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Office of Civilian Radioactive Waste Management
U.S. Department of Energy
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Nye County, Situs Jurisdiction, Comments on the Scope of the Supplement to 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

Dear Ms. Summerson:

Nye County appreciates the opportunity to submit comments on the scope of the Supplement to 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 (SEIS). Nye County supports the successful construction and safe operation of the repository and, as the situs jurisdiction for the Yucca Mountain Project (YMP), Nye County has a tremendous stake in the process for producing the SEIS and the outcome of its analysis, and we will continue to pursue all available opportunities to participate in the SEIS. We anticipate working closely with the Department of Energy (DOE) to ensure that the SEIS incorporates the unique data and analyses developed by the County's oversight program.

In August 2002 and again in July 2004, under Resolutions 2002-22 and 2004-25, respectively, Nye County resolved to actively and constructively engage with the DOE and Congress as the YMP proceeds to final design, licensing, and implementation. These resolutions formally acknowledged the Congressional designation of the Yucca Mountain site, and recognized that implementation of necessary steps to protect the long-term interests of Nye County and its residents required constructive County engagement as well as Congressional and DOE action. In Resolution 2004-25, Nye County further resolved to act to maximize the safety and success of the Yucca Mountain repository and its transportation system.

Although the DOE has continued to develop the repository design and associated plans since publication of the Yucca Mountain Final Environmental Impact Statement (FEIS), Nye County agrees with the DOE, as stated in 71 Federal Register 60490, dated October 13, 2006, that none of the developments to the repository design or operational plans would have a significant impact on the environmental effects considered in the FEIS. Therefore, it is not clear why a Supplement to the FEIS is necessary to assist the Nuclear Regulatory Commission (NRC) in

satisfying its National Environmental Policy Act (NEPA) responsibilities pursuant to the Nuclear Waste Policy Act. As stated in the Federal Register, Background section, DOE “considered the potential environmental impacts of a repository design for surface and subsurface facilities, a range of canister packaging scenarios and repository thermal operating modes, and plans for the construction, operation and monitoring, and eventual closure of the repository. The FEIS also described and evaluated the transportation of spent nuclear fuel and high-level radioactive waste from commercial and DOE sites to the repository by two principal modes – mostly truck and mostly rail. DOE recognized at that time that these repository design concepts and operational plans would continue to develop during the design and engineering process.”

The Background section goes on to cite specific examples regarding DOE activities as currently planned, including: employment of three primary surface operating areas; a higher-thermal operating mode for subsurface loading of commercial spent nuclear fuel (SNF); a primarily canistered approach using transportation, aging, and disposal canisters (TADs) for all activities involving commercial SNF; and transportation of SNF to the repository primarily by rail. These current plans all fall within the previously evaluated range of alternatives considered in the FEIS as anticipated by DOE. Neither the proposed action nor the preferred alternative stated in the FEIS has changed (see pages S-9 and 2-2 of the FEIS). DOE should explain that fact in the SEIS and take care not to limit its ultimate flexibility by describing its proposed action with greater specificity than was done for the FEIS. DOE may now have more detailed preferred alternatives regarding specifics of the proposed action, but the proposed action has not changed. Moreover, DOE’s description of evolving designs and operational scenarios is just as true today as when the FEIS was issued. Therefore, the SEIS should clearly explain the need for the SEIS.

The categorization of the following comments is consistent with the subheadings in the Background section of the Federal Register notice. The categories are Proposed Action, No Action Alternative, and Potential Environmental Issues and Resources to be examined.

Proposed Action

Nye County supports the concept of TADs and the related design evolution associated with them. The specifics outlined in current plans are improvements to the more general concepts previously considered by DOE, and are a reasonable step in the evolution of the repository project. The reduced handling of SNF at the repository resulting from the use of TADs as opposed to that required under the older design concept will increase safety margins for all concerned. The operators of current SNF storage locations at reactors are fully practiced in handling bare SNF. Though slightly increasing the amount of handling at current storage facilities, the TAD system appears to reduce the overall SNF handling requirements. An additional redundant safety barrier in handling SNF both at the repository site and during transportation to the repository is provided by TADs. The rail-only nature of TADs will reduce the total number of shipments to the repository versus mostly-truck transportation alternatives and alleviate traffic issues associated with the merging of national shipments as they arrive in Nevada. Transporting SNF is safe under current federal regulations and the TAD concept will ensure negligible non-safety (e.g., traffic) effects to the public and other uses of both rail and highway transportation routes.

Nye County strongly prefers the mostly-rail transport of waste to the repository, and while TADs will alleviate traffic issues associated with nuclear waste shipments, traffic issues will surely occur because of the shipment of construction materials and personnel transportation to the repository site. Therefore, the Proposed Action should include a phased construction schedule in which DOE constructs the rail line to Yucca Mountain and upgrades roads in the vicinity of Yucca Mountain prior to the beginning of repository construction. Otherwise real direct and indirect impacts in terms of safety, highway congestion, noise, and emissions will accrue to the

residents of Nye County near Yucca Mountain and to the personnel working at Yucca Mountain. DOE should fully consider such impacts and provide appropriate mitigation in the form of early rail construction and highway upgrades (specifically extension of the four lane highway from Mercury to at least Gate 510) prior to the start of repository construction.

While Nye County generally supports DOE's current plans, we offer caution that DOE should not limit its ability to modify its plans in the future by eliminating alternatives or ranges of operations already considered in the FEIS. As DOE has pointed out on numerous occasions, the repository design will continue to evolve as plans get closer to realization. Therefore, flexibility should be maintained in the SEIS to reconsider plans within the limits of the existing environmental analysis without having to reanalyze. For example, the current plans to have capability for receipt and wet handling of existing dual-purpose canisters containing commercial SNF should be retained. In addition, DOE should maintain flexibility in its assumption that 90 percent of commercial SNF will be received in TADs, by retaining the existing analysis ranging from mostly-uncannistered to mostly-cannistered SNF.

The SEIS need not reconsider thermal operating modes to the exclusion of the range already considered in the FEIS. All that is necessary is to show that the current planned higher-thermal operating mode is within the range already considered. No limits, either real or implied, on future reconsideration of thermal operating mode should be included in the SEIS. It is also important that DOE not limit the waste-retrievability period to 100 years. The FEIS covered a range of up to 300 years after final emplacement of waste and the SEIS should not limit DOE's flexibility in choosing how long to maintain the ability to retrieve SNF. Other areas that need no reconsideration include the FEIS analysis of sabotage. The analysis in the FEIS bounds, and probably overstates, the risks associated with sabotage of SNF shipments and repository operations.

DOE's scoping request describes a few minor changes (mostly in the form of added specifics versus the ranges analyzed in the FEIS) to the preferred options described in the FEIS. Specific comments regarding the Proposed Action described in the Notice of Intent are presented in the following paragraphs.

The SEIS should clearly explain the details of the revised Proposed Action, including the need for the changes, the benefit of implementing these changes, and the implications these changes have on the program schedule. The details should include descriptions of how the changes will affect capacity and capacity limitations.

The Notice stated, "The primary surface waste handling facilities include a wet handling facility, a receipt facility, and three separate canister receipt and closure facilities. DOE also is considering an initial handling facility." Environmental impacts from repository surface facility construction and operations are not sensitive to the number and type of buildings DOE includes unless there's a significant difference in the amount of land disturbed or a difference in facility safety. Since DOE is not proposing significant differences in the size of the preclosure operations area and all safety requirements will be met if a repository is to be licensed, no significant differences in environmental impacts from the FEIS analysis would be anticipated based on DOE's current plans. DOE should not limit its ability to continue the evolution of repository operations and design based on current plans.

The Notice stated, ". . . as much as 90 percent of the commercial spent nuclear fuel would be placed in TADs at the commercial sites prior to shipment." "The remaining nuclear fuel (about 10 percent) would be . . ." DOE should not limit the use or non-use of TADs to a specific percentage. The existing FEIS analysis covers a range of mostly canistered to mostly uncannistered SNF. DOE's analysis should accommodate possible changes to the planned percentages since important factors about the use of TADs are not yet known, including

specifics on which utilities can and will load TADs, and the cost implications of TADs. As DOE knows, current plans can change. DOE's analysis should accommodate reasonable ranges for such change.

The Notice stated, "In this higher-thermal mode, the repository emplacement drifts would remain open and ventilated for a nominal period of 50 years after emplacement of the spent nuclear fuel and high-level radioactive waste; ventilation would remove much of the heat and humidity from the emplacement drifts during this period." "Emplacement (disposal) operations, which would last up to 50 years, would be followed by a preclosure monitoring period of 50 years." "Under the Proposed Action, emplaced waste packages could be retrieved at any time prior to 100 years after the start of emplacement."

There is no reason to limit the proposed action by imposition of a particular thermal mode. The current preference of a higher-thermal mode should be recognized as just that, a current preference. The option to change preferences to a lower-thermal mode should not be precluded by the SEIS. The original FEIS covers the potential environmental impacts from a wide range of thermal modes and preclosure operating periods from 50 to 300 years after the last waste emplacement. DOE should only commit to the regulatory requirement of at least 50 years of preclosure monitoring following the start of waste emplacement. In general, for instances when DOE has conducted an adequate bounding analysis, it should continue to maintain the flexibility to modify its preferences without redoing the environmental impact analysis

No Action Alternative

The Federal Register notice stated, "Since completion of the Yucca Mountain Final EIS, DOE has not identified any relevant changes in circumstances or information bearing on environmental concerns regarding the No Action Alternative."

Nye County agrees with DOE that there is no need to reanalyze the No Action Alternative. Nye County also believes that DOE should use this same concept of no ". . . relevant changes in circumstances or information . . ." to avoid to the fullest extent possible other unnecessary reanalysis in the SEIS.

Potential Environmental Issues and Resources to be Examined

The SEIS should consider all impacts of the Proposed Action and alternatives, including direct and indirect impacts. As stated in 40 CFR 1502.16, the Environmental Consequences section of an EIS "shall include discussions of: (a) Direct effects and their significance (§ 1508.8). (b) Indirect effects and their significance (§ 1508.8). (c) Possible conflicts between the proposed action and the objectives of federal, regional, state, and local (and in the case of a reservation, Indian tribe) land use plans, policies and controls for the area concerned." As defined in 40 CFR 1508.8, "Effects include: (a) Direct effects, which are caused by the action and occur at the same time and place. (b) Indirect effects, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems." "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" (40 CFR 1508.8).

Socioeconomics

The assumptions used in the socioeconomic analyses for the SEIS should include realistic estimates of increased workforce, industry, and business that would result from the construction and operation of the repository. It should be assumed that the majority of YMP personnel and related industry/business personnel would reside in Nye County. DOE should systematically integrate its workers' place of residence with place of work, program management and administration with program operations and trades, ongoing scientific inquiry with science applications, and ongoing training and learning with practice. The geographic locus of this integration should be the YMP Site County, in particular, the Amargosa Valley area adjacent to Yucca Mountain.

The potential direct and indirect socioeconomic impacts to the local communities in the vicinity of the YMP site should be analyzed using current and projected population data and input from the local communities. Mitigation measures should be presented for both adverse and beneficial impacts recognizing that impacts that may be considered beneficial, such as economic development in local communities, may require actions to minimize the effect that rapid growth may have on those communities.

Specifically, Nye county asks that DOE identify the personnel requirements for the construction and operation of the repository and the rail line, and its assumptions regarding their places of residence and the times and means of their transportation to and from their employment. The DOE should quantify assumptions regarding the needs of the repository workforce for housing, infrastructure, utilities, goods, and services in the communities that will be affected. Also, DOE should quantify assumptions regarding personal incomes of the repository workforce and the benefits of that income to local and state economies.

The DOE should identify the commercial activities that will be necessary to serve the repository, whether "inside the gate" as contractors and consultants, or "outside the gate" as supporting businesses, industries, and services. The DOE should estimate the levels of employment, footprints, and economic activities of each, and their ideal proximity to the repository. The DOE should quantify assumptions regarding the needs of the supporting industry workforce for housing, infrastructure, utilities, goods, and services in the communities that will be affected. In addition, DOE should quantify assumptions regarding personal incomes of the supporting industry workforce and the benefits of that income to local and state economies.

Nye County will be happy to work with DOE to coordinate information related to assumptions about residential and commercial development impacts on county and local plans.

Having made the commitment to provide rail access for shipment to Yucca Mountain, the federal government should consider the application of its rail investment as a component of an integrated strategy for coordinated community development in central Nevada. Over recent decades, Nevada's two widely separated metropolitan areas (Las Vegas and Reno) have grown dramatically, increasingly dominating the State economically and politically. Meanwhile, the State's historically important mining and ranching economies have dwindled, stranding the expanse of central Nevada whose communities often compete for limited economic opportunity. By offering its rail investment as a component of an integrated strategy for economic development in central Nevada, the federal government could signal an interest beyond merely transporting highly radioactive wastes. In the process, it could free the DOE to make decisions regarding the location of key YMP support facilities on best business practice principles.

The addition of rail spurs to industrial and business support areas in rural communities and near the YMP site should be analyzed in the SEIS. Although these spurs may not be considered part of the proposed action or alternatives, other entities would likely construct the rail spurs.

Therefore, the potential impacts of the spurs to natural and socioeconomic resources should, at a minimum, be analyzed in the Cumulative Impacts section of the SEIS.

Traffic and Transportation

As stated previously, Nye County strongly prefers the mostly-rail transport of waste to the repository, and requests that the Proposed Action include a phased construction schedule in which DOE constructs the rail line to Yucca Mountain and upgrades roads in the vicinity of Yucca Mountain prior to the beginning of repository construction. The impacts of a phased construction schedule should be analyzed in the SEIS. Should DOE decide to omit the phased rail construction from the Proposed Action, the traffic impacts to Nye County communities and residents associated with shipments of nuclear waste and construction materials as well as personnel transportation to the repository site should be analyzed. Appropriate mitigation in the form of early rail construction and highway upgrades should be presented in the SEIS.

Radiological Releases

Nye County agrees with DOE that there have been no significant changes in operations that would indicate a higher level of radiological releases. Even if DOE assumes operations are no better than merely meeting regulatory limits, there would be no significant impacts. Since limits have to be met to receive a license and begin operations, further analysis of radiological releases would be a waste of resources. Therefore, DOE should not consider redoing the radiological release analysis that was presented in the FEIS.

Sabotage

Nye County agrees that there is no new information to indicate that reanalysis of sabotage is necessary. Anything but a reference to the FEIS analysis would be a waste of resources and an implied incorrect assertion that something was significantly different.

Cumulative Impacts

A cumulative impact is defined in 40 CFR 1508.7 as, "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions." The cumulative impacts analysis presented in the SEIS should follow the processes recommended in the Council on Environmental Quality's handbook *Considering Cumulative Effects Under the National Environmental Policy Act*.

From Nye County's perspective, some of the most important issues that should be analyzed are the cumulative effects of land withdrawal in the county for restricted access purposes. Nye County has a land area of 11,560,960 acres of which about 93 percent is currently managed by the federal government. Approximately 2,254,000 acres is currently withdrawn for restricted-access DOE/Department of Defense purposes. The restricted access renders these lands unavailable for other types of economic activity and future water resources development. The cumulative impacts of the land withdrawal as well as the construction, operation, and closure of the repository and the related infrastructure and facilities including the rail alignment must be analyzed in the SEIS.

The addition of rail spurs to industrial and business support areas in rural communities and near the YMP site should be analyzed in the SEIS. Although these spurs may not be considered part of the proposed action or alternatives, other entities would likely construct the rail spurs. Therefore, the potential impacts of the spurs to natural and socioeconomic resources should, at a minimum, be analyzed in the Cumulative Impacts section of the SEIS.

Plans, Resolutions, and Supporting Technical References

In a letter dated February 9, 2000 Nye County submitted comments on the Draft Yucca Mountain EIS. The letter included a list of Nye County plans, resolutions, and supporting technical references that should be considered during the preparation of the EIS. That letter and the list of recommended documents provided in the February 2000 comment letter are enclosed with this letter and are hereby incorporated by reference. Since 2000, Nye County has conducted additional studies and monitoring that may provide data that is useful during analyses of YMP impacts. Also, updated data regarding population, growth rates, and economic and demographic conditions within Nye County are available. The Nye County Nuclear Waste Repository Project Office will provide this information under separate cover.

Conclusions

In conclusion, Nye County recognizes the efforts that were made and analyses that were conducted during the preparation of the FEIS and recommends that DOE not limit its ability to modify its plans in the future by eliminating alternatives or ranges of operations that were ~~already considered in the FEIS.~~ The repository design will continue to evolve as plans get closer to realization. Therefore, flexibility should be maintained and recognized in the SEIS.

Furthermore, it is not in the best interest of Nye County or the nation to delay the decision-making process. Nye County recognizes that it is time for the federal government to make a decision and move forward.

As the situs jurisdiction for the Yucca Mountain Project, Nye County expects to be a full participant in the development of the SEIS. In particular, Nye County urges DOE to consider the unique expertise, resources, and data developed by the Nye County Nuclear Waste Repository Project Office.

Please feel free to contact us should you have any questions regarding our comments.

Very Truly yours,
Nye County, Nevada



David Swanson
Interim Director

Enclosure:

Nye County, Situs Jurisdiction, Comments on the Draft Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nevada, February 9, 2000

cc: Board of County Commissioners
Dr. James Marble, Director NRO
Samson Yao, Director, Nye County Public Works
Cheryl Beeman, Interim Director
Ron Williams, Interim County Manager
Rick Marshall, Assistant County Manager
Jan Cameron, Chairman, Amargosa Town Advisory Board