conditions" across all 77 sites, rather than concentrating on just the five DOE sites.

For the analysis of environmental justice impacts, the appropriate ROIs are the areas where impacts are projected, i.e., within the 80 km radius analysis area for airborne radiological emissions, along the transportation corridors, and near the intermodal transfer stations. The environmental justice analysis should then determine whether or not minority and/or low-income populations would be disproportionately impacted. Providing data on minority and low-income populations for the state of Nevada as a whole (Section 3.1.13.1) is not useful.

The ROI for socioeconomic is falsely drawn by including all of Clark and Nye counties in the analysis. Although the REMI general equilibrium regional input-output model utilizes Bureau of Economic Analysis data that is only provided at the county-level, and consequently tends to dictate the spatial resolution of socioeconomic analyses, impacts are likely to be experienced in the communities closest to the proposed repository, i.e., Amargosa Valley, Beatty, Pahrump, and Mercury. Including the entire population of Clark and Nye counties inevitably dilutes any potential impacts. The FEIS should distribute or allocate projected population growth to individual communities, based on local commuting patterns and preferences.

## **INCONSISTENT STATEMENTS**

Section 4.2.1.2.11 (p. 4-115) states that the estimated electrical demand for retrieval would be less than 10 megawatts would be well within the capacity that would be available at the repository (emphasis added), without identifying the future capacity. Chapter 2 identifies, and elsewhere (p. 4-75), the current electric power line has a peak capacity of only 10 megawatts.

## **INCOMPLETE CUMULATIVE IMPACTS ANALYSIS**

The reliance of Section 8.1.2.2 (p. 8-10) on two EISs to identify past, present, and reasonably foreseeable future actions, would seem to be suspect. At a time when range encroachment is becoming a serious constraint to training, research, test, and development activities at most of the nation's DOD ranges, the pressure to use the larger, more remote ranges such as the Nellis Air Force Range is likely to increase substantially in the future. Weapon stand-off distances, range safety zones, etc. are all increasing in size, requiring larger and larger test ranges. The potential for significant cumulative impacts from these "reasonably foreseeable actions" would seem to be important, but are not explicitly addressed.

## **SPURIOUS STATEMENTS**

Section 3.3.2 states that ... "This section describes the affected environment for each region that reflects the average or mean conditions of the sites in the region" (p. 3-190). Clearly there is a difference between the average and mean statistic, but it's unclear which statistic was actually used. Moreover, the use of weighting criteria so that the results of the analysis of human health impacts at the 77 DOE and commercial sites across the country would be representative of the sum of results of each actual site, if they had been analyzed independently (p. CR3-46) unduly biases the analysis results. Use of ranges of conditions would have been more appropriate, rather than averages, means, or weighted data.

Section 4.1.13.1 misconstrues the objective of environmental justice concerns. The focus should be on whether or not projected impacts affect minority or low-income populations disproportionately. The measure here is not when the risk or rate appreciably exceeds the risk to the general population but whether, in a given region of influence where adverse impacts are projected, there are disproportionately more minority or low-income populations affected versus non-minority or non-low-income populations. To follow DOE's interpretation one would have to assume that somehow minority or low-income populations were appreciably more susceptible or vulnerable to radiation exposure than the general population. The environmental justice concern is simply whether or not any adverse impacts fall disproportionately on minority or low-income populations based on where they live - i.e., by virtue of their location, not gene makeup.

## **DIFFICULTY OF TRACKING DOE'S RESPONSES TO COMMENTS**

DOE's approach to responding to agency and public comments makes it very difficult if not impossible, to evaluate if, in fact, DOE had complied with the requirements of 40 CFR 1503.4, particularly those requirements identified in 40 CFR 1503.4(a)(3), (4) and (5). Comments and their responses should be grouped, sorted, arranged, or listed by issue(s), not by Section of the FEIS. In fact, as previously noted, Mineral County undertook a detailed review of the specific comments, and the corresponding summary

comments and their responses, and found that several of Mineral County's comments have been inadvertently omitted from the FEIS.

#### **OTHER COMMENTS**

Much of Yucca Mountain lies outside the R-4808N Restricted Area and that its southern end lies under uncontrolled, Class G, airspace below 14,500 ft., which means that there is no legal way to prevent general aviation pilots from flying over parts of the proposed repository. The FEIS does not identify an airspace proposal to designate either a new restricted area or to add to the existing restricted areas to cover the airspace over the proposed repository.

While the underground repository itself would be immune to aerial attack, the above ground facilities would not be, and with the Yucca Mountain site straddling the existing special use airspace, there is presently no prohibition, or warning, on aeronautical charts for pilots to stay away. If new, or a change to existing, special use airspace is being contemplated, such an effort would require including the FAA as a cooperating agency, and addressing the airspace use impacts.

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#### **REFERENCES**

Culhane, P. J., H. P. Friesema, and J. A. Beecher, 1987, Forecasts and Environmental Decisionmaking: The Content and Predictive Accuracy of Environmental Impact Statements. Boulder, CO: Westview Press, pp. 242-243.

Claire, 2002, Telephone Conversation between Ms. Claire (last name unknown), OCRWM, Institutional Affairs Office, and Quent Gillard, Q Analysis & Research, Inc. regarding the availability of CD copies of the FEIS and supporting documents, and the Record of Decision (ROD). February 25.

McNeal, J., 2002, Telephone Conversation between Ms. Jenny McNeal, OCRWM, Institutional Affairs Office, and Quent Gillard, Q Analysis & Research, Inc. regarding the availability of hardcopies and CD copies of the FEIS and supporting documents. February 25.