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May 10, 2004

VIA COURIER

Ms. Annette L. Viett-Cook
Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Dear Madam Secretary:

Enclosed for filing with the Nuclear Regulatory Commission is a "Petition by the State of Nevada Under Atomic Energy Act Section 274i and 10 C.F.R. Section 63.63 for Financial Assistance in the Licensing Review of the Yucca Mountain Nuclear Waste Repository."

Please date stamp a copy of this letter and return it to the courier. Thank you.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert R. Loux".

Robert R. Loux
Executive Director

Encl.

NWPA will end, with limited exceptions, only “[a]t the end of the 2-year period beginning on the effective date of any [NRC] license to receive and possess for a repository” in Nevada. This clearly indicates Congress’ intent that Nevada’s health, safety, and environmental review and oversight activities should be funded up to and through the duration of the NRC’s licensing proceeding.

The host State is not an “intervenor” in the Yucca licensing process, allowed in as a party only after satisfying NRC requirements, but is statutorily entitled to “rights of participation and consultation.” 42 U.S.C. § 10121(b). NRC has already provided that “[t]he State may participate in license reviews” for Yucca, and that Nevada will be a party to such reviews. 10 C.F.R. § 63.63(a). The NWPA provides that host States “should be entitled to the broadest possible rights and opportunities to participate in the development of the [repository] facilities.” *Nevada v. Herrington*, 777 F.2d 529 (9th Cir. 1985), quoting S. Rep. No. 282, 97th Cong., 1st Sess. 28 (1981) (final conference committee). So funding of Nevada is not funding of an “intervenor.”

The Yucca Mountain licensing proceeding is widely anticipated to be the most complex, extensive, and controversial proceeding in NRC’s history. DOE has recently announced that its Yucca Mountain application will be supported by approximately three to four million documents comprising 27.5 to 36.5 million pages. Nevada has not had an opportunity to review over 99 percent of those documents, including the key performance models developed by DOE to support the Yucca Mountain application and the safety of the repository.

The Yucca hearing will last between three to four years, which will likely necessitate NRC’s convening multiple Hearing Boards in several locations to hear the various Yucca Mountain-related contentions raised by Nevada and other parties to the proceeding, which are

expected to be numerous. Moreover, because this time period is short by historical licensing standards, NRC is requiring that parties to the proceeding employ unprecedented electronic techniques to manage and make available documents. Indeed, the proceeding will be the first “all-electronic” proceeding to occur in this country.

Under NRC’s Rules of Practice, 10 C.F.R. Part 2, which will be applicable to the Yucca Mountain licensing proceeding, Nevada may participate effectively only by submitting formal and technically competent contentions. Only if these contentions are admitted may Nevada have them considered in the licensing hearing. To be admitted for purposes of the hearing, contentions must be submitted at the outset of the proceeding and must set forth Nevada’s case on each issue with particularity. Contentions must include available and relevant alleged facts, data, analyses, and expert opinion and must indicate all alleged law violations. In accordance with DOE’s putative schedule, Nevada’s health, safety, and environmental contentions must be final in FY2005, and to that end, substantial resources are needed by Nevada now in order to meet its obligations.

II. Authority for Nevada’s Application to NRC for Financial Assistance

The Atomic Energy Act (“AEA”) is made applicable to the Yucca licensing proceeding by virtue of NWPA Sections 114(d) and 121(b). The AEA provides, in Section 274i, broad authority for NRC to enter into assistance agreements with any State impacted by nuclear activities:

The Commission in carrying out its licensing and regulatory responsibilities under this Act [AEA] is authorized to enter into agreements with any State, or group of States, to ... provide training ... and such other assistance ... *as the Commission deems appropriate.*

(emphasis added.) As is noted below, NRC issued a NUREG report in 1979 strongly supporting the notion of assisting host States in repository licensing and has continued to

maintain this expansive view of what is “appropriate” in a repository licensing proceeding since that time. Notably, Commission authority to provide assistance under AEA Section 274i is not limited by any language that can be found in NRC’s Yucca Mountain licensing rule, 10 C.F.R. Part 63, or elsewhere in NRC’s regulations. Likewise, NRC does not cite AEA Section 274i as authority for promulgation of Part 63 in its notice of final rulemaking, so nothing in Part 63 should be construed to limit application by NRC of AEA Section 274i.

Indeed, the Yucca licensing rule, at 10 C.F.R. § 63.63, contains independent provisions entitling Nevada to financial assistance. Subsection (b) provides:

[A] State ... may submit a proposal to the [NRC] Director to facilitate its participation in the review of the license application. The proposal may be submitted at any time and must contain a description and schedule of how the State ... wishes to participate in the review, or what services or activities the State ... wishes the NRC to carry out, and how the services or activities proposed to be carried out by the NRC would contribute to this participation.

Section 63.63(c) commits NRC to meet with the State to discuss any such proposal with a view to "identifying any modifications that may contribute to the effective participation by such state..." Section 63.63(d) then sets out criteria to be used by NRC in evaluating a State’s funding requests. This subsection provides that, "[s]ubject to the availability of funds," NRC *shall* approve an assistance request if:

- (1) The proposed activities are suitable in light of the type and magnitude of impacts that the State ... may bear; and
- (2) The proposed activities—
 - (i) Will enhance communications between NRC and the State ...
 - (ii) Will make a productive and timely contribution to the review; and
 - (iii) Are authorized by law.

Finally, 10 CFR § 63.63 (e) provides that NRC shall advise the State of its response to the State's request, including a statement of reasons for denial of all or any part of the request, and that NRC shall make all proposals and responses available to the public.

From the inception of the nation's repository program and the agency's initial repository licensing regime, NRC has recognized that any viable licensing proceeding will require the well-funded participation by the host State. As early as 1979, in *Means for Improving State Participation in the Siting, Licensing, and Development of Federal Nuclear Waste Facilities*, NRC concluded that "the informed participation of the [host] States is likely to assist the Federal licensing process by providing valuable insights, particularly as to environmental concerns, and by bringing factual and policy issues into sharper focus." NUREG-0539, March 1979, at 20. NRC thus encouraged and approved of federal funding for host States, noting that "Federal grants may be particularly appropriate in view of the uncertainties and technological complexities associated with geologic disposal which may be beyond the existing review capability of most (if not all) States." *Id.* at 21. Given that Yucca Mountain is the nation's first, and perhaps the only, repository ever to seek construction authorization, these considerations appear all the more true today.

III. Why NRC Should Assist Nevada

There are compelling practical and public policy reasons why NRC should provide Nevada with financial assistance for its participation in the Yucca Mountain licensing proceeding. Certainly, Nevada's request satisfies each and every prerequisite for funding set forth in Section 63.63.

DOE has spent hundreds of millions, perhaps billions, of dollars developing its Yucca Mountain license application, which it insists will be submitted to NRC by December 2004. In March 2004, DOE announced it had entered into a contract with Hunton & Williams, a large

Richmond, Virginia law firm, valued at between \$45 to \$63 million just for the *outside* attorneys who will represent DOE before NRC for this proceeding. This extraordinary sum does not include the plethora of technical and scientific experts that DOE is separately funding. Moreover, if NRC Staff recommends approval of the repository for a construction authorization, then NRC Staff, including NRC's Staff attorneys, will likewise be arrayed in favor of the repository. Further bolstering this phalanx of attorneys and experts will likely be the staff, consultants, and attorneys for the Nuclear Energy Institute and the National Association of Regulatory Utility Commissioners, which collectively plan to spend millions of dollars defending DOE's application as putative intervenors in the proceeding.

Against this unprecedented army of federal, state, and industry advocates for the repository, Nevada will be the only party separate from the NRC credibly positioned to advocate against proceeding with the project in the interests of health, safety, and the environment. Though several public interest groups intend to participate, they lack the resources to meaningfully penetrate DOE's technical analyses, its computer models, and its underlying basic scientific research. Indeed, without financial assistance, even Nevada may be unable to do so, and the licensing will have the public perception of a rubber stamp for DOE.

Much of DOE's license application and the work of DOE's experts will be embedded in an exceedingly complex "Total System Performance Assessment" ("TSPA") of the repository. NRC has developed its own complex model ("TPA") simply to assess the viability and accuracy of DOE's model. Accordingly, to participate meaningfully, Nevada has engaged 25 outside experts and several outside nuclear regulatory attorneys to dissect DOE's and NRC's repository performance models and to evaluate the underlying scientific, technical, and legal foundations and inputs used to construct and implement the models. Nevada's goal, and its obligation under both its State Constitution and the NWPA, is to thoroughly and independently

evaluate the work of DOE and NRC Staff, so as to make a vital contribution to the proceeding and support a credible health, safety, and environmental baseline for the project. Nevada's participation will ensure public confidence in the proceeding and will all but guarantee that important technical and scientific questions about and controversies concerning the adequacy of the repository do not go unanswered before the Commission on what is likely the nation's most environmentally significant project ever.

A list of Nevada's world-class experts is attached (Attachment No. 1), together with a list of the attorneys assisting Nevada (Attachment No. 2). Nevada needs and expects to retain several additional experts and attorneys for the Yucca proceeding in the months ahead.

Without financial assistance for Nevada, the Yucca Mountain licensing proceeding will be seriously compromised by Nevada's inability to participate meaningfully and by the lopsided nature of the parties and their respective resources.

IV. Nevada's Lawsuit Over Funding by DOE, and Reimbursement of NRC Funds

DOE has recently refused to fund Nevada's participation out of the Congressionally created Nuclear Waste Fund, though it is required to do so by law. Indeed, DOE appears to have adopted a litigation strategy of attempting to starve Nevada of critical resources so as to reduce the State's opportunity for substantive study and review of DOE's work. DOE has thus opportunistically taken the position that it may not fund Nevada over and above the specific Congressionally appropriated amount for this or any future fiscal year, though it currently funds its own lawyers (\$12 million for the last 9 months of this calendar year) with funds from the general Congressional appropriation for Yucca Mountain, and though DOE's own Office of General Counsel and Chief Financial Officer have formally determined that Nevada's grants from the Nuclear Waste Fund cannot be limited by a specifically appropriated grant.

Accordingly, Nevada filed suit March 17, 2004 against DOE in the Court of Appeals for the D.C. Circuit, Case No. 04-1082, a copy of which is attached (Attachment No. 3). Because time is of the essence in funding Nevada's activities, Nevada also filed a motion to expedite consideration of its petition, a copy of which is also attached (Attachment No. 4).

In view of DOE's stonewalling, Nevada has elected to file this petition for financial assistance to NRC pursuant to Atomic Energy Act Section 274i and Section 63.63 of NRC's rules. Nevada does not seek duplicative funding, however. Rather, Nevada seeks NRC funds for those activities outlined below, all expenditures of which would be subject to NRC audit, and it commits to *reimburse* NRC with DOE funds in the event DOE is ordered by the Court of Appeals to fund Nevada's activities over and above the itemized appropriation for this and future fiscal years.

V. Description of How Nevada Wishes to Participate in the Review (63.63(b))

A. Document Storage and Retrieval System ("DSRS")/Licensing Support Network ("LSN")

In order to participate competently in the licensing proceeding, Nevada will be required to have ready access to literally millions of documents, including documents to be relied upon by DOE, NRC, Nevada itself, and every other party and intervenor to the proceeding. NRC regulations at 10 C.F.R. Part 2, Subpart J, provide for the use of an electronic information management system, the "Licensing Support Network," in the licensing proceeding. The LSN required by Subpart J has the following functions:

1. To provide full-text search and retrieval access to the relevant documents of all parties and potential parties to the HLW repository licensing proceeding beginning in the time period before the DOE license application ("LA") for the repository is submitted;

2. To provide for electronic submission of filings by the parties, as well as the orders and decisions of the Atomic Safety and Licensing Board (“ASLB”) panel, during the proceeding; and
3. To provide access to an electronic version of the HLW repository licensing proceeding docket.

NRC has published a lengthy set of LSN “guidelines” covering aspects such as hardware and software configuration, file format, search and retrieval strategies, the handling of various categories of documents from simple to complex to outright “large,” such as the gargantuan LA itself with supporting materials.

DOE alone has reported its intention to include 30 million pages of documents, or more, on its LSN database. The database, its creation, and utilization are all subject to complex and detailed regulations and demand an extremely sophisticated level of computer expertise.

By definition, the documentary material required to be incorporated in the LSN database by each party includes every single page of material upon which that party may wish to rely or which that party may cite in support of its position in the licensing proceeding. At the time of the licensing hearing, Nevada’s documentary support personnel will be required to have the ability of almost instantaneous retrieval of documents from a universe of millions, for immediate use by counsel in hearing at what may be more than one ASLB panel at one time, in two or more different geographic locations. The preparation and loading of Nevada’s LSN database, and subsequent retrieval of documents therefrom (and the ability to do so from all other parties’ LSN databases), will require Nevada to engage additional staff with specialized knowledge spending thousands of hours of time and effort. As a lead-in to its LSN database input, Nevada has established a Document Storage and Retrieval System, which is already accumulating documents which will eventually become part of the LSN database, and in

addition, providing the support necessary for Nevada’s world-class team of experts to accumulate reference materials prerequisite to their work (\$500,000¹).

B. Technical and Scientific Participation:

1. Climatology

Nevada will examine the approach taken by DOE to characterizing the future climate over the Yucca Mountain region over timescales ranging from 100 years to one million years after the present time.

This will include understanding DOE identification and application of:

- palaeoclimate proxies, especially the Devils Hole chronology and Owens Lake ostracode series, both relevant to the Yucca Mountain region;
- Milankovitch cycles and orbital forcing parameters;
- Climate model simulations of past, present and future climates;
- Observational data including the selection of analogue sites; and,
- Expert elicitation techniques.

DOE has commissioned a large body of research into climate change for the Yucca Mountain region. Although only a small proportion of this has been used in Performance Assessments, Nevada needs to identify and understand the full body of research. Methods to be investigated include those used to:

- identify future climate states;
- characterize the climate over the Yucca Mountain region during each climate state;
- generate future climate successions; and

¹ Figures in parenthesis at the end of each area of discussion represent Nevada’s estimate of the amount of assistance needed and requested from NRC for FY2005.

- represent uncertainty.

An exploration will be made of spatial variability in climate over the region of interest, and whether the methods employed by DOE properly characterize this spatial variability.

Nevada's climatology team will focus on the relationship between actual variability and the potential to characterize this using downscaling techniques based on model and observed data (\$400,000).

2. Geology, Volcanism, and Seismicity

Nevada will study issues related to the geology of the Yucca Mountain site, volcanic hazard and consequence, and seismic hazards. Specifically, Nevada will:

- Provide alternative calculations of the probability of volcanic disruption of the Yucca Mountain repository.
- Evaluate the importance of the buried volcanic centers to probability calculations. The recognition of the buried centers changes volcanic recurrence rates and the overall size of the volcanic field. If recurrence rates reach 17-20/million years and the numbers of centers increases to 25-30, the Yucca Mountain area would prove to be one of the largest volcanic fields in the Basin and Range.
- Evaluate alternative petrogenetic models for the evolution of basalt magmas in the Yucca Mountain that consider the deep melting concept and the presence of a mantle melting anomaly. If these models are correct, then a new cycle of volcanic activity is possible in the next 10,000 years.
- Consider the effects on volcanic probability calculations of extending the compliance period to peak dose (200,000 to 1 million years).

- Evaluate the effects of volcanic ash injection into the biosphere, and consider the effects of ash on short term and long term climate, and radioactive ash accumulating in soil and dunes in the vicinity of the repository.
- Evaluate the effects of a dike or eruption occurring near the repository. This near miss scenario includes changes in ground water flow paths, rock alteration and thermal effects related to dike emplacement. Evaluate the mechanics and probability of fault activation (or re-activation) by dike emplacement.
- Evaluate tectonic models for the formation of Crater Flat, Bare Mountain and Yucca Mountain.
- Examine the evidence for Holocene faulting in the Yucca Mountain area.
- Assess seismic hazard studies for Yucca Mountain.
- Examine extremely large motion, low probability seismic events and questions created if the compliance period is extended.
- Examine smaller motion events with magnitudes up to 7 to 7.5 and their effects on repository and surface facilities for post- and pre-closure periods.
- Determine the cumulative effects of intermediate ground motions (\$500,000).

3. Design, Engineering, Pre-closure Performance, and Criticality

The DOE approach to criticality safety assessment will be carefully reviewed in respect to waste storage on site prior to emplacement, the emplacement process, the period after emplacement during which the repository remains open, and the long-term (to approximately 1×10^6 years after present) following closure of the repository. For the long-term, particular attention will be given to the possibility of criticality events within the first 1×10^4 years.

- For the waste storage period and emplacement process, particular consideration will be given to external events, e.g. aircraft impact, seismic shocks and drop accidents, that have the potential to disrupt storage casks/disposal packages, taking into account the potential for introduction of moderator either at the time or subsequently.
- For the period after emplacement when the repository remains open, consideration will be given to external events, e.g. rock fall, and corrosive penetration of the storage containers. Over this period, it is likely that the emphasis will be on the potential for in-container criticality.
- For the period after closure, while external events will continue to be considered, the emphasis will be on corrosive penetration of the canisters, the distribution of water as moderator within and around them, the differential movement and chemical mobilization of neutron poisons and fissile isotopes and the potential for both in-canister and ex-canister criticality events.
- The evaluation will include, but will not be restricted to:
 - The comprehensiveness of the identified classes of criticality events;
 - The techniques used to assess the likelihood or frequency of the various classes of events, including evaluation of fault and event tree approaches, and hydrogeochemical modeling;
 - The techniques used to define geometrical and compositional configurations of interest;
 - The adequacy of the methods used to determine the k_{eff} of those geometrical and compositional configurations;

- The adequacy of the methods used to determine reactivity insertions and the yield of both brief and protracted criticality events.
- Nevada will evaluate the implications of criticality events for system performance, including potential implications for repository operability and completion during the storage, emplacement and operational phases, and implications for radiological impact in the post-closure phase (\$500,000).

4. Evolution of the Engineered System and Perturbed Near Field

Nevada will continue its in-depth evaluation of the engineered barrier system (“EBS”) performance in the subsurface of the proposed repository. It will concentrate on the design of the EBS with respect to the corrosion of its components and the lifetime prediction of its performance within the anticipated in-drift service environments through the regulatory period.

Nevada’s corrosion group will focus upon the assessment of the technical basis for predicting the performance in the near-field, in-drift, and in-package environments. It will be concerned with a wide range of issues dealing with the complexity of the dynamic environment and the associated behavior of the key metallic components within this system. These issues include, but are not limited to, the metallurgy of the manmade components, heat-to-heat effects of the materials, geometry of the EBS materials with respect to corrosion, dust, rock fall, the chemistry of the liquid and vapor phases in the near-field, in-drift, and in-package environments, the transient temperatures in the environment, neomineralization, rock-water interaction, microbiological effects, corrosion, dissolution, and radiolysis.

Among the specific areas of investigation upon which Nevada will focus, relative to the performance of the EBS are:

- vadose zone pore waters: variation by rock type, structural feature and locations;

- microbial metabolic chemical effects on infiltrating and refluxing waters;
- waters of infiltration: composition (including trace elements), amount, flux, and variations with climate regime;
- deposition of evaporation salts in transport pathways;
- seepage waters: composition, amount and evolution on hot metallic surfaces;
- dust: amount, mineralogical composition, size distribution, and variation with time;
- deliquescence: use of binary salt versus ternary and higher component systems;
- relative humidity: variation with time, location, and temperature;
- corrosion of EBS: drip shield, canister (C-22 and stainless), canister supports, track, etc.;
- stability of welds;
- variations caused by non-uniformity of material compositions;
- types of corrosion for C-22 and welds and for Titanium-7 drip shield (stress corrosion cracking, general corrosion, localized corrosion, and microbially induced corrosion);
- evolution of evaporitic water and salts on hot metallic surfaces;
- role of drift wall rock and invert rock in modulating the pH of drift water;
- radiolysis effects: changes to in-drift water chemistry;
- thermal effects;
- composition amounts in evolution of waters entering containers;
- formation and circulation of acidic vapors;
- corrosion of internal components;

- spacers, cladding, and absorbers;
- alteration/dissolution of spent nuclear fuel; and
- issues related to near-field, in-drift, and in-package environments if the regulations were to be extended beyond 10,000 years (\$1,800,000).

5. Hydrology, Hydrogeology, and Hydrochemistry

Nevada will focus on the analysis and modeling of flow processes at Yucca Mountain, specifically net infiltration, unsaturated zone flow and saturated zone flow, together with the use of hydrochemistry in the interpretation of fluxes and travel times.

Net infiltration assessment will include the use of observed and modeled climate data as input to hydrological simulation tools for performance assessment.

Unsaturated zone issues will include flow processes in the natural system, and the effect of the proposed repository on unsaturated flow, including seepage into the drifts, the impacts of heating, and flow paths below the repository to groundwater.

Saturated zone issues will focus on groundwater flow processes and travel times throughout the impacted groundwater system to the biosphere (i.e. not simply the 18km boundary), including potential impacts of volcanic/seismic disturbance.

This team will need to consider effects of climate change, and the representation of uncertainty in the Total System Performance Assessment (“TSPA”) and will undertake close coordination of effort and findings with the Radionuclide Transport from Wastes to Biosphere, since the representation of flow processes is central to transport assessments (\$800,000).

6. Radionuclide Transport from Waste to Biosphere

Nevada’s radionuclide transport group will focus on the key elements for the transport of radionuclides from waste to biosphere, namely:

- The release of the radionuclides from the waste forms.

- The migration of the radionuclides through the engineered system and the disturbed zone around the vaults.
- The migration of radionuclides through the unsaturated zone:
 - Recognizing the close link to and the inputs from the Hydrology team.
- The migration of radionuclides through the saturated zone:
 - Again recognizing the close link to and the inputs from the Hydrology team.
- Retardation processes, such as sorption and diffusion into the rock matrix, and also dispersion processes (including issues such as whether, for example, geochemical information can build confidence in (or undermine) the travel times of the non-sorbed radionuclides, such as ^{99}Tc , and sorbed radionuclides, such as ^{237}Np).

Key questions to be considered include:

- Whether the data adopted by DOE are justified – including sorption data and data on leaching from the waste. There are two separate threads to this question:
 - Whether the data utilized by DOE are relevant and based on defensible experiments.
 - Whether the parameters used in the models are based on suitable data.
- Whether the treatments of uncertainties and variabilities are justified.
- Whether the conceptual models are justified and whether there are viable alternative conceptual models that have not been considered.
- Whether any features, events, or processes have been forgotten or neglected.
- Whether DOE's view of system evolution is justified.

- Whether DOE’s mathematical models can be relied upon with confidence.
- Whether DOE’s numerical models are reasonable representations of the mathematical models.
- Whether DOE has extrapolated anything unreasonably.
- Whether DOE has upscaled anything unreasonably.
- Whether DOE has simplified the models reasonably in the PA.
- Whether DOE’s understanding of radionuclide transport is reasonable and correct.

It is important to an understanding of radionuclide transport to recognize that transport in the saturated zone has been studied widely in a number of contexts, whereas transport in the unsaturated zone is a far less well-understood system, particularly over the length scales relevant to Yucca Mountain (\$500,000).

7. Site Description and Biosphere Modeling

The characteristics of the biosphere to be used in post-closure radiological performance assessments of the proposed radioactive waste repository at Yucca Mountain are strongly constrained by the rules promulgated by the Environmental Protection Agency (“EPA”) and NRC. The main emphasis of the review will be on whether DOE has undertaken a comprehensive and appropriate biosphere assessment within the context of the rules and in the light of international practice in this area. This review will include, but will not be restricted to:

- The comprehensiveness of the underlying FEP (Features, Events and Processes) analysis, including consideration of whether all relevant FEPs have been identified and characterized at a suitable level of detail, whether interactions between FEPs have been analyzed using an appropriately structured methodology, and whether screening of FEPs has been appropriately

undertaken, both in respect of the first 1×10^4 years after repository closure and in the longer term, to the time of peak dose (around 2×10^5 to 1×10^6 years after repository closure);

- The adequacy of the conceptual model of the biosphere adopted by DOE, including consideration of whether all relevant exposure pathways have been included and taking potential environmental change into account;
- The appropriateness of DOE's assumptions concerning human habits and behavior that have been adopted (bearing in mind the constraints imposed by the EPA and NRC rules);
- The adequacy of DOE's implementation of the conceptual model as a mathematical model;
- The adequacy of the database of parameter values used in conjunction with that model, including consideration of the degree to which those data values are founded on comprehensive reviews of the available literature or the deployment of expert judgment;
- Whether there are deficiencies in the approach and data that could have properly been reduced or eliminated by field or experimental studies, if those had been undertaken in a timely manner and in cognizance of the state of the science at the time that those studies would have to have been undertaken; and
- Whether results obtained from the model have been reported in a way that is suitable for use in radiological performance assessments, revealing clearly the issues arising that are relevant to safety (\$400,000).

8. Overall Performance Assessment Issues and TSPA Support

Nevada will undertake the examination of Overall Performance Assessment Issues and TSPA Support, including:

- Review of the overall scope of the post-closure radiological performance assessment submitted by DOE in respect of Yucca Mountain to determine whether there are deficiencies with respect to comprehensiveness and adequacy of argument; and
- Evaluation of whether the post-closure radiological performance assessment submitted by DOE with respect to Yucca Mountain is adequate to underpin the safety case for disposal of spent nuclear fuel and other high level radioactive wastes.

In support of this effort, detailed top-down reviews will be undertaken of the performance assessment documents submitted in support of the LA by DOE. In addition, reviews will be undertaken of responses to those documents and the LA by interested parties, including, but not limited to, the NRC.

In support of these review activities, Nevada will acquire, install, review, modify as appropriate, run and evaluate output from the version of TSPA model used by DOE in support of its LA. This will require familiarization both with the GoldSim simulation package in which the TSPA model is implemented and with the TSPA model itself. In addition, Nevada's TSPA team will acquire, install, review, modify as appropriate, run and evaluate output from the version of the Total-System Performance Assessment ("TPA") model used by the NRC as a support tool in evaluating submissions from DOE.

Nevada will also acquire, install, review, modify as appropriate, run and evaluate output from other overall performance assessment models relevant to Yucca Mountain, e.g. the model

developed by Electric Power Research Institute (“EPRI”), in so far as the use of such models is helpful in evaluating the adequacy of DOE’s LA.

Nevada’s TSPA team will advise its other specialist teams as to how their particular areas of expertise are described in the overall performance assessment and how those areas of expertise are represented in the various overall performance assessment models, with an emphasis on the DOE TSPA model. In modifying the overall performance assessment models and in selecting input data sets for variant calculations, Nevada’s TSPA team will take advice from the various specialist teams with respect to their particular areas of expertise and interfaces between those areas of expertise. It is anticipated that these interface issues will map closely onto the interfaces between modules in the overall performance assessment models.

Nevada’s TSPA team will advise the specialist teams of priority areas for review and modeling as determined by their significance in the overall performance assessment and relevance to the overall safety case for the facility. It will also evaluate whether DOE has performed model abstraction on these process models in such a way that the abstracted models are fit-for-purpose in the context of the overall performance assessment.

Nevada’s TSPA team will keep track of any changes to the EPA and NRC rules relating to Yucca Mountain under review and will advise the specialist teams, legal team and representatives of Nevada of the implications of any such rule changes for performance assessment and the overall safety case.

In all its activities, Nevada’s TSPA team will have due regard to the state of the art in post-closure radiological performance assessment internationally, both with respect to the criteria and standards adopted, and in terms of the methodologies used.

The preparation and evaluation of such a TSPA involves an array of complicated, highly scientific and technical issues, requiring the talents of a body of experts from diverse

disciplines. The TSPA includes over 5,000 parameters, and over 7,000 mathematical models. The TSPA is so complex, and the uncertainties so large, that a full calculation (computer run) must be repeated some 300 times in order for the statistical significance of the results to be evaluated (\$2,000,000).

9. Expert Elicitation

Nearly every aspect of DOE's site characterization and performance assessment for Yucca Mountain involved significant uncertainties. The primary method to evaluate, and perhaps reduce, these uncertainties should be collection of sufficient data and information during site characterization. However, factors apparently made it necessary for DOE to complement and supplement the data obtained during site characterization with the interpretations and subjective judgments of technical experts. Thus, expert judgments, formally and informally elicited, will be used by DOE in its attempted demonstrations of compliance with NRC's geologic disposal regulation.

Since 1990, the Nuclear Waste Technical Review Board ("NWTRB") and the National Academy of Sciences ("NAS") have also addressed DOE's plans to use expert judgment. Both the NWTRB and the NAS, independently, have expressed concerns with these plans and, in particular, with how DOE addresses the potential for "bias" and "conflicts of interest" when conducting expert elicitation.

Expert elicitation is a *formal*, highly structured, and well-documented process whereby expert judgments, usually of multiple experts, are obtained. Formal expert elicitations usually involve *normative experts*, *generalists*, and *subject-matter experts*.

NRC has implemented a Branch Technical Position ("BTP") to: (1) provide general guidelines on those circumstances that may warrant the use of expert elicitation; and (2)

describe acceptable procedures for conducting expert elicitation when it is used to support a demonstration of compliance with NRC's geologic repository disposal regulations.

If conducted optimally, formal elicitation can reveal a wide range of scientific and technical interpretations, thereby exposing the uncertainties in estimates concerning repository siting, design, and performance attributable to limitations in the state of technical knowledge.

Nevada intends to retain an expert on the scientific method and probabilistic/statistical analysis to review each of DOE's expert elicitations to determine whether there is a proper scientific basis for them, whether the NRC process for expert elicitation was appropriately followed, whether there is readily available read data that might have been available to modest additional cost and effort instead of relying on the elicitations, whether judgments in elicitations were appropriately aggregated, whether the elicitations were made on the basis of sufficient and correct foundational data, and whether the elicitations effectively constitute junk science or are reasonable approximations of reality. (\$250,000)

10. Quality Assurance

Quality assurance includes all the planned and systematic actions necessary to provide adequate confidence that the geologic repository will perform safely and satisfactorily in service. This is one of DOE's most important obligations, both in practice and in planning, and is a key facet of its LA, one which Nevada will pay particular attention to evaluating.

First, DOE must establish qualification or requalification of all samples, experiments, tests, analyses, calculations, assumptions, and parameters that were originally acquired, performed, or implemented under circumstances lacking appropriate quality assurance tools, methods, and procedures. As promised by DOE correspondence of December 24, 2002, from Joseph D. Ziegler to Janet R. Schlueter (Chief, NRC's High-Level Waste Branch), "If any of the pre-LA results cannot be determined to be consistent with analyses conducted under full

quality assurance (“QA”) controls for the LA, a revised approach to resolution will be developed for each impacted KTI agreement item.”

Second, DOE must establish its preparedness to fully comply with the requirements of 10 C.F.R. 63 Subpart G as follows:

- DOE must establish and execute a comprehensive quality assurance program.
- DOE is required by Sec. 63.21(c)(20) to include in its Safety Analysis Report a description of the quality assurance program to be applied to all structures, systems, and components important to safety, to design and characterization of barriers important to waste isolation, and to related activities.
- The description must indicate how the applicable quality assurance requirements will be satisfied.
- High-level waste repositories include structures, systems, and components that prevent or mitigate the consequences of postulated event sequences or that are important to waste isolation capabilities that could cause undue risk to the health and safety of the public. The pertinent requirements of this subpart apply to all activities that are important to waste isolation and important to safety functions of those structures, systems, and components. These activities include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, modifying, site characterization, performance confirmation, permanent closure, decontamination, and dismantling of surface facilities.
- DOE’s quality assurance program must be documented by written policies, procedures, or instructions and must be carried out throughout facility life in accordance with those policies, procedures, or instructions.

- DOE must establish measures to assure that applicable regulatory requirements and the design basis, as defined in Sec. 63.2 and as specified in the License Application, for those structures, systems, and components to which this subpart applies, are correctly translated into specifications, drawings, procedures, and instructions. These measures must assure that appropriate quality standards are specified.
- DOE must establish measures to assure that applicable regulatory requirements to assure adequate quality are suitably included or referenced in the documents for procurement of material, equipment, and services.
- Activities affecting quality must be prescribed by documented instructions, procedures, or drawings of a type appropriate to the circumstances and must be accomplished in accordance with these instructions, procedures, or drawings.
- DOE must establish measures to control the issuance of documents, such as instructions, procedures, and drawings, including changes to them that prescribe all activities affecting quality.
- DOE must establish measures to assure that purchased material, equipment, and services conform to the procurement documents.
- Measures must be established for the identification and control of materials, parts, and components.
- DOE must establish measures to assure that special processes, including welding, heat treating, and nondestructive testing, are controlled and accomplished by qualified personnel using qualified procedures.

- DOE must establish and execute a program for inspection of activities affecting quality to verify conformance with the documented instructions, procedures, and drawings.
- DOE must establish a test program to assure that all testing required to demonstrate that structures, systems, and components important to safety will perform satisfactorily in service is identified.
- DOE must establish measures to control the handling, storage, shipping, cleaning and preservation of material and equipment in accordance with work and inspection instructions to prevent damage or deterioration.
- DOE must establish measures to indicate the status of inspections and tests performed on individual items of the high-level waste repository.
- DOE must establish measures to control materials, parts, or components which do not conform to requirements in order to prevent their inadvertent use or installation.
- DOE must establish measures to assure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, defective material and equipment, and non-conformances are promptly identified and corrected.
- DOE must maintain sufficient records to furnish evidence of activities affecting quality.
- DOE must carry out a comprehensive system of planned and periodic audits to verify compliance with all aspects of the quality assurance program and to determine the effectiveness of the program.

- Nevada will assess the capability and adequacy of DOE's planning and implementation, and its documentation, each of these responsibilities. Nevada plans to retain a quality assurance expert to, among other things, conduct a vertical slice review of specific performance modules used by DOE as foundational information for its performance assessment (\$250,000).

11. Aircraft Crash Analyses

Nevada will undertake an assessment of the aircraft hazards associated with the proposed repository facilities, both from the point of view of the probability and the consequences of such hazards. Nevada believes that DOE's analysis of this hazard to date is substantially flawed, with unsupportable assumptions being employed which have the effect (and perhaps the calculated effect) of resulting in a calculation of the probability of this hazard being below the threshold necessary for DOE to assess its consequences.

By way of example only, DOE's flawed analysis assumes that aircraft will be within their designated airspace when an accident sequence initiates: no allowance is made for human error, due to which aircraft may already be well outside its designated airspace when an accident sequence initiates, and indeed, the deviation from a planned route may be the cause of a crash in mountainous terrain. In this regard, Nevada may undertake an analysis of actual civilian and military flight paths compared with planned flight paths, with an emphasis on variations that took the aircraft outside designated airspace.

In another example, the physical area which DOE uses in its calculation for the potential impact area relating to the Yucca Mountain facility was a very small one, addressing the aboveground fuel handling facilities at Yucca. But the NWPA requires DOE to have the ability to retrieve whatever amount of waste has been emplaced, for a long period of time. At a point in time where most of the waste has been emplaced, if it had to be retrieved, there would

be an enormous area on the surface required for storage pads for such retrieved waste. DOE did not even consider this enormous area when assessing the possible damage caused by aircraft crash. The actual area which should have been under consideration, assuming retrievability, would be many multiples of the area considered by DOE.

Yet another example is DOE's assumption that take-offs and landings from a particular busy airport would increase by five percent a year from the current 60,000 to a total of 440,000 per year at a future date. DOE totally failed to consider the concomitant increase in likelihood of collisions and near misses that would result from the air being so filled with aircraft (more than a seven-fold increase in traffic, under DOE's projection).

Nevada observes that once self-targeting ordnance fails to locate its correct target, it has the potential to travel a very considerable distance before impacting. Nevada may accordingly assess the number of air-to-ground ordnance deployed per year and estimate the probability of impact at different distances from the boundaries of the assumed safety footprint. Such ordnance may be designed to penetrate reinforced targets or deep into the ground, and so, the effects of such ordnance impacting on aboveground facilities could be severe.

DOE "screened out" from consideration, in its calculation of frequency, crashes at low altitude and low speed, assuming these would not bring about material damage. This and other assumptions are disputed by Nevada, which believes evidence will support contrary assumptions and will likely discredit DOE's final "frequency" analysis to the point where a "consequence" analysis will be necessary, one which Nevada will likewise undertake. DOE's final calculation resulted in the conclusion that "by a factor of two" the probability of a crash did not reach the threshold requiring consequence analysis. The correction of even one or a few of DOE's multiple, "stacked," insupportable assumptions would be sufficient to result in a "frequency" analysis mandating a concomitant "consequence" analysis.

As in any aircraft crash hazard analysis, one involving a potential repository at Yucca Mountain would involve the accumulation and analysis by engaged experts of an enormous quantity of factual data relating to numbers and types of aircraft flying in the vicinity, potential causes of crashes, calculation of glide paths, speeds at impact, and innumerable other details. This would include hazards associated with small military aircraft, large military aircraft, DOE aircraft, dropped objects (including ordnance), and civilian aircraft. Calculations would have to be made with respect to crash rate, impact area, plane or helicopter crashes, flight frequencies and flight paths from military, DOE, and civilian airports within reach of Yucca, with particular attention to aircraft hazards engendered by the highly mountainous terrain in the area of the proposed Yucca facility. In view of the fact that DOE apparently intends to “screen out” the eventuality of aircraft crashes from its assessment of a potential Yucca Mountain site, it becomes essential for Nevada to undertake a realistic and competent aircraft crash hazard frequency and consequence assessment (\$250,000).

12. Analysis of DOE Final Environmental Impact Statement

Under the NWPA, NRC may adopt DOE’s Yucca Mountain Final Environmental Impact Statement (“FEIS”) “to the extent practicable.” Nevada found numerous foundational and substantive flaws in DOE’s FEIS, released on February 14, 2002. Although Nevada filed a lawsuit challenging these errors under the National Environmental Policy Act and closely related provisions of the NWPA, the Court of Appeals for the D.C. Circuit may decide, based on indications in oral argument at which NRC was present and rendered views, that Nevada’s challenge to the FEIS was mooted by Congressional passage of the joint resolution that approved Yucca Mountain as the proposed repository site. However, the Court seemed to believe, and secured views from the Department of Justice and from NRC agreeing, that Nevada remains free to challenge the substantive defects in the FEIS during NRC licensing

proceedings or upon any final agency action by DOE, such as on a supplement, postdating the joint resolution. Accordingly, Nevada plans to develop numerous contentions based on the FEIS and on DOE's transportation-related supplement and any other supplements. These will include, *inter alia*, contention's on DOE's flawed "no action" alternative; on DOE's refusal to consider the implications of the Resource Conservation and Recovery Act ("RCRA") on repository viability and licensing; on DOE's refusal to consider federal statutory prohibitions in Nevada on a multiple retrievable storage system DOE plans to accompany the repository; on illegal segmentation of the project's transportation component; and on gross failures in project definition. (\$250,000)

13. NEPA and Transportation

Nevada will analyze and present through factual evidence and expert testimony at the licensing proceeding proof that DOE's key transportation decisions are both irrational and insupportable. DOE has failed to plan for the transportation of spent nuclear fuel and high-level radioactive waste to the proposed repository site in a comprehensive and integrative fashion.

- While DOE has indicated its preference for the so-called Caliente Corridor for transportation of waste within Nevada, neither DOE's FEIS nor any other document contains a legally and substantively adequate analysis comparing the various rail spur options and justifying the identification of Caliente as the preferred alternative. DOE made this identification before it had adopted a preferred transportation mode, and before any national rail routing work had been produced.
- DOE ought to have developed a national transportation plan describing a proposed action and alternatives, including a local Nevada state component that

is consistent with the national plan and which would become the basis for a formal NEPA scoping process. DOE should then have prepared a draft EIS assessing the impacts for the national system for the proposed and alternative actions respecting the national system and the Nevada system.

- Nevada will present contrary analysis and conclusions with respect to many aspects of DOE's FEIS as it relates to transportation, its selection of the "mostly rail" mode, and its preference of the Caliente corridor.
- Nevada will address DOE's last-minute legally insupportable effort to change horses in midstream by issuing a "Supplement Analysis" concluding it need not prepare a supplemental FEIS, and yet embracing a mode of transportation (light-truck casks on railroad cars) which was summarily rejected in its FEIS.
- Nevada's transportation team will analyze realistic sabotage/terrorist threats and the risk of criticality during transportation, all of which have been neglected by DOE in its formulation.
- Nevada will address the impact upon transportation planning of Nevada's mountainous terrain, as well as Native American interests, ranching operations (on November 8, 2003, DOE published its strategic plan for transportation, promising "we will conduct a thorough, open and collaborative planning process with interested parties . . ."; to this day, ranchers in the now-designated Caliente corridor have yet to hear so much as a word from DOE), potential severe accidents (the risks of collision and derailment exist at every point within the system, and especially within the rail yards of major cities), terrorism, and sabotage.

Among the transportation planning components which Nevada will evaluate are:

- Selection of transportation routes and modes;
- Emergency response planning and training;
- Safeguards and security;
- Operational practices;
- Communications and information access;
- Waste packaging for transportation; and
- Worker protection, training, training standards, and qualifications (\$600,000).

C. Legal participation

The licensing proceeding which the NWPAA requires DOE to pursue for this first-of-a-kind facility will be intensive and thorough and will involve an enormous number of adversarial contentions, discovery, motion practice, and evidentiary hearings, as well as travel expenses. Nevada must employ counsel with the specialized legal training and experience prerequisite to competently and thoroughly prepare for and conduct Nevada's participation in the licensing proceeding. As recently as March 24, 2004, by way of comparison, DOE awarded a contract to the law firm of Hunton & Williams providing for a budget of over \$12 million for the remainder of 2004 and a total of over \$45 million over a five-year period, with option years bringing the cost of DOE's anticipated legal services to some \$63 million. (This is strictly legal fees and does not include expert witness fees). We understand that NRC is also hiring up to a dozen new attorneys to assist it with the Yucca licensing proceeding. The last three major NRC licensing proceedings, each far smaller than the licensing proceedings for the Yucca Mountain repository, involved many tens of millions of dollars for legal and expert witness fees alone.

Counsel will communicate and coordinate with the Nevada Attorney General and the State's Agency for Nuclear Projects to ensure effective preparation and defense of the License Application.

- Counsel will provide legal advice and services on all aspects of the NRC licensing process including, but not limited to, legal review and analysis of the LA, preparation of motions, defense of motions, preparation of contentions, identification and preparation of fact and expert witnesses, retention of testifying and non-testifying experts, development of evidentiary case, and representation of Nevada at NRC licensing hearings and in appeals therefrom within NRC.
- Counsel will provide legal advice and assistance in the implementation and maintenance of the LSN in accordance with NRC regulations codified at 10 C.F.R. Part 2, Subpart J, and related Guidelines and policy directives of the NRC.
- Counsel will retain subcontractors or consultants, as needed and with Nevada's concurrence, including, but not limited to, experts and local counsel (\$4,750,000, a sum for one year amounting to only 31% of what DOE has budgeted for attorneys during the same period).

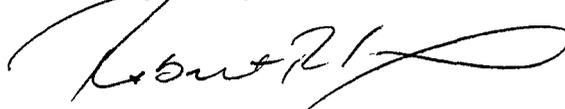
VI. Conclusion, and Request for Expedited Consideration

The level of detail of the foregoing Proposal, while far from comprehensive, is sufficient to illustrate the enormous quantity of work that lies ahead for Nevada in FY2005 in order for it to meaningfully participate in and contribute significant insights to the anticipated Yucca Mountain licensing proceeding. The foregoing Proposal likewise establishes unequivocally that, as the putative host State, the activities proposed by Nevada meet the prerequisites set out in 10 C.F.R. § 63.63(d). That is: (1) they are authorized by law; (2) they

will enhance communications between Nevada and the NRC; (3) they will make a productive and timely contribution to NRC's licensing review; and (4) they are suitable in light of the type and magnitude of impacts that Nevada will bear. Moreover, NRC is authorized by AEA Section 274i to enter into any assistance agreement with a State that it deems appropriate. Accordingly, Nevada respectfully requests that NRC formally consider and grant this proposal.

In view of the accelerated schedule under which DOE is now proceeding with its proposed submission to NRC, and DOE's refusal to fund Nevada beyond any specifically itemized appropriation, Nevada respectfully requests expedited consideration of this proposal.

Respectfully submitted

A handwritten signature in black ink, appearing to read "Robert R. Loux", written in a cursive style.

Robert R. Loux, Executive Director
Nevada Agency for Nuclear Projects

Attachments

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ATTACHMENT 1

NEVADA'S SCIENTIFIC EXPERTS

- ❖ Nevada has engaged a world-class team of eminent scientists to assist the state in its challenge to the Yucca Mountain nuclear waste repository before the U.S. Nuclear Regulatory Commission (“NRC”) in license proceedings. These scientists, working with Nevada’s attorneys, will sponsor expert testimony and assist with the evaluation of testimony by the Department of Energy and NRC Staff.
- ❖ Nevada’s experts cover the entire range of scientific disciplines necessary to demonstrate that the Yucca Mountain repository is unsafe and should not be licensed.
- ❖ Nevada expects to add additional experts in other areas important to the Yucca Mountain licensing proceeding.

CLIMATOLOGY

- **Dr. Johnathan Overpeck** is Director of the Institute for the Study of Planet Earth and Professor of Geosciences at the University of Arizona. He holds a Ph.D. in geosciences from Brown University and has published numerous papers and books on climate change. He is especially experienced in the climatology of the western United States.

HYDROLOGY

- **Linda L. Lehman** is a licensed professional hydrogeologist and President of the Technical & Regulatory Evaluations Group, Inc. She has spent years studying the hydrology of Yucca Mountain, including intensive studies of its saturated zone. She has assisted the U.S. Environmental Protection Agency in the development of compliance criteria for the WIPP nuclear waste repository in New Mexico, and earlier in her career she was a hydrologist for the NRC. As a private consultant, she has been involved in hydrologic studies of the Energy Department’s Hanford nuclear site in Washington, and has provided expert testimony in litigation concerning DOE’s Fernald, Portsmouth, and Rocky Flats sites, uranium mill tailings disposal sites, uranium processing facilities, and various Superfund sites. She has served as an advisor to the National Academy of Science and numerous other governmental bodies on hydrogeologic issues.

- **Dr. Adrian P. Butler** holds a Ph.D. in Groundwater Hydrology from Imperial College in London, where he currently teaches, and is Chairman of the British Hydrological Society (Southern Section). He has published dozens of peer-reviewed papers on the migration of contaminants through subsurface media, and has been involved in radioactive waste disposal studies for the nuclear industry. He is a Fellow of the Royal Meteorological Society.
- **Dr. Howard S. Wheater** is Professor of Hydrology at Imperial College in London, and is a Fellow in the Royal Academy of Engineering and the Institution of Civil Engineers. He has performed hydrologic studies for the U.K.'s high-level nuclear waste repository program, and is past president of the British Hydrological Society. He has also conducted hydrologic studies in Brazil, Spain, Yemen, Japan, China, UAE, and Botswana.

GEOCHEMISTRY

- **Dr. Don L. Shettel** has been studying Yucca Mountain's geochemistry and mineralogy for over a decade. He holds a Ph.D. in Geochemistry and Mineralogy from Penn State, and has been a field geochemist for numerous industrial and governmental clients.
- **Dr. Adrian Bath** is a world-renowned hydro-geochemist who holds a Ph.D. in Isotope Geochemistry from Oxford. He has been a geochemist for the British Geological Survey, and an expert advisor for the International Atomic Energy Agency and for various industry groups. He is currently a lead advisor to the Swedish government on the geochemistry and hydrogeologic issues for the Swedish high-level nuclear waste repository program, and has also worked on the German nuclear waste disposal program. He is a Fellow in the U.K Geological Society, and has authored over 160 publications.
- **Dr. Brenda J. Little** is Senior Scientist for Marine Molecular Processes at the U.S. Naval Research Laboratory in Stennis, Mississippi. She holds a Ph.D. in Chemistry from Tulane University, and is one of the world's leading experts in the field of microbial induced corrosion. She has spent several years studying the capacity of microorganisms in Yucca Mountain's "near-field" environment to induce corrosion of waste packages.

- **Dr. James D. Rimstidt** is Professor of Geochemistry at Virginia Tech, where he has specialized in the study of aqueous geochemistry and geochemical kinetics. He holds a Ph.D. in Geochemistry from Penn State, and has authored several books and a multitude of papers on geochemistry.

GEOLOGY

- **Dr. Maurice E. Morgenstein** is one of the world's leading geologists with broad expertise as well in geochemistry, mineralogy, geophysics, corrosion studies, and archeology. He is an eminent geo-archeologist, participating in some of the most famous digs in Egypt and elsewhere, and is currently a Visiting Scholar at the Archeological Research Facility at the University of California at Berkeley. He has spent nearly 20 years studying Yucca Mountain, particularly the anticipated "near field" environment surrounding that part of the repository that will house nuclear waste. He has led a team of eight other experts that have analyzed in detail that environment's potential to induce corrosion of waste packages.

CORROSION SCIENCE

- **Dr. Roger W. Staehle** is considered by many to be the leading expert in the world on corrosion, and is frequently referred to as "Mr. Corrosion." Most recently, he served as a consultant to the Columbia Investigative Board that evaluated the accident of the Space Shuttle Columbia. He holds a Ph.D. in Metallurgical Engineering from Ohio State University, and is the former Dean of the Institute of Technology at the University of Minnesota. He is a member of the National Academy of Engineering, and has won numerous awards for his work on corrosion. He has published 22 books and hundreds of papers on the subject. He has consulted for the NRC, the Electric Power Research Institute, dozens of nuclear utilities and nuclear research laboratories, and many national governments.
- **Dr. Aaron Barkatt** is a leading authority on the chemistry of waste package corrosion and on radiation chemistry. Currently Director of the Oxide Chemistry Group at Catholic University of America, he has done numerous in-depth studies of waste package corrosion for such entities as Duratek Corporation, NPD Nuclear Systems, Purdue University, and the Department of Energy. He has spent years studying the near-field chemistry of the repository

zone at Yucca Mountain, and its effects on waste packages and vitrified waste logs.

- **Dr. April L. Pulvirenti** holds a Ph.D. in Inorganic Chemistry from Purdue. She is presently the lead laboratory researcher for Nevada's team of experts studying the corrosion of Alloy-22 and Titanium-7, materials the Energy Department intends to use for Yucca Mountain's waste packages and its "drip shields." She presently holds a post-doctoral assignment with Dr. Barkatt at Catholic University, where her experiments are being conducted. She has presented numerous peer-reviewed papers of her Yucca studies.
- **Dr. Jeffrey A. Gorman** holds a Ph.D. in Engineering Science from CalTech. He is the leading water chemistry and corrosion expert for Reston, Virginia-based Dominion Engineering. Mr. Gorman has conducted numerous studies regarding nuclear and fossil power plants, for utilities worldwide as well as the Navy, the Department of Energy, and the Electric Power Research Institute.
- **Dr. Charles E. Marks** is a water chemistry expert for Dominion Engineering. He holds a Ph.D. in Chemical Engineering from University of Maryland, and has performed in-depth research into the corrosive effects of nuclear steam generator deposits. Mr. Marks has done extensive field studies in thermo-mechanical modeling, chemical kinetics, corrosion, and electrochemistry.

RADIONUCLIDE MIGRATION AND TRANSPORT

- **Dr. David A. Lever** is an internationally recognized expert in radioactive waste disposal and transport modeling. His company, Serco Assurance, is one of the leading entities in the world in the field of radioactive waste management. Dr. Lever managed the Nirex Safety Assessment Research Program in the U.K. for many years for the British repository program. He has been as member of an international peer review team established by the OECD's Nuclear Energy Agency to review the Belgian waste disposal program and various proposals submitted to the European Commission for member states. He holds a Ph.D. in Applied Mathematics from Cambridge University.
- **Dr. C. Peter Jackson** is an applied mathematician at Serco Assurance specializing in the groundwater flow and transport modeling for radioactive waste repositories and waste disposal facilities. He holds a Ph.D. in

Mathematics from Cambridge University, and played a pivotal role in assessments for the U.K.'s Nirex deep repository for intermediate-level radioactive wastes. Prior to joining Serco Assurance, he was Chief Hydrogeologist for AEA Technology, and was Senior Scientific Officer at the U.K. Atomic Energy Authority.

- **Dr. Andrew J. Baker** is an expert in safety assessment for nuclear facilities with Serco Assurance. He has worked on national repository projects in Australia, Britain, Bulgaria, Scotland, Lithuania, Russia, Hungary, and Slovakia. Prior to working with Serco Assurance, he was a Scientist with AEA Technology in Britain, and was a Scientific Administrator for the U.K. Natural Environment Research Council. He holds a Ph.D. in Earth Sciences from Oxford University.

TOTAL SYSTEM PERFORMANCE ASSESSMENT & BIOSPHERE STUDIES

- **Dr. Michael C. Thorne** is a world-recognized expert in the use of total system performance assessment in the evaluation of waste and repository sites. He holds a Ph.D. in Theoretical Physics from the University of Sheffield, England, and is a past Secretary of the International Commission on Radiological Protection (ICRP), where he led detailed international studies on the health effects of radiation. He has done extensive consulting work in connection with the British, French, and Swedish high-level nuclear waste repository programs, and has also done studies on the effects of the Chernobyl accident for the British Government, low-level radioactive waste disposal facilities, and the Nuclear Installations Inspectorate—the U.K.'s equivalent of the NRC.

VOLCANISM

- **Dr. Eugene I. Smith** is an eminent Volcanologist at the University of Nevada in Las Vegas, where he is a Professor of Geology and Chairs the Department of Geosciences. He holds a Ph.D. from the University of New Mexico. He is a Fellow in the Geological Society of America, and previously worked for the U.S. Geological Survey. Dr. Smith has conducted volcanism and volcanic rock studies for the U.S. Navy, the USGS, and NASA. He has authored numerous technical papers on volcanism.

- **Dr. Chih-Hsiang Ho** works with Dr. Smith at the University of Nevada, where he specializes in the statistical aspects of volcanism and is an expert in statistical analysis. He holds a Ph.D. in Statistics from University of Minnesota and is a professor in the University of Nevada's Department of Mathematical Sciences.

SEISMOLOGY

- **Dr. H. C. Clark** is an eminent seismologist and geologist with a Ph.D. in Geophysics from Stanford. He is professor emeritus of Geology at Rice University. His testimony on seismic risks associated with the proposed Sierra Blanca radioactive waste disposal site in South Texas was pivotal in then-Governor George Bush's decision to cancel the project. He has consulted for the U.S. Air Force, numerous petroleum companies, and a plethora of government entities. He has authored dozens of papers on geology, geophysics, and seismology.

WASTE FACILITY DESIGN & ENGINEERING

- **Allen L. Messenger** is a registered civil and environmental engineer who has designed, engineered, and built facilities for the storage and disposal of low-level radioactive, mixed, hazardous, and transuranic waste, and assisted with the permitting of those facilities with the NRC, the Department of Energy, and state regulatory agencies. He holds an M.S. in Civil Engineering from Texas A&M, and for several years was the Head of the Disposal Facilities Unit for the Texas Department of Water Resources.

NRC AND DOE REPOSITORY LICENSING ISSUES

- **Dr. Victor Gilinsky** is a former NRC Commissioner who holds a Ph.D. in Physics from CalTech. Prior to his NRC tenure, he was Head of the Physical Sciences Department and Director of Applied Science and Technology Program at the Rand Corporation. He was also Assistant Director for Policy and Program Review at the U.S. Atomic Energy Commission. He has conducted many consulting studies on nuclear matters as a private consultant.

- **Dr. John W. Bartlett** is the former Head of the Department of Energy's Yucca Mountain Program. He holds a Ph.D. in Chemical Engineering from Rensselaer Polytechnic Institute, and was previously a scientist with Battelle's Pacific Northwest Laboratories. He has extensive background on Yucca Mountain and the high-level waste program generally.

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ATTACHMENT 2

NEVADA'S YUCCA MOUNTAIN LEGAL TEAM

Nevada has assembled a world-class legal team to assist the Attorney General's Office in its fight against the Yucca Mountain nuclear dump. Here is a brief look at the team:

- **JOSEPH R. EGAN**

Lead attorney for Nevada's Yucca battle, Mr. Egan was appointed Special Deputy Attorney General to work closely with Attorney General Brian Sandoval, Deputy Attorney General Marta Adams, and Nevada's Agency for Nuclear Projects in developing and shaping the overall team and strategy. An MIT-trained nuclear engineer who once worked as a reactor engineer in a nuclear plant, Egan is chairman of Egan, Fitzpatrick, Malsch & Cynkar, LLC, a Washington D.C.-area firm that has handled some of the highest profile nuclear cases in the world in the past decade, including several multi-billion dollar cases. He has represented clients from 18 countries, and has been lead attorney in several large complex nuclear waste matters. He holds degrees in Physics (B.S.), Nuclear Engineering (M.S.), and Technology & Policy (M.S.) from MIT, and a law degree with honors from Columbia University.

- **MARTIN G. MALSCH**

Prior to joining Egan, Fitzpatrick, Malsch & Cynkar, Mr. Malsch, considered by many to be the most knowledgeable nuclear regulatory attorney currently practicing, was the Nuclear Regulatory Commission's top staff attorney for nearly two decades, holding the Acting General Counsel and Deputy General Counsel spots for a combined 15 years. He was also NRC's first Inspector General and received three Presidential Medals of Honor. Malsch has managed numerous NRC licensing hearings and federal court appeals for NRC up through the U.S. Supreme Court, participating in some of the key precedents that now dominate nuclear law. He authored virtually every adjudicatory decision issued by the Commission from 1980 to 1991, and was instrumental in designing many of NRC's existing rules of practice and its key regulations. He has also taught nuclear law at George Washington University Law School, where he was an Adjunct Professor. Malsch holds a Physics degree from Holy Cross College and a law degree from University of Connecticut.

- **ROBERT J. CYNKAR**

Prior to joining Egan, Fitzpatrick, Malsch & Cynkar as a partner, Mr. Cynkar was a partner in the firm of Cooper & Kirk. Mr. Cynkar is a noted federal litigator, particularly in disputes concerning the actions of the federal government. He is a former partner of Shaw Pittman, one of the nation's leading nuclear law firms, and has also served as an Assistant U.S. Attorney and as Deputy Assistant Attorney General of the Civil Division of the Justice Department. He also worked on Capitol Hill as counsel to both Nevada Senator Paul Laxault and Kansas Senator Bob Dole. He holds a B.A. from Princeton University, *magna cum laude*, and a law degree from New York University Law School, where he was a member of the Law Review.

- **ANTONIO ROSSMANN**

Mr. Rossmann, also appointed by Nevada as a Special Deputy Attorney General for the Yucca Mountain cases, is one of the nation's leading land use and natural resources attorneys. He previously assisted the state in killing the MX nuclear missile base that had been proposed for federal land in Nevada. He is a noted expert on the National Environmental Policy Act. A San Francisco-based attorney who founded the firm Rossmann and Moore, he has represented California and numerous of its cities and counties, and co-authored the treatise *California Environmental Law and Land Use Practice*. He graduated with honors from Harvard College and from Harvard Law School, where he was editor of the *Harvard Law Review*. Mr. Rossmann currently also teaches land use and environmental law at Boalt Hall School of Law, University of California at Berkeley.

- **HOWARD K. SHAPAR**

Currently *Of Counsel* to Egan, Fitzpatrick, Malsch & Cynkar, Mr. Shapar has been one of the world's leading nuclear law authorities for more than three decades. From 1976 to 1982, he was Executive Legal Director of the Nuclear Regulatory Commission, managing numerous complex licensing proceedings and rulemaking matters and setting broad Commission legal policy. He went on to serve until 1988 as Director General and Chief Executive Officer of the Paris-based Nuclear Energy Agency, a division of the Organization for Economic Cooperation and Development (OECD), where he spearheaded many international nuclear matters. From 1988 until joining Egan's firm in 2001, he was counsel to Shaw Pittman, one of the nation's leading nuclear law firms.

Shapar holds a B.A. degree from Amherst—graduating number one in his class—and a law degree from Yale.

- **CHARLES J. COOPER**

Mr. Cooper, whose Washington D.C. firm Cooper and Kirk is under contract to the Egan firm, has been ranked one of the nation's top constitutional and federal court litigators. In the Supreme Court frequently, he counts as his victories such cases as the overturning of the President's "line item veto" legislation (on behalf of New York) and the famous *Winstar* case. Cooper was formerly Assistant Attorney General of the Office of Legal Counsel, where he served as President's Reagan's attorney, and was the Deputy Assistant Attorney General of the Justice Department's Civil Rights Division. He holds a B.S. degree with honors from the University of Alabama School of Business Administration and a law degree from University of Alabama School of Law, where he was first in his class and editor-in-chief of the Law Review. He clerked for the Fifth Circuit and for U.S. Supreme Court justice (now Chief Justice) William H. Renquist.

- **WILLIAM H. BRIGGS, JR.**

Mr. Briggs, a Washington, D.C. litigator with Ross Dixon and Bell, is the former Solicitor of the Nuclear Regulatory Commission, where for five years he represented NRC in all litigation in which the agency was a party, managing several key Circuit Court and Supreme Court cases. Prior to that, he was an Assistant United States Attorney in the Civil Division of the Department of Justice. As a private litigator following his tenure at NRC, he has represented insurance companies in complex environmental and mass-tort matters, and has continued with his NRC representation of companies and employees of nuclear utilities facing NRC enforcement action. He holds a law degree with honors from Duke University Law School.

- **CHARLES J. FITZPATRICK**

A partner with Egan, Fitzpatrick, Malsch & Cynkar who manages that firm's San Antonio office, Mr. Fitzpatrick has litigated large, complex nuclear cases for the past two decades. Representing the City of San Antonio in one of the largest such disputes concerning Houston Lighting and Power Company's management of the South Texas Nuclear Project, Mr. Fitzpatrick helped secure over \$400 million in cumulative settlements. He has also been involved in

disputes concerning the Millstone Nuclear Power Plant in Connecticut, and Department of Energy sites in Portsmouth, Ohio; Rocky Flats, Colorado; and Paducah, Kentucky. He holds B.A. and M.A. degrees from Fordham University, and a law degree from St. Mary's University School of Law, where he served on the Law Review.

- **ROGER B. MOORE**

Mr. Moore, a partner in San Francisco-based Rossmann and Moore, is a specialist in environmental and land use law and litigation. He is co-author of the treatise *California Environmental Law and Land Use Practice*. He holds a B.A. degree with highest honors from Swarthmore College and a law degree *cum laude* from Harvard Law School. He clerked for chief judge Lawrence Karlton in U.S. District Court, Eastern District of California.

- **BRIAN S. KOUKOUTCHOS**

Mr. Koukoutchos is a specialist in constitutional and appellate litigation who has worked in frequent association with noted constitutional litigator Laurence H. Tribe, a professor at Harvard Law School. Mr. Koukoutchos has written innumerable briefs for U.S. Supreme Court cases. He is presently Visiting Professor of Constitutional Law and History at Haverford College, and previously served as Special Assistant Attorney General for the Commonwealth of Massachusetts. He was also Associate Independent Counsel for the Iran/Contra Investigation, a Teaching Fellow at Harvard University, and a federal district court clerk. He holds a B.A. in History from Haverford College with high honors, and a law degree from Harvard Law School, graduating *magna cum laude*.

- **PAUL H. LAMBOLEY**

Mr. Lamboley, a former Commissioner and Vice Chairman of the Interstate Commerce Commission, is an expert on transportation law, particularly rail issues. He has litigated a variety of environmental, hazardous waste, labor, antitrust, and rate cases in the rail context. He has also taught transportation law at several colleges and law schools, including Georgetown, Ohio State, Notre Dame, Wisconsin, Stanford, and University of Nevada. He holds a B.S. Degree from Notre Dame, and a law degree from University of Wisconsin.

- **VINCENT J. COLATRIANO**

Mr. Colatriano is currently an attorney with Cooper & Kirk. He is a veteran litigator in the fields of Administrative and Constitutional Law, and has worked on several large nuclear matters. He was formerly an attorney with Shaw Pittman, one of the nation's leading nuclear law firms. He holds a B.A. degree from George Washington University, where he graduated *summa cum laude*, and a law degree with highest honors from George Washington University National Law Center.

- **DAVID OWEN**

Mr. Owen is an environmental attorney with Rossmann and Moore. He holds a B.A. degree *magna cum laude* from Amherst College and received his J.D. from Boalt Hall School of Law, University of California Berkeley, where he was Editor-in-Chief of the *Ecology Law Quarterly*. Mr. Owen clerked for Judge Samuel Conti of the federal district court for the Northern District of California, and has worked professionally as a geologist and an environmental auditor.

* * * *

ATTACHMENT 3

3. Petitioner State of Nevada (“Nevada”) is a sovereign State of the United States, within which Yucca Mountain, designated as the site for the nation’s high-level nuclear waste repository, is entirely located. The NWPA expressly provides that Nevada is to receive grants from the Secretary of Energy for “the purpose of participating in activities required by” the NWPA.

4. Respondent Spencer Abraham, in his official capacity as the Secretary of Energy (the “Secretary”), is charged with numerous duties and responsibilities under the NWPA, including the duty to make grants to Nevada for the purpose of Nevada’s participation in activities required by the NWPA, and is responsible for the United States Department of Energy’s implementation of its duties under the NWPA.

5. Respondent United States Department of Energy (“DOE”) is an agency of the United States, and is the agency charged with implementing the Secretary’s duties and responsibilities under the NWPA.

BACKGROUND

6. In 1982, Congress enacted the NWPA to provide for a coordinated effort to address the national problem associated with the accumulation of high-level nuclear waste currently being stored at the Nation’s commercial nuclear reactors (none of which are located in Nevada) and at federal defense installations.

7. The goal of the NWPA is the assessment, development, and construction of an underground repository designed to geologically isolate high-level nuclear waste from the human environment.

8. From the beginning of serious consideration of a federal nuclear waste disposal program, Congress recognized the need for significant participation on the part of affected states in the establishment of such facilities. In enacting the NWPA, Congress found that “State and public participation in the planning and development of repositories is essential in order to promote public confidence in the safety of disposal of such waste and spent fuel.” 42 U.S.C. § 10131(a)(6).

9. Three federal agencies share responsibility for the assessment and potential development of a proposed repository under the NWPA. That responsibility includes elaborating on the standards mandated by Congress, licensing, and building the proposed repository under the NWPA and related federal statutes. If duly authorized, DOE is to build and operate the repository. 42 U.S.C. § 10134. NRC has the responsibility under the NWPA to determine whether to license the repository in accordance with statutory and regulatory standards. 42 U.S.C. § 10134(d). Under its licensing powers, NRC regulates the construction of the repository, licenses the receipt and possession of high-level radioactive waste at the repository, and authorizes the closure and decommissioning of the repository. 42 U.S.C. § 10141(b). The third federal agency, the Environmental Protection Agency (“EPA”), is charged with the statutory responsibility to set radiological standards governing the proposed facility at Yucca Mountain. 42 U.S.C. § 10141(a).

10. In 1987, the NWPA was amended to name the site at Yucca Mountain as the only candidate site to be evaluated and developed for a high-level nuclear waste repository. 42 U.S.C. § 10133.

11. It was the judgment of Congress, as set out in the NWPA, that the costs of nuclear waste disposal “should be the responsibility of the generators and owners of such waste.” 42 U.S.C. § 10131 (a)(4).

12. To pay the costs incurred in the development, licensing, and operation of the nuclear waste facility, including those costs incurred by States participating in that process, Congress established the Nuclear Waste Fund (the “Fund”) “composed of payments made by the generators and owners of such waste and spent fuel, [to] ensure that the costs of carrying out activities relat[ed] to the disposal of such waste and spent fuel will be borne by the persons responsible for generating such waste and spent fuel.” 42 U.S.C. § 10131 (b)(4).

13. The Fund is a separate account in the United States Treasury that is supported by a mandatory fee on electricity generated by nuclear power plants. 42 U.S.C. § 10222(c). The Fund is available to pay only the costs authorized by the NWPA, 42 U.S.C. § 10222 (d), and many of the expenditures to be made from the Fund, notably financial assistance to Nevada, are mandatory. 42 U.S.C. § 10136 (c). The Secretary is charged with the responsibility to administer and make expenditures from the Fund, subject to any direction given by Congress in subsequent appropriations legislation. 42 U.S.C. § 10222(e). If the Secretary determines that revenues

from fees are insufficient to meet the expenditures from the Fund commanded by the NWPA, he may propose an adjustment to the fee. 42 U.S.C. § 10222 (a)(4). In addition, “[i]f at any time the moneys available in the Waste Fund are insufficient to enable the Secretary to discharge his responsibilities” under the NWPA, the Secretary “shall issue to the Secretary of the Treasury obligations,” under terms they have agreed to, to provide the resources needed by the Fund. 42 U.S.C. § 10222(e)(5).

14. The Fund constitutes a “special fund” that is a continuing or permanent appropriation. As such, the Secretary may make the required expenditures from the Fund without any further action by Congress. Indeed, the Secretary is obligated to make certain expenditures from the Fund irrespective of whether Congress has enacted additional appropriations legislation.

15. Among the mandatory expenditures from the Fund, in the form of grants, are those to pay for the costs of participation by Nevada in repository site selection, development, licensing, and operation. 42 U.S.C. §§ 10136 (c), 10137 (a). The importance of Nevada’s participation, which to Congress’ mind justified such mandatory grants, is evident from the NWPA provision, 42 U.S.C. § 10137(c)(1)(B)(i) (emphases added), commanding that these grants be made:

The Secretary shall make grants to Nevada . . . for the purpose of enabling such State . . . *to review activities taken under this subtitle* with respect to the Yucca Mountain site for purposes of determining any potential economic, social, *public health and safety, and environmental impacts* of a repository on such State

....

16. The NRC licensing proceeding for Yucca is precisely the way such health, safety, and environmental impacts are determined and evaluated. Included in Nevada's costs to be paid by the Fund, as DOE not surprisingly has expressly acknowledged, are Nevada's costs "in preparing to conduct, and in conducting, its presentations to the NRC as 'participat[ion] in licensing activities,' including those that comprise administrative litigation before the NRC." Letter from W. John Arthur, III, Deputy Director, DOE Office of Civilian Radioactive Waste Management, to Robert R. Loux, Executive Director, Nevada Agency for Nuclear Projects (Dec. 22, 2003).

17. Though petitions for review challenging the lawfulness of various aspects of site selection are pending in this Court, DOE has continued its work to prepare its application for a license to construct and operate a high-level nuclear waste facility at Yucca Mountain. DOE insists that it will submit that application to the NRC in December 2004.

18. The Yucca Mountain licensing proceeding is anticipated to be the largest nuclear litigation of all time. The NRC currently envisions convening simultaneously three separate administrative law judge panels, perhaps in three separate cities (including Washington, D.C. and Las Vegas, Nevada). The panels will most likely convene for a minimum of four years. Under new NRC rules promulgated to manage such an extensive undertaking, the record will be developed electronically, with over 40 million pages of documents submitted into a central file online. In effect, the Yucca

Mountain licensing proceedings will be conducted in the nation's first all-electronic courtroom, embracing multiple forums spanning the nation. 10 C.F.R. Part 2, Subpart J.

19. The last three major NRC licensing proceedings, each far smaller than the licensing proceedings for the Yucca Mountain repository, involved many tens of millions of dollars for legal and expert witness fees alone. For example, the proceedings for the last nuclear power plant to be licensed, the Comanche Peak station in Texas, reportedly involved \$110 million in legal and consulting fees.

20. At the core of DOE's license application for the Yucca Mountain repository, and the focus of the NRC licensing proceedings, will be DOE's total systems performance assessment ("TSPA") by which DOE will attempt to establish that a high-level nuclear waste repository at Yucca Mountain will meet EPA and NRC standards for the long-term protection of human health and the environment. The preparation and evaluation of such a TSPA involves an array of complicated, highly scientific and technical issues, requiring the talents of a body of experts from diverse disciplines. The TSPA includes over 5,000 parameters, and over 7,000 mathematical models. The TSPA is so complex, and the uncertainties so large, that a full calculation (computer run) must be repeated some 300 times in order for the statistical significance of the results to be evaluated.

21. In addition to the preparation of the license application, the NRC and DOE have engaged in "prelicensing consultations" to identify the

“key technical issues” (“KTIs”) that are raised by the license application and to ensure that sufficient information on each such issue will be presented by DOE to allow a license application to be docketed. This work on KTIs has been underway for over a dozen years, addressing what has become 293 KTIs.

**THE SECRETARY'S UNLAWFUL FAILURE
TO MAKE GRANTS FROM THE NUCLEAR WASTE FUND**

22. Nevada has extensively participated in all the efforts involving selection and development of a high-level nuclear waste repository at Yucca Mountain pursuant to Congress' mandate in the NWPA. That participation has required a commitment of significant resources by Nevada to protect the interests of its citizens and to fulfill its role as contemplated by Congress.

23. The activity of Nevada as a significant party in the Yucca Mountain process will escalate enormously throughout 2004 and for several years beyond as DOE's license application is prepared, filed, and litigated before the NRC. Besides continuing its scientific and technical oversight of pre-licensing activities like the KTI process, Nevada has assembled a team of renowned, international experts to test and evaluate each likely component of DOE's TSPA that will provide the foundation for its application. This testing and evaluation involves extensive and highly technical experimentation and scientific studies in relevant areas of nuclear physics, climatology, hydrology, geology and geochemistry, waste package corrosion, geophysics, materials science, radionuclide transport, volcanism, seismicity, biosphere studies,

design engineering, transportation impacts, and others. Nevada's expert team has been publishing scientific papers setting out the results of much of this work for peer review. In addition, besides developing its case criticizing DOE's application in this way, to participate effectively Nevada will have to create its own TSPA setting out its "affirmative case" concerning the safety, or lack thereof, of the proposed facility.

24. For Nevada to undertake the level of participation in the Yucca Mountain licensing proceedings mandated by the NWPA will require significant expenditures. DOE has already earmarked approximately \$18 million just for its outside legal fees for its defense of its license application at the NRC. This does not include the hundreds of millions of dollars that are estimated to be spent (or already have been spent) by DOE on studies and experts for the NRC proceeding. The U.S. nuclear power industry, through its trade association, the Nuclear Energy Institute, has likewise been expending millions of dollars with the intent to defend DOE's application as a likely intervenor party in the NRC licensing proceeding.

25. The NRC has established extremely stringent requirements that must be met before Nevada will be allowed to participate in the NRC licensing hearing. Approximately three months before DOE submits its application to NRC, Nevada must certify to NRC that all of its documentary material and all of its scientific data on Yucca Mountain are available in an NRC-prescribed electronic form. 10 C.F.R. § 2.1003. Then, only 30 days after NRC docket the DOE application (including the TSPA) for review and

publishes a notice of hearing, Nevada must complete a detailed review of the entire application and provide a specific statement of every issue it wishes to raise in the hearing (contentions), together with a specification of every affected portion of the application, and a list and discussion of every available scientific source and document which it intends to rely upon. If a contention fails to meet these pleading standards, there will be no discovery, evidentiary hearing, or adjudicatory decision on the issue. 10 C.F.R. § 2.309(f).

26. Congress has regularly appropriated money “for nuclear waste disposal activities” from the Fund, sometimes explicitly earmarking part of the money so appropriated to be provided to Nevada. None of this appropriations legislation, however, has ever amended the NWPA or the specific provisions governing the operation and purposes of the Fund, or in any other way changed the NWPA’s commitment, and the Secretary’s obligation, to provide Nevada with the financial assistance it needs to participate in the Yucca Mountain process. Though the Secretary has apparently relied on these appropriations to at least in part fulfill his obligation to provide financial assistance to Nevada, such specific appropriations are not needed for the Secretary to make expenditures from the Fund, and none of these appropriations ever purported to relieve, or have as a matter of law relieved, the Secretary of his obligation under the NWPA to make grants from the Fund to Nevada if a sum appropriated by Congress in any given year failed to provide the financial assistance reasonably needed by Nevada.

27. On February 20, 2003 Nevada Governor Kenny C. Guinn wrote to the Secretary expressing his concern that no provision had been made to provide the required financial assistance to Nevada in the Fiscal Year ("FY") 2004 budget through the appropriations contemplated for that year. (Governor Guinn's letter is appended as Attachment A.) At the same time, the Secretary had given no indication that he intended to fulfill his legal obligation to provide this assistance, as expressly mandated by the NWPA, through grants to Nevada.

28. As of the filing of this Petition, the Secretary has not responded in any manner to Governor Guinn's letter.

29. On December 8, 2003, Nevada Attorney General Brian Sandoval wrote to the Secretary, noting that, after the passage of over nine months, the Secretary still had not seen fit to reply to, or even acknowledge, Governor Guinn's letter. (Attorney General Sandoval's letter is appended as Attachment B.) Attorney General Sandoval reiterated Nevada's protest that payment of the required financial assistance to Nevada appeared to have been totally eliminated for FY 2004, and that the financial assistance for FY 2005 also appeared to be in jeopardy. Attorney General Sandoval also emphasized that DOE's own Chief Financial Officer and its own Office of General Counsel had acknowledged in writing the Secretary's legal obligation to provide this assistance to Nevada by grants from the Fund irrespective of whether Congress enacts specific appropriations legislation each year providing such assistance.

30. On the same date, Attorney General Sandoval sent an identical letter to the Director of the Office of Management and Budget, Joshua B. Bolten (the "Director").

31. As of the filing of this Petition, neither the Secretary nor the Director have responded in any manner to Attorney General Sandoval's letter.

32. Congress ultimately appropriated only \$1 million for financial assistance to Nevada for FY 2004, \$4 million less than provided the previous year.

33. On February 23, 2004, Robert R. Loux, the Executive Director of Nevada's Agency for Nuclear Projects, wrote to Margaret Chu, the Director of DOE's Office of Civilian Radioactive Waste Management, noting that the advent of NRC licensing proceedings created a "critical and time-sensitive need for funds [for Nevada] to continue with development of its important scientific and technical studies that will be presented to NRC." (A copy of Director Loux's letter is appended as Attachment C.) Director Loux underscored that Nevada "will be an active statutory participant [in the NRC proceedings], both in addressing matters raised by DOE's application and in sponsoring its own affirmative scientific analyses of key areas important to evaluating repository safety." He went on to point out that "Nevada's role in the repository's licensing is thus as important to the public interest generally as it is to the citizens of Nevada specifically, since Nevada may well be the

only party-opponent to DOE with the resources to conduct meaningful studies to aid NRC in its examination.”

34. In that letter to Director Chu, Director Loux reiterated both the importance of the financial assistance to Nevada mandated by the NWPA so that Nevada could fulfill this important role in the NRC proceedings and the Secretary’s legal obligation to provide that assistance from the Fund.

35. As a result of the commitment of resources entailed by the impending NRC proceedings, and the utter silence of DOE in response to the urgent letters of Governor Guinn and Attorney General Sandoval, Director Loux expressed Nevada’s intention “to pursue a new process to ensure that Nevada’s participation in licensing is not effectively undermined by lack of essential funds.” Director Loux explained that this process is designed to “(1) guarantee the availability and ensure a certain transparency in [Nevada’s] use of financial assistance; (2) create a regular method, agreed upon before NRC proceedings begin, by which assistance is provided unencumbered by *ad hoc* judgments that may otherwise be expected given the adversarial relationship between DOE and Nevada; and (3) ensure appropriate auditing of Nevada’s expenditures.” Nevada’s goal, in short, is “to establish a transparent, settled regimen that will allow for prudent planning and a predictable, timely, and smooth flow of appropriate assistance to Nevada.”

36. In his letter, Director Loux proposed that for each fiscal year, beginning with FY 2004, Nevada provide DOE with a budget for the financial assistance it needs for that year. Nevada’s FY 2004 budget was attached to

Director Loux's letter. In this way, the Secretary will know up front what Nevada intends to use this assistance for (thus ensuring that these funds are used only for the purposes set out in the NWPA), and "will know the size of the grant he must make from the Waste Fund, taking into account any other funds that might have been appropriated for that fiscal year." A reasonable time after receiving Nevada's budget, Director Loux continued, the Secretary would "establish a letter of credit in the amount of the grant for that fiscal year, from which Nevada can draw funds as needed during the year."

37. Nevada's budget for FY 2004 as submitted to Director Chu is \$5 million. In light of Congress' FY 2004 appropriation of only \$1 million for assistance to Nevada, Director Loux asked that the Secretary make a grant from the Fund to establish a letter of credit for Nevada for FY 2004 in the amount of \$4 million.

38. Due to the urgency of Nevada's needs in the face of DOE's schedule, Director Loux asked Director Chu to respond to Nevada's proposal as set out in his letter by March 15, 2004.

39. No response of any kind from Director Chu was received by Director Loux by March 15, 2004.

40. Nevada must proceed with the work necessary to participate in the NRC licensing proceeding. However, the uncertainty concerning the availability of the financial assistance required by the NWPA because of the failure of the Secretary to make grants from the Fund, or even to establish a fair process by which such grants will be made, means that Nevada is unable

to undertake critical work that needs to be done and is now severely handicapped in its ability to participate effectively in the NRC proceedings, as mandated by the NWPA. Nevada's need for the financial assistance commanded by the NWPA has become acute.

41. Meanwhile, Nevada's adversary in those proceedings, DOE, with an appropriation this year alone of between \$550 to \$880 million for the Yucca project, is proceeding apace with its efforts to prepare a license application and plans to submit that application late this year. Indeed, the fact that DOE effectively controls the financial assistance Congress provided for its adversary, Nevada, that DOE has taken no action to provide the level of assistance now required by Nevada, and that DOE has ignored Nevada's entreaties to establish a grant making process that will be fair, objective, and in no way susceptible to manipulation according to the adversarial interests of DOE, strikingly illustrates the conflict of interest under which DOE is operating and which has driven it to violate the Secretary's obligation under the NWPA to provide financial assistance to Nevada.

WHEREFORE, Petitioner respectfully requests that the Court, *inter alia*:

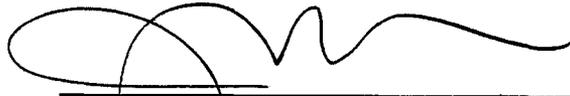
- (1) Grant this petition for review;
- (2) Declare the Secretary to be in violation of the law for his failure to provide grants to Nevada pursuant to Section 116 (c) of the NWPA;

- (3) Direct the Secretary to provide the grant from the Fund requested by Nevada for FY 2004;
- (4) Direct the Secretary to establish the process for making grants proposed by Nevada, or alternatively, to establish some other process that will guarantee Nevada the financial assistance to which it is entitled under the NWPA, that will constitute a regular, objective method for payment of such assistance that cannot be encumbered by *ad hoc* judgments of DOE growing out of its adversarial relationship with Nevada in the NRC proceedings, and that will ensure appropriate auditing of Nevada's expenditures;
- (5) Direct DOE to cease and desist all work, including work by its contractors and subcontractors, related to the preparation of a license application to be submitted to the NRC for construction of the Yucca Mountain repository, until such time as the Secretary has established the regular, objective method for payment of financial assistance to Nevada and has provided the grant from the Fund requested by Nevada for FY 2004; and
- (6) Provide for such other and further relief as the Court deems just and proper.

Respectfully submitted,

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Joseph R. Egan*
Counsel of Record

Attorneys for Petitioners

DATED: March 17, 2004
* Member, D.C. Circuit Bar

ATTACHMENT A

Governor Guinn Letter



OFFICE OF THE GOVERNOR

KENNY C. GUINN
Governor

RECEIVED

FEB 26 2003

February 20, 2003

NUCLEAR WASTE PROJECT OFFICE

Honorable Spencer Abraham
Secretary
Department of Energy
1000 Independence Ave, NW
Washington, D.C.

Dear Secretary Abraham:

I am writing to express my extreme concern and surprise over the Administration's act to eliminate Nevada's funding under the traditional state funding provisions of the Nuclear Waste Policy Act ("NWSA") for the 2004 budget. Pursuant to the literal provisions of the NWSA, as well as judicial precedent, it is clear that state funding of Yucca Mountain oversight by Nevada is both desirable and legally required to foster public confidence in the integrity of the proposed repository.

The NWSA proclaims that state participation "is essential to promote public confidence" and thereby provides that DOE "shall make grants to the State of Nevada for the purpose of participating in activities required" by the NWSA. See 42 U.S.C. §§ 10131(a)(6) and 10137(C) (emphasis added). Section 116(c)(1)(B)(i) provides that

[t]he Secretary shall make grants to Nevada ... for the purpose of enabling such State ... to review activities taken under this subtitle with respect to the Yucca Mountain site for purposes of determining any potential economic, social, public health and safety, and environmental impacts of a repository on such State....

It is my understanding that certain DOE representatives believe the project is ostensibly in the "licensing" phase, and therefore it is appropriate to deny federal funding to Nevada. This position is clearly incorrect. Section 117(a) of the NWSA prescribes participation by Nevada not only in site characterization and siting activities, but also in the review of "development design, licensing, construction, operation, regulation ... [and] decommissioning" of the repository. Indeed, Section 116(c)(4)(A)(iii) indicates that federal funding for Nevada under Sections 116 and 117 will end, with limited exceptions, only "[a]t the end of the 2-year period beginning on the effective date of any [NRC] license to receive and possess for a repository" in Nevada.

101 N. CARSON STREET • CARSON CITY, NEVADA 89701 • TELEPHONE: (775) 684-5670 • FAX: (775) 684-5683

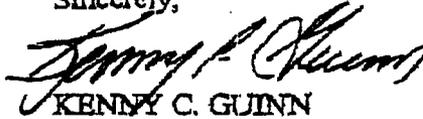
12/00/00
The Honorable Spencer Abraham
February 20, 2003
Page 2

As you know, the Ninth Circuit Court of Appeals broadly upheld Nevada's right to federal funding in *Nevada v. Herrington*, 777 F.2d 529 (9th Cir. 1985). In that case, the court recognized that "the dangers inherent in nuclear waste disposal mandate a close, independent scrutiny" by Nevada, and further held that states "should be entitled to the broadest possible rights and opportunities to participate in the development of the facilities...."

I am requesting that you inform me as to what action you intend to pursue to comply with the statute and provide Nevada its statutorily mandated funds. If necessary, Nevada is prepared to take legal action to restore these funds.

Thank you for your prompt attention to this critical issue.

Sincerely,



KENNY C. GUINN
Governor

VTO/fm

cc: ✓ Robert Loux, Executive Director
Agency for Nuclear Projects

ATTACHMENT B

Attorney General Sandoval Letter



STATE OF NEVADA
OFFICE OF THE ATTORNEY GENERAL

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E-mail: aginfo@ag.state.nv.us

BRIAN SANDOVAL
Attorney General

ANN WILKINSON
Assistant Attorney General

December 8, 2003

Honorable Spencer Abraham
Secretary
U.S. Department of Energy
1000 Independence Ave. S.W.
Washington, D.C. 20585

RE: Restoration of Yucca Mountain Oversight Funding for Nevada

Dear Mr. Secretary:

On February 20, 2003, Nevada's Governor Kenny C. Guinn wrote to you expressing surprise and concern that Nevada's funding under the traditional state funding provisions of the Nuclear Waste Policy Act ("NWP") had been altogether eliminated for the FY 2004 budget. A copy of his letter is attached. In that letter, Governor Guinn outlined the Department of Energy's ("DOE's") clear legal obligation under the NWP to provide funding for Nevada. He requested that you inform him of what actions DOE intended to take to comply with the law, and he stressed that Nevada was prepared to take legal action to enforce its statutory rights to restore these funds.

To date, more than nine months later, the Governor has received no response to his letter. Moreover, it appears that Nevada's funding for FY 2005 may also be in jeopardy.

DOE's obligation to fund Nevada's reasonable Yucca Mountain oversight activities has been affirmed by DOE's own Chief Financial Officer and its Office of General Counsel. On December 31, 1995, DOE's CFO Joseph F. Vivona wrote to the Chairman of the House Subcommittee on Energy and Water Development, Rep. John T. Myers, affirming that DOE was indeed legally obligated under the NWP to make payments to Nevada and affected units of local government even when the Appropriations Act contained no explicit

provisions for such funding. Specifically, after noting the consistent annual payments made historically for Nevada, DOE's CFO concluded:

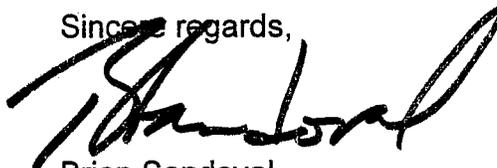
"After reviewing the statutes and the legislative history, the Department's Office of General Counsel has determined that while Congressional intent is not clear, the Appropriations Act and legislative history do not negate the Department's obligation to make payments to the State and affected units of local government under the NWPA."

A copy of that letter, and its supporting legal analysis by DOE's Office of General Counsel, is attached.

Nevada and its affected local government units have a number of critical oversight activities underway as DOE prepares to file its Yucca Mountain license application to the Nuclear Regulatory Commission in December 2004. These include scientific evaluations in relevant areas of climatology, hydrology, geology and geochemistry, the saturated and unsaturated zones, waste package corrosion, the near-field environment, radionuclide transport, volcanism, seismicity, biosphere studies, total system performance assessment, transportation impacts, and others. Nevada has engaged a world-class team of experts to conduct these studies. In some cases, Nevada's scientific studies are the only such studies being undertaken by anyone, insofar as DOE prematurely ceased its Yucca site characterization activities prior to you recommending the site to President Bush on February 14, 2002. For example, the federal Nuclear Waste Technical Review Board recently formally cited Nevada's corrosion studies as being pivotal to assessment of the repository's safety.

Please be advised that Nevada will seek legal redress against DOE in the federal Court of Appeals if funding for Nevada's necessary oversight activities at Yucca Mountain is not restored by January 1, 2004.

Sincere regards,



Brian Sandoval
Attorney General

cc: Ms. Lee Liberman Otis
General Counsel

Attachments (2)

SENT BY: NUCLEAR PROJECTS AGENCY;

775 687 5277;

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PAGE 2/3



OFFICE OF THE GOVERNOR

KENNY C. GLINN
Governor

RECEIVED

FEB 26 2003

February 20, 2003

NUCLEAR WASTE PROJECT OFFICE

Honorable Spencer Abraham
Secretary
Department of Energy
1000 Independence Ave, NW
Washington, D.C.

Dear Secretary Abraham:

I am writing to express my extreme concern and surprise over the Administration's act to eliminate Nevada's funding under the traditional state funding provisions of the Nuclear Waste Policy Act ("NWPA") for the 2004 budget. Pursuant to the literal provisions of the NWPA, as well as judicial precedent, it is clear that state funding of Yucca Mountain oversight by Nevada is both desirable and legally required to foster public confidence in the integrity of the proposed repository.

The NWPA proclaims that state participation "is essential to promote public confidence" and thereby provides that DOE "shall make grants to the State of Nevada for the purpose of participating in activities required" by the NWPA. See 42 U.S.C. §§ 10131(a)(6) and 10137(C) (emphasis added). Section 116(c)(1)(B)(i) provides that

[t]he Secretary shall make grants to Nevada ... for the purpose of enabling such State ... to review activities taken under this subtitle with respect to the Yucca Mountain site for purposes of determining any potential economic, social, public health and safety, and environmental impacts of a repository on such State....

It is my understanding that certain DOE representatives believe the project is ostensibly in the "licensing" phase, and therefore it is appropriate to deny federal funding to Nevada. This position is clearly incorrect. Section 117(a) of the NWPA prescribes participation by Nevada not only in site characterization and siting activities, but also in the review of "development design, licensing, construction, operation, regulation ... [and] decommissioning" of the repository. Indeed, Section 116(c)(4)(A)(iii) indicates that federal funding for Nevada under Sections 116 and 117 will end, with limited exceptions, only "[a]t the end of the 2-year period beginning on the effective date of any [NRC] license to receive and possess for a repository" in Nevada.

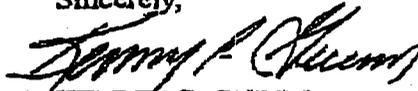
The Honorable Spencer Abraham
February 20, 2003
Page 2

As you know, the Ninth Circuit Court of Appeals broadly upheld Nevada's right to federal funding in *Nevada v. Herrington*, 777 F.2d 529 (9th Cir. 1985). In that case, the court recognized that "the dangers inherent in nuclear waste disposal mandate a close, independent scrutiny" by Nevada, and further held that states "should be entitled to the broadest possible rights and opportunities to participate in the development of the facilities...."

I am requesting that you inform me as to what action you intend to pursue to comply with the statute and provide Nevada its statutorily mandated funds. If necessary, Nevada is prepared to take legal action to restore these funds.

Thank you for your prompt attention to this critical issue.

Sincerely,


KENNY C. GUINN
Governor

VTO/fm

cc: ✓ Robert Loux, Executive Director
Agency for Nuclear Projects



December 31, 1995

The Honorable John T. Myers
Chairman
Subcommittee on Energy and Water Development
U.S. House of Representatives
Washington, D.C. 20515

Post-it™ Fax Note	7671	Date	1/3/96	# of pages	4
To	Bob Lewis	From	John Lewis		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #		Fax #			

Dear Mr. Chairman:

This letter is to inform you that the Department proposes to provide funds from amounts appropriated in the Fiscal Year 1996 Energy Water Appropriations Act to the State of Nevada and units of local government affected by the Department's site characterization activities at Yucca Mountain.

Section 116 of the Nuclear Waste Policy of 1982, as amended (NWSA), provides that the Secretary of Energy "shall make grants to the State of Nevada and any affected unit of local government" for the purpose of enabling the State and local government to review and monitor the Department's site characterization activities at Yucca Mountain, Nevada. Over the last several years, the Energy and Water Development Appropriations Acts have included explicit statutory maximum funding levels for these grants and the Department has consistently provided the maximum level of funding specified in those appropriations Acts.

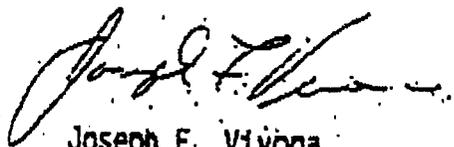
However, the Fiscal Year 1996 Energy and Water Appropriations Act does not address these grants. While both the Senate and the House Reports refer to these grants, it is not clear from the language in these reports whether the House and Senate Appropriations Committees contemplated the Department's making payments to the State and local governments pursuant to section 116 of the NWSA.

After reviewing the statutes and the legislative history, the Department's Office of General Counsel has determined that while Congressional intent is not clear, the Appropriations Act and legislative history do not negate the Department's obligation to make payments to the State and affected units of local government under the NWSA. A copy of that analysis is attached.

In light of the requirement currently in the NWSA to provide funds to affected governments, the Department proposes to provide such payments, but at a lower level than was provided in prior years. The payments would be reduced in proportion to the reduction in funding for program activities.

We would be pleased to discuss our proposal with you. To address immediate needs of the governments concerned, our present intention is to proceed with payments at the end of January of 1996.

Sincerely,



Joseph F. Vivona
Chief Financial Officer

cc: Honorable Tom Beville, Ranking Minority Member
Subcommittee on Energy and Water Development

Attachment

**LEGISLATIVE HISTORY OF
FY 1996 ENERGY AND WATER DEVELOPMENT APPROPRIATIONS ACT
RELATING TO GRANTS UNDER THE NUCLEAR WASTE POLICY ACT**

Section 116 of the Nuclear Waste Policy of 1982, as amended, provides that the Secretary of Energy "shall make grants to the State of Nevada and any affected unit of local government" for the purpose of enabling the State and local government to review and monitor the Department's site characterization activities at Yucca Mountain, Nevada. Over the last several years, the Nuclear Waste Disposal Fund provisions of the Energy and Water Development Appropriations Acts have included explicit statutory maximum funding levels for these grants and the Department has consistently provided the maximum level of funding specified in those appropriations Acts.

In contrast, neither the Fiscal Year 1996 Energy and Water Appropriations Act nor its Conference Report addresses these grants. Both the Senate and House Reports explain, in part, that:

Consistent with the program redirection compelled by this appropriation, and pending the enactment of new authorizing legislation respecting the civilian radioactive waste program, no funds are included for the State of Nevada or units of local government affected by activities associated with the characterization of a permanent repository site.

The House Report further provides that:

Subject to authorization, however, funds made available by this appropriation may be used by the Department to provide grants to units of local government affected by site characterization or interim storage activities. The use of such funds would be restricted to purposes authorized by law subject to the conditions enumerated in prior Energy and Water Development Appropriations Acts.

The Senate language is similar but not identical to the House language. It provides that:

Subject to the provisions of this bill or any new authorization, however, funds made available by this appropriation may be used by the Department to provide payments to units of State and local government affected by site characterization or interim storage activities. The use of funds would be restricted to purposes authorized by law, subject to the conditions enumerated in prior Energy and Water Development appropriations acts, and submitted for review and approval of the Appropriations Committees of both Houses prior to payment by the Department of Energy.

While Congressional intent is not clear, we interpret the statute and legislative history as permitting the Department to make payments to the State and affected units of local government if authorized by other law. We interpret the language in the 1996 House and Senate Reports stating "no funds are included for the State of Nevada or units of local government" to refer to the lack of an explicit provision of such funds in the 1996 appropriation (in contrast to prior appropriations Acts), rather than an intent to prohibit the use of these funds for such purpose. This interpretation is consistent with language in these Reports providing "funds made available by this appropriation may be used by the Department to provide payments" to units of local government, subject to any limiting conditions in authorization Acts and prior appropriations Acts.

Given the requirement currently in the Nuclear Waste Policy Act to provide funds to affected governments, and the legislative history discussed above, the Department may provide such payments from amounts appropriated in the Fiscal Year 1996 Energy and Water Development Appropriations Act.

ATTACHMENT C

Director Loux Letter



OFFICE OF THE GOVERNOR
AGENCY FOR NUCLEAR PROJECTS

1761 E. College Parkway, Suite 118

Carson City, Nevada 89706

Telephone: (775) 687-3744 • Fax: (775) 687-5277

E-mail: nwpo@nuc.state.nv.us

February 23, 2004

Margaret Chu, Director
Office of Civilian Radioactive Waste Management
Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Dear Dr. Chu:

The Department of Energy's (DOE) effort to establish a nuclear waste repository at Yucca Mountain is moving forward to licensing proceedings before the Nuclear Regulatory Commission (NRC). Indeed, you have recently confirmed that DOE remains committed to submitting its license application to NRC late this year. Those proceedings will be NRC's most extensive ever, addressing a variety of complicated scientific and technical issues over the span of several years. Nevada, of course, will be an active statutory participant; both in addressing matters raised by DOE's application and in sponsoring its own affirmative scientific analyses of key areas important to evaluating repository safety. Nevada's role in the repository's licensing is thus as important to the public interest generally as it is to the citizens of Nevada specifically, since Nevada may well be the only party-opponent of DOE with the resources to conduct meaningful studies to aid NRC in its examination.

Essential to Nevada's meaningful participation is the financial assistance that the Secretary of Energy must provide Nevada from the Nuclear Waste Fund under Section 116 of the Nuclear Waste Policy Act. DOE has recently again recognized that Section 116 imposes on DOE an obligation to assist Nevada financially, and that this obligation extends to funding Nevada's participation in and administrative litigation before the NRC.¹ In view of this obligation, and Nevada's critical and time-sensitive need for

¹ See Letter from W. John Arthur, III, Deputy Director, DOE Office of Civilian Radioactive Waste Management, to Robert R. Loux, Executive Director, Agency for Nuclear Projects (Dec. 22, 2003) ("[W]e have concluded that the above [§ 116] funds

funds to continue with development of its important scientific and technical studies that will be presented to NRC beginning early next year, we intend to pursue a new process to ensure that Nevada's participation in licensing is not effectively undermined by lack of essential funds.

This process is intended to (1) guarantee the availability and ensure a certain transparency in our use of financial assistance; (2) create a regular method, agreed upon before NRC proceedings begin, by which such assistance is provided unencumbered by *ad hoc* judgments that may otherwise be expected given the adversarial relationship between DOE and Nevada; and (3) ensure appropriate auditing of Nevada's expenditures. Since Nevada's use of financial assistance has been routinely audited in the past, I am writing today specifically to address my first two points.

Essential to Congress' mandate in Section 116 is the fact that the Nuclear Waste Fund constitutes a "special fund" out of which the Secretary is commanded to make grants to Nevada without any need for specific additional appropriations legislation from Congress. As the General Accounting Office has explained, "[S]tatutes which authorize the collection of fees and their deposit into a particular fund, and which make the fund available for expenditure for a specified purpose, constitute continuing or permanent appropriations, that is, the money is available for obligation or expenditure without further action by the Congress." 1 PRINCIPLES OF FEDERAL APPROPRIATIONS LAW (the "GAO REDBOOK") (1991), 1991 WL 645708 (G.A.O.), at *2.

Not only do the provisions of Section 116 and those establishing the Nuclear Waste Fund obviously create such a special fund, but also the key institutional players in the federal budget process have long recognized this fact. Thus, the 11-digit account identification code assigned to the Nuclear Waste Fund by the Office of Management and Budget clearly identifies the Fund as a "special fund." See, e.g., THE BUDGET FOR THE FISCAL YEAR 2005, at 404-405. GAO has also referred to the Nuclear Waste Fund as a classic example of a special fund. See, e.g., U.S. General Accounting Office, BUDGET ISSUES: EARMARKING IN THE FEDERAL GOVERNMENT, at 6 (1995); GAO REDBOOK, 2001 WL 34038519 (G.A.O.), at *1. Moreover, after studied deliberation by its General Counsel's office, DOE itself has acknowledged that the Secretary's obligation to make payments to Nevada under Section 116 is not dependent on subsequent appropriations legislation. As DOE's Chief Financial Officer put it during consideration of the FY 1996 Energy and Water Appropriations Act, "the Appropriations Act and legislative history do not negate the Department's obligation to make payments to the State and affected units of local government under the NWPA." Letter from Joseph F. Vivona, Chief Financial Officer, DOE, to John J. Myers, Chairman, House Subcommittee on Energy and Water Development (Dec. 31, 1995) (attaching analysis by DOE's Office of General Counsel).

may be used by the State in preparing to conduct, and in conducting, its presentations to the NRC as 'participat[ion] in licensing activities,' including those that comprise administrative litigation before the NRC.')

To be sure, Congress has regularly enacted annual appropriations legislation addressing assistance to Nevada from the Nuclear Waste Fund. Yet, none of these appropriations purported to be the only assistance that might be provided to Nevada from that Fund, nor did they seek in any way to amend the provisions of the NWPA, or in any other way change the obligations of the Secretary under Section 116. Certainly, if Congress has made such an appropriation, the Secretary should not ignore those funds in ensuring that Nevada has the appropriate amount of assistance under the NWPA. (That is, the Secretary would make grants above such an appropriation only to the extent reasonably needed by Nevada.) The law is clear, however, as DOE has recognized, that the Secretary has a legal duty to make grants from the Nuclear Waste Fund to Nevada that are needed for Nevada's participation in the NRC licensing proceedings even if Congress has enacted no appropriation for such funding or Nevada's needs exceed the appropriation.

That clearly is the case for FY 2004, as Congress sharply lowered its historical \$5 million annual appropriation to approximately \$1 million at the very time that Nevada's needs for financial assistance for the impending NRC proceeding are at their most critical juncture. Thus, Nevada will clearly need funds from the Nuclear Waste Fund that exceed this year's appropriation.

Operating within the confines of the financial assistance mandate of the NWPA, as DOE, Nevada, and the GAO apparently all understand it, the practical task before us, then, is to establish a transparent, settled regimen that will allow for prudent planning and a predictable, timely, and smooth flow of appropriate assistance to Nevada. Planning with respect to this financial assistance obviously entails a budget, and we hereby provide you with our budget, attached to this letter, for these funds for fiscal year '04. We intend to furnish you an annual budget for each fiscal year in which licensing remains underway. With such a budget in hand, the Secretary will know the size of the grant he must make from the Waste Fund, taking into account any other funds that might have been appropriated for that fiscal year. As you can see, with a total budget of \$5 million needed for FY '04, we do not seek a level of funding that exceeds the recently historical amounts we have been provided with from the Nuclear Waste Fund (though clearly we will need more than this sum annually as licensing proceedings actually commence). Such annual budgets will additionally inform you of the uses to which we plan to put this money, helping to confirm that we do not use this assistance for purposes not authorized by the NWPA.

Second, we propose that within a reasonable time after receiving our budget, the Secretary establish a letter of credit in the amount of the grant for that fiscal year, from which Nevada can draw funds as needed during the year. In light of our budget and Congress' FY 2004 appropriation of approximately \$1 million for such assistance, the amount of this letter of credit for FY 2004 should be \$4 million.

As I am sure you appreciate, we have much work to do this year, with an array of highly qualified experts preparing for the NRC proceeding. Accordingly, coming to an agreement with you about the regimen to ensure the appropriate, impartial disbursement

of financial assistance as we go forward is genuinely urgent. I therefore request that you respond to Nevada's proposed administrative approach as soon as possible, but in no event later than March 15. I would of course be happy to discuss this proposal and other, perhaps equally workable options with you at any time.

We are disappointed that the Secretary has not responded to letters from Nevada's Governor last summer and Nevada's Attorney General this past fall concerning the funding issue – a rather extraordinary silence given the numerous state comity and state participation provisions in the NWPA and the stature of the requesters, which generally entitles them to a modicum of official respect. If DOE does not respond to this letter in the time requested, therefore, especially given the urgency of Nevada's needs, we will assume that DOE takes the official position that it will not assist Nevada over and above the Congressional appropriation level for FY '04, and, as the Attorney General indicated in his letter, we will promptly seek a judicial remedy.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert R. Loux", written in a cursive style.

Robert R. Loux
Executive Director

enclosure

cc: Governor Guinn
Attorney General Sandoval
Nevada Congressional Delegation
Commission on Nuclear Projects

BUDGET FOR FEDERAL FISCAL YEAR 2004

1. Engineered Barrier System \$2,000,000.00

Funds budgeted here will be used for expert services to oversee, evaluate, and independently verify DOE's ongoing Key Technical Issues investigations regarding the Engineered Barrier System, including but not limited to the Alloy-22 waste package material and the Titanium-7 drip shield material. This work will also include oversight, evaluation, and independent verification of Key Technical Issues investigations regarding the effects of the near-field environment on the Engineered Barrier System.

2. Volcanism Key Technical Issues Oversight \$700,000.00

Funds budgeted here will be used for expert services to oversee, evaluate, and independently verify DOE's ongoing Key Technical Issues investigations regarding igneous intrusion/extrusion scenarios and the probability of such.

3. Oversight of Key Technical Issues Investigations

These activities cover all aspects of DOE's ongoing investigations to close the remaining Key Technical Issues agreements. The State activities will include oversight, evaluation, and verification of DOE's Key Technical Issues investigations regarding such issues as the Engineered Barrier System, volcanism, hydrology, and geology.

- a) Geology Key Technical Issues Oversight \$300,000.00

Funds budgeted here will be used for expert services to evaluate DOE's activities with respect to Key Technical Issues and their resolution regarding Yucca Mountain geology and its implications for repository site performance and geological aspects of repository design and construction.

4. Total System Performance Assessment \$1,000,000.00

Funds budgeted here will be used to evaluate selected portions of DOE's Total Systems Performance Assessment (TSPA) to determine the credibility of DOE's TSPA results for Yucca Mountain and to evaluate levels of uncertainty associated with DOE's TSPA results.

5. Licensing Preparation \$1,000,000.00

Funds budgeted here will be used by Nevada's technical expert team and lawyers to prepare for participation as a party in the potential licensing interactions between the Nuclear Regulatory Commission and the Department of Energy for the proposed Yucca

Mountain repository. This category will also include preparation for and participation in the Licensing Support Network, i.e., computer systems to interact with the network, document preparation to place necessary documents on the network, etc.

CERTIFICATE OF SERVICE

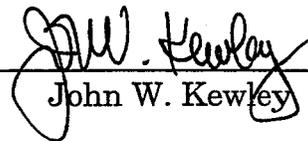
I certify that a true and correct copy of the foregoing document with Attachments A, B, and C was served this 17th day of March, 2004 via Federal Express on:

The Hon. Spencer Abraham
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Lee Liberman Otis, Esq.
General Counsel
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

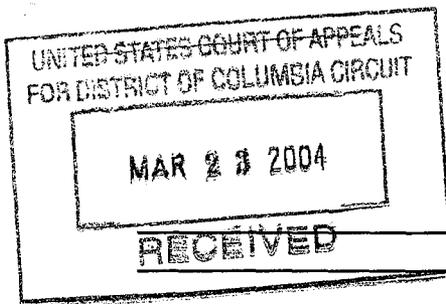
The Hon. John Ashcroft
Attorney General of the United States
U.S. Department of Justice
Room B-103
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530-0001

Roscoe C. Howard, Jr., Esq.
U.S. Attorney for the District of Columbia
555 Fourth Street, N.W.
Washington, D.C. 20530



John W. Kewley

ATTACHMENT 4



No. 04-1082

IN THE UNITED STATES COURT OF APPEALS
FOR THE DISTRICT OF COLUMBIA CIRCUIT

STATE OF NEVADA,

Petitioner,

v.

SPENCER ABRAHAM, et al.,

Respondents.

ORIGINAL

MOTION TO EXPEDITE CONSIDERATION
OF THE PETITION FOR REVIEW

JOSEPH R. EGAN*
Special Deputy Attorney General
CHARLES J. FITZPATRICK
MARTIN G. MALSCH*
ROBERT J. CYNKAR*
Egan, Fitzpatrick, Malsch & Cynkar,
PLLC
7918 Jones Branch Drive, Suite 600
McLean, VA 22102
(703) 918-4942

BRIAN SANDOVAL*
Attorney General
MARTA A. ADAMS*
Sr. Deputy Attorney General
State of Nevada
100 North Carson Street
Carson City, NV 89701
(775) 684-1237

* Member, D.C. Circuit Bar

PRELIMINARY STATEMENT

The State of Nevada's Petition for Review seeks to remedy the Secretary of Energy's (the "Secretary") failure to comply with his obligation under the Nuclear Waste Policy Act (the "NWPA"), 42 U.S.C. § 10136 (c), to make grants to Nevada to pay for the costs of the State's participation in the development, licensing, and operation of a high-level nuclear waste repository proposed to be located at Yucca Mountain, Nevada. Specifically, for Fiscal Year 2004, Nevada is entitled to a \$4 million grant for these purposes from the Nuclear Waste Fund (the "Waste Fund").¹ Furthermore, as the process established by the NWPA moves into licensing proceedings before the Nuclear Regulatory Commission (the "NRC") in which the Secretary and Nevada are adversaries, a regular, objective method for payment of the assistance required by the NWPA should be established to avoid even the appearance of manipulation of the Waste Fund based on DOE's obvious interest in depriving Nevada of the resources essential to its effective participation in those proceedings.

Indeed, Nevada comes before this Court on this funding issue at a point when it now appears that DOE, instead of honoring the Secretary's duty to make grants to Nevada from the Waste Fund, is twisting the Secretary's control over the Waste Fund into a weapon by which to starve its opponent of the resources it urgently needs to effectively litigate before the

¹ With \$1 million appropriated by Congress, this \$4 million completes the amount Nevada has reasonably budgeted for FY 2004 for Yucca Mountain activities required to be paid for from the Waste Fund. DOE has not contested the legitimacy of Nevada's specific needs.

NRC. As described in Nevada's Petition, Nevada has tried *for over a year* to avoid recourse to this Court by attempting to initiate a cooperative resolution of this issue by letters from Governor Guinn and from Attorney General Sandoval to the Secretary, and, most recently, from the Executive Director of Nevada's Agency for Nuclear Projects to the Director of the Department of Energy's ("DOE's") Office of Civilian Radioactive Waste Management. See Petition for Review at ¶¶ 27-39. Not one of these letters from the State's most senior officials was met with even the courtesy of an acknowledgement of their efforts. Clearly, any hope that DOE's broader NWPA obligations outside its NRC license application might not be poisoned by its adversarial self-interest in the NRC proceedings has been dispelled.

In contrast, Nye County, Nevada, which is not opposing the Yucca facility, submitted a work plan to justify the financial assistance it was to receive for FY 2004 on November 18, 2003. See Letter from Les W. Bradshaw, Manager, Nye County Department of Natural Resources and Federal Facilities, to Wayne Miller, Contracting Officer, DOE Office of Repository Development 1 (Jan. 27, 2004) (attached as Exhibit 1) ("Bradshaw Letter 1"). On January 26, 2004, DOE responded, suggesting some changes. See Letter from Wayne Miller, Contracting Officer, DOE Office of Repository Development, to Les W. Bradshaw, Manager, Nye County Department of Natural Resources and Federal Facilities (Jan. 26, 2004) (attached as Exhibit 2). Those changes were made by Nye County, and their revised work plan returned to DOE on January 27, 2004. See Bradshaw Letter 1 (Exhibit 1).

Less than a week later, on February 2, 2004, DOE replied with a few more changes to be made. See Letter from Birdie V. Hamilton-Ray, Contracting Officer, DOE Office of Repository Development, to Les W. Bradshaw, Manager, Nye County Department of Natural Resources and Federal Facilities (Feb. 2, 2004) (attached as Exhibit 3). Nye County, in turn, submitted a further revised work plan on February 3, 2004. See Letter from Les W. Bradshaw, Manager, Nye County Department of Natural Resources and Federal Facilities, to Wayne Miller, Contracting Officer, DOE Office of Repository Development (Feb. 3, 2004) (attached as Exhibit 4). Three days later, on February 6, DOE replied, approving the Nye County work plan. See Letter from Wayne Miller, Contracting Officer, DOE Office of Repository Development, to Les W. Bradshaw, Manager, Nye County Department of Natural Resources and Federal Facilities (Feb. 6, 2004) (attached as Exhibit 5). In short, Nye County, an ally of DOE concerning the Yucca repository, in the span of a little over 11 weeks, had their plan for financial assistance under the NWPA reviewed by DOE, had a substantive exchange with DOE concerning that plan, revised their plan, and had it approved. And all this happened while the top elected official of the whole State was not graced with even a response to his funding concerns on behalf of the State for over 56 weeks, and that clock is still running.

DOE's stonewalling in the face of Nevada's responsible efforts to resolve this problem has now left Nevada with less than 20 percent of the resources it reasonably needs – and is entitled to – at the very time the most

intensive preparation must be undertaken for what will be the most complicated and costly licensing proceeding in the NRC's history. As we will describe in more detail below, the scientific tests, analyses, and examinations involving a variety of sophisticated disciplines that Nevada must undertake to critically evaluate DOE's extraordinarily complex analyses and modeling and to prepare its own affirmative case are now being starved for resources, and will be irreparably prejudiced if the Court follows its normal schedule for adjudication of our Petition for Review.

Moreover, Congress has expressly underscored the importance of full and effective participation by Nevada in the planning and development of a repository. Indeed, Congress has called such participation "*essential* . . . to promote public confidence in the safety of disposal of such waste and spent fuel." 42 U.S.C. § 10131 (a)(6) (emphasis added). Thus there is an unusual public interest in this case, and in its expeditious adjudication by this Court.

Finally, DOE has admitted that Nevada is entitled to funding for this participation. See Petition for Review at ¶16. DOE has not claimed that the budget submitted by Nevada for its activities for FY 2004 is unreasonable or in any way inappropriate under the terms of the NWPA. And, of course, Congress' command to the Secretary is unequivocal: "The Secretary *shall make grants to the State of Nevada*" 42 U.S.C. § 10136 (c) (emphasis

added). Thus, the issues to be adjudicated – whatever they might be² – appear to be narrow.

Accordingly, pursuant to FED. R. APP. P. 2 and D.C.CIR. PRACTICE AND INTERNAL PROCEDURES, RULE 8 (B), Nevada respectfully requests the Court to expedite consideration of the Petition for Review and to enter an order establishing the following briefing schedule:

- (1) Petitioner's brief due 15 days after the granting of this motion by the Court.
- (2) Respondents' brief due 15 days after service of Petitioner's brief.
- (3) Petitioner's reply brief due 7 days after service of Respondents' brief.
- (4) Oral argument to be scheduled as soon thereafter as practicable.

ARGUMENT

I. EXPEDITED CONSIDERATION OF THE PETITION IS NECESSARY TO AVOID IRREPARABLY HANDICAPPING NEVADA'S PARTICIPATION IN THE DEVELOPMENT AND LICENSING OF THE PROPOSED YUCCA REPOSITORY.

An expedited review is essential for Nevada to exercise its rights to participate in the NRC licensing process for Yucca Mountain due to the critical events that will occur in that process between now and this December. Although December 2004 (only nine months from now) marks the point at which DOE has repeatedly insisted it will submit its license

² Since neither the Secretary nor any other DOE official has ever responded to Nevada's communications concerning the funding issue raised by the Petition for Review, we do not know what, if any, objection DOE has to the position taken by Nevada.

application to the NRC, the NRC process will actually begin six months earlier, in June (only three months from now), when DOE must certify to NRC that the massive documentary material on which its application will be based is available in an NRC-approved electronic form in a "Licensing Support Network." ("LSN"). See 10 C.F.R. § 2.1003. The LSN database will be used as the essential reference source for all technical documents used in DOE's application and in the NRC proceedings. The NRC contemplates that the licensing proceedings will involve few hard copies of documents; all the documentary evidence for the licensing proceeding will be drawn from the LSN and used in electronic form. DOE represented to the NRC in February of this year that it will be attempting to certify to the LSN between three and four *million* documents totaling between 27.5 and 36.5 *million* pages. And when DOE makes this certification in June, Nevada must be prepared to review the totality of DOE's submission in order to participate in NRC's review of the completeness of DOE's certification. Affidavit of Robert R. Loux at ¶ 2 (Attached as Exhibit 6) ("Loux Affidavit").

At the same time, Nevada must do the necessary preparation to submit its own documents to the LSN and to certify the completeness of its submission to the NRC by September. See 10 C.F.R. § 2.1003. In essence, this means that by September Nevada will have had to marshal all the Nevada documentary evidence on which it might rely to challenge the premises of DOE's application and to advance its affirmative case, and then convert that material – smaller than DOE's likely submission but still

involving thousands of pages of documents – into the electronic format mandated for the LSN. If Nevada fails to certify that this submission is complete, that is, that it covers the universe of Nevada documents to be used in the licensing proceeding, it may be forever foreclosed from participating as a party in the those proceedings. 10 C.F.R. § 2.1012. By this summer, then, Nevada will have had to have made at least a preliminary evaluation of the likely premises of DOE's as-yet-unfiled application, the flaws in DOE's analyses, and the premises of Nevada's own affirmative case. Loux Affidavit at ¶ 3.

When DOE files its application in December, NRC will review that submission for completeness. Even though the application will primarily include summaries of scientific data and analyses, it will still be over 10,000 pages long. The details will be in the scientific references, drawn from the tens of millions of pages of DOE and other documents in the LSN. The heart of DOE's application will be the so-called total systems performance assessment ("TSPA") of how the repository will perform. See 10 C.F.R. §§ 63.102 (j); 63.113; 63.114. The TSPA involves over 5,000 parameters and 7,000 mathematical models. Existing versions available to Nevada are so complicated and the uncertainties in parameters and models are so large that each full calculation (a computer run or "simulation") must be run some 300 times in order for the statistical significance of the results to be evaluated. Loux Affidavit at ¶ 4.

Once the completeness determination is made, NRC will formally docket DOE's application and issue the notice of hearing required by the rules. Nevada will then have only *30 days* to complete a detailed review of the entire application, and all of the supporting materials, and provide NRC with a specific statement of *every issue* it wishes to raise in the licensing hearing (contentions), together with specification of *every source* it intends to rely upon in sufficient detail to convince NRC there is a genuine issue for a hearing. If a contention fails to meet NRC's extremely stringent pleading requirements, there will be no discovery, evidentiary hearing, or adjudicatory decision on the issue. See 10 C.F.R. § 2.309. Moreover, NRC will not admit a contention conditionally, subject to discovery to provide all of the necessary technical support. Thus, NRC's rules impose perhaps the greatest litigation burden in the initial stage of the proceeding, before a single bit of discovery is conducted and before a single witness is identified. Loux Affidavit at ¶ 5.

Obviously, it will be impossible for Nevada to meet NRC's initial pleading requirements (and complete the prerequisite detailed review of DOE's application and scientific references) in 30 days after the notice of hearing (or, even assuming NRC takes 90 days to do its completeness review, 120 days after DOE tenders its allegedly-complete application to NRC). Therefore, Nevada must now continue to fund its scientific experts, retain new ones, begin its review of the LSN material and what its experts believe will be included in DOE's application, as well as initiate the process of drafting "contentions" that will satisfy NRC's rules. Loux Affidavit at ¶ 6.

Nevada plans contentions in the areas of climatology, infiltration, waste package corrosion, radionuclide transport, hydrology, geology, geophysics, geochemistry, seismicity, volcanism, biosphere uptake, transportation impacts, quality assurance, expert elicitation, probabilistic risk assessment, uncertainty analysis, and radionuclide sorption, to name a few. Nevada has engaged 25 renowned experts from around the world to assist with the essential studies from which these contentions will be drawn, and it needs to be able to pay them for their work. Their work will be of vital importance to the scientists and engineers at the NRC in their evaluation of DOE's application and representations that this repository will be safe. This work, which is essential to preserve and protect Nevada's right to participate in the NRC licensing hearing, will cost substantially in excess of the limited funds (\$1 million) DOE has made available this year. The budget proposed by Nevada (\$5 million) would barely be adequate to support this work now, and substantially more funds than that will be required annually for at least four years thereafter. Loux Affidavit at ¶ 7.

Interestingly, Nye County – again, an ally of DOE -- now claims that it needs an *additional* \$3.25 million *annually* for “oversight” and “mitigation as it relates to successful implementation of the repository program,” *plus* an unspecified amount for “existing and future cooperative agreements.” Letter from Les W. Bradshaw, Manager, Nye County Department of Natural Resources and Federal Facilities, to Margaret S. Y. Chu, Director, DOE Office of Civilian Radioactive Waste Management 1 (Jan. 8, 2004) (attached

as Exhibit 7). Apparently, this \$3.25 million is over and above \$2.14 million Nye County is to receive for FY 2004 activities. *Id.* at 2. How Nye County could plausibly be entitled to \$2.14 million in assistance (much less \$5.39 million) for FY 2004, while Nevada, which must shoulder the full burden of the NRC licensing proceedings, is only to get \$1 million, is unexplained and unexplainable. Nye County, for its part, at least equates its responsibilities with those of the State. See *id.* (“First, [Nye County] and the State have a NWPA authorized oversight responsibility to ensure the health, safety and economic well being of its citizens and the environment.”).

Moreover, when dealing with an entity that supports its objectives, DOE apparently can consider providing funding irrespective of appropriations legislation. In the specific recommendations Nye County offered in requesting additional funding, for example, it suggested that DOE “provide separate FY 04 program funds *over and above the Section 116 (c) appropriation* above in the amount of \$800,000 for the Nye County Department of Natural Resources and Federal Facilities to transition as its ‘On-Site Representative.” *Id.* (emphasis added). Similarly, Nye County recommended that DOE budget separate FY 05 program funds, *over and above the Section 116 (c) appropriation*, in the amount of \$2,250,000 for the Nye County Department of Natural Resources and Federal Facilities to transition as its ‘On-Site Representative.” *Id.* (emphasis added)

Nevada’s proposed budget includes the following, all of which are identified as key technical safety issues by the NRC:

(a) \$2,000,000 for scientific evaluation of DOE's proposed engineered barrier system, including scientific studies of corrosion of the Alloy-22 high-level radioactive waste package and Titanium-7 drip shield which DOE currently claim will not corrode and fail for ten-thousand years despite the presence of corrosion agents in the waste emplacement tunnels.

(b) \$700,000 for scientific evaluations of the probability and effects of volcanic eruptions in Yucca Mountain.

(c) \$300,000 for general scientific review of other key technical issues including especially investigations of Yucca Mountain geology.

(d) \$1,000,000 for independent scientific evaluation of DOE's TSPA, including especially levels of uncertainty in the DOE mathematical models of repository performance, the abstractions of those models used in the TSPA, and the thousands of different parameters that serve as inputs to the calculations. Currently, TSPA calculations produce results that can differ by as much as a factor of one million, depending on the choice of models and parameters.

(e) \$1,000,000 for licensing preparation, including preparation for LSN certification and drafting of contentions for submission to the NRC. Loux Affidavit at ¶ 8.

If Nevada were forced to assume that no more than \$1 million would be available this year, its ongoing scientific research on issues (a) through (d)

above would need to be stopped or cut to the bone. For example, scientific studies of the corrosion implications of the interaction among the Alloy-22 waste package, the Titanium-7 drip shield, and the steel mesh tunnel lining (used to prevent rock-fall) would need to be abandoned. Also, Nevada would be unable to conduct its own drilling into aeromagnetic anomalies in the vicinity of Yucca Mountain. This drilling enables researchers to estimate the probability of a volcanic eruption. Drilling into anomalies not selected by DOE for its own drilling program is important because the estimated probability of an eruption may depend on which anomalies are selected for drilling. Another example of work that would need to be abandoned is drilling into the ground south of the repository to obtain data needed to model the flow of radioactive waste from the unsaturated to the saturated zone. Data about flow in the alluvium in the saturated zone would be especially useful because the data obtained by DOE so far is very limited. Loux Affidavit at ¶ 9.

If Nevada were forced to assume that no more than \$1 million would be available this year, Nevada would need to focus almost exclusively on item (e) above to avoid being shut out of the NRC proceeding at its very outset for failure to give NRC an adequate LSN certification or file adequately supported contentions. This would be a tragedy, for scientific data from sources other than those sponsored by DOE is already scarce. Moreover, Nevada would also be forced to limit severely its pre-application review of DOE documents, with the certain result that important safety issues will

never be taken up in the hearing because Nevada was unable to meet NRC's stringent pleading requirements. Loux Affidavit at ¶ 10.

Unless Nevada is provided with adequate resources now, but especially beginning in June, it will be unable to protect and preserve its rights to participate in the NRC hearing. DOE surely knows this. The money requested by Nevada this year is not out of proportion to historic funding levels and is only about one per-cent of DOE's annual Yucca Mountain's budget and will barely be missed by DOE and its contractors. Loux Affidavit at ¶ 11. DOE's refusal to comply with the NWPA and grant Nevada the funds it is entitled to under the NWPA is a blunt litigation tactic, designed to achieve a licensing victory by starvation of its opponents rather than by scientific merit.

II. THE FAILURE OF THE SECRETARY TO FULFILL HIS OBLIGATION TO MAKE GRANTS TO NEVADA IS SUBJECT TO SUBSTANTIAL CHALLENGE.

As noted above and in our Petition for Review, Nevada has made several highly visible efforts to secure from DOE the funding to which it is entitled under the NWPA, but those efforts have been met with deliberate indifference and silence. Accordingly, the failure of the Secretary to provide the grant required has never been justified, much less explained. With no plausible defense of the Secretary's failure to fulfill his statutory obligation having been set out, that failure of the Secretary to comply with the NWPA must be seen as subject to an overwhelming challenge in this case, not simply a "substantial" challenge.

The legal obligation of the Secretary to make a grant to Nevada is clear. See 42 U.S.C. § 10136 (c) (“The Secretary *shall* make grants to the State of Nevada”) (emphasis added). The NWPA goes on to specify the purposes for which such a grant may be used. See 42 U.S.C. §§ 10136 (c), 10137 (a), 10222 (d). Moreover, this grant is to be made from the Waste Fund, 42 U.S.C. § 10136 (c)(5), which consists of fees collected by the Secretary from utilities whose waste will ultimately be disposed of at the repository, along with “any appropriations made by Congress.” 42 U.S.C. § 10222 (a)-(c). These attributes combine to make the Waste Fund a “special fund” that constitutes a continuing or permanent appropriation. As the General Accounting Office (“GAO”) has explained, “[S]tatutes which authorize the collection of fees and their deposit into a particular fund, and which make the fund available for expenditure for a specified purpose, constitute continuing or permanent appropriations; that is, the money is available for obligation or expenditure without further action by the Congress.” U.S. General Accounting Office, 1 PRINCIPLES OF FEDERAL APPROPRIATIONS LAW (the “GAO REDBOOK”) (1991), 1991 WL 645708 (G.A.O.), at *2. See also *id.*, at *2-3 (giving examples of special funds including mobile home inspection fees, St. Lawrence Seaway user fee tolls, the Panama Canal Revolving Fund, and Tennessee Valley Authority power program funds).

Indeed, the Waste Fund is explicitly identified as such a special fund by its 11-digit account identification code assigned by the Office of Management and Budget. See U.S. General Accounting Office, A GLOSSARY

OF TERMS USED IN THE FEDERAL BUDGET PROCESS at 127 (1993); THE BUDGET FOR THE FISCAL YEAR 2005, at 404-405. Notably, GAO has used the Waste Fund as an example of a special fund:

Special fund accounts are established to record receipts collected from a specific source and earmarked by law for a specific purpose or program. Special funds operate like trust funds, the only difference is that they are not designated as trust funds in authorizing legislation. *The Nuclear Waste Fund is an example of a special fund account.*

U.S. General Accounting Office, BUDGET ISSUES: EARMARKING IN THE FEDERAL GOVERNMENT, at 6 (1995) (emphasis added). See also GAO Redbook, 2001 WL 34038519 (G.A.O.), at *1 (describing the Nuclear Waste Fund as an example of a special fund account).

Because the Waste Fund is such a “special fund” that constitutes a continuing appropriation, the Secretary’s obligation to make grants to Nevada under the NWPA is not contingent upon further appropriations acts by Congress. The only qualification on the Secretary’s obligation is that the funds provided through such a grant must be used for the purposes set out in the NWPA. The purposes for which Nevada plans to use its grant for FY 2004 are clearly described in the budget it has proposed, and no objection to that budget has been made. See Petition for Review at ¶¶36-37. No question has been raised concerning the appropriateness of Nevada’s proposed uses for this money. Moreover, all expenditures by Nevada are routinely audited by DOE.

In sum, there is no legal justification for the failure of the Secretary to fulfill his admitted obligation to make grants to Nevada under the NWPA. At the very least, the Secretary's failure to make these grants is subject to considerably more than a substantial challenge.

III. THERE IS AN UNUSUAL PUBLIC INTEREST IN PROMPT DISPOSITION.

The Yucca Mountain facility would be the nation's – indeed, the world's – first high-level nuclear waste repository. The public importance of Nevada's participation in the repository's site selection, development, licensing, and operation in the mind of Congress has long been evident from the face of the NWPA. Congress recognized that “State and public participation in the planning and development of repositories is *essential* in order to promote public confidence in the safety of disposal of such waste and spent fuel.” 42 U.S.C. § 10131(a)(6) (emphasis added). The public significance of Nevada's participation is also seen in the NWPA's provision commanding that grants be made to Nevada to support this participation:

The Secretary shall make grants to Nevada . . . for the purpose of enabling such State . . . *to review activities taken under this subtitle* with respect to the Yucca Mountain site for purposes of determining any potential economic, social, *public health and safety, and environmental impacts* of a repository on such State

42 U.S.C. § 10137(c)(1)(B)(i) (emphases added). NRC's licensing proceeding has as its precise purpose the evaluation of the “public health and safety, and environmental impacts” of the Yucca repository.

Moreover, Congress has expressly declared it to be the policy of the United States that the costs of nuclear waste disposal “should be the

responsibility of the generators and owners of such waste.” 42 U.S.C. § 10131 (a)(4). As a result, the Waste Fund is “composed of payments made by the generators and owners of such waste and spent fuel, [to] ensure that the costs of carrying out activities relat[ed] to the disposal of such waste and spent fuel will be borne by the persons responsible for generating such waste and spent fuel.” 42 U.S.C. § 10131 (b)(4). None of the waste to be stored at the proposed repository was generated by Nevada or by any facility in Nevada. Thus, it is doubly important that Nevada not have to bear the costs of “activities relat[ed] to the disposal of such waste.”

Finally, Nevada is likely to be the only party-opponent of the repository in the adversarial licensing proceeding with the resources to mount a significant, meaningful, and scientifically informed challenge. If Nevada’s participation is undermined through DOE’s choking of its funds, that proceeding will amount to little more than a rubber stamp for the nation’s most environmentally significant public works project. Certainly that proceeding will not amount to the serious evaluation of the substantive environmental problems caused by the Yucca facility that this Court clearly expects based on DOE’s representations in related litigation. See Transcript of Oral Argument, *Nuclear Energy Inst., Inc. v. U.S. Environmental Protection Agency*, No. 01-1258, at 149-52, 166-71 (D.C. Cir. Jan. 14, 2004) (colloquy between Judges Edwards and Tatel and counsel as to whether Nevada will be allowed to raise substantive environmental issues in NRC proceeding).

In short, the public interest converges on the effective participation of Nevada and the support of that participation by grants from the Waste Fund. Indeed, these two are inextricably linked: Nevada's theoretical ability to participate becomes practically effective in large measure *because of the support from the Waste Fund*. The public has an interest in ensuring that these two are not turned against each other by the Secretary's control over grant-making from the Fund being used to undermine Nevada's ability to participate in the NWPA process. Accordingly, given the impact of the Secretary's failure to provide the financial assistance mandated by the NWPA on Nevada's ability to effectively participate in the NRC licensing right now, an impact, as described above, that will become rapidly more acute in the next months, there is an unusual public interest in the prompt disposition of this case.

CONCLUSION

For the foregoing reasons, Petitioner requests that the Court grant this motion to expedite consideration of the Petition for Review and establish a briefing schedule along the lines we have proposed.

Respectfully submitted,

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Senior Deputy Attorney General

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* – Member, D.C. Circuit Bar

Dated: March 23, 2004

EXHIBIT 1



Nye County

Department of Natural Resources & Federal Facilities

1210 E. Basin Rd. Ste. #6 • Pahrump, Nevada 89060

(775) 727-7727 • Fax (775) 727-7919

04-058-LB (L)

January 27, 2004

Wayne Miller, Contracting Officer
Department of Energy
Office of Repository Development
1551 Hillshire Drive
Las Vegas, NV 89134

Nye County's Proposed Fiscal Year (FY04) Work Plan

Dear Mr. Miller:

This letter is in response to your January 26, 2004 letter documenting your review of, and requested clarifications and recommended changes to Nye County's FY04 Work Plan.

Attachment I is our original FY04 Work Plan as submitted November 18, 2003 with a red line strikeout that addresses your recommended changes and requests for clarifications. Attachment II is the revised version of Nye County's FY04 Work Plan incorporating all the documented changes.

The following clarifications are submitted to complement the detailed changes highlighted in Attachment I:

Item 1:

- (a) Nye County has a clear understanding that oversight activities shall not include economic development.
- (b) In response to the OIG audit and meetings with ORD, Nye County adopted a new reporting system in June, 2003 in which all activities, progress reports, invoices and time sheets are directly referenced to a specific allowable activity under the NWPA.
- (c) Nye County has a clear understanding that no oversight funds are used to support other DOE cooperative agreements. In March, 2003 Nye County adopted a new cost allocation system for shared overhead costs and have instituted new time sheets to record staff time which is directly allocable to separate funding programs based upon time spent in conducting activities allowable under those programs.
- (d) Nye County has a clear understanding that oversight activities shall not include coalition building.

Page 2 of 3
Wayne Miller
January 27, 2004

Items 2 through 19 are incorporated as noted in Attachment I with the following requested clarifications:

Item 2: Part 1.1.3 has been revised as noted in Attachment I. The review of DOE activities related to the YMP is an allowable activity as provided by NWPA Section 116(c)(1)(B)(i). Perhaps no other national mission has involved as many institutional stakeholders and generated as much public policy analysis and scrutiny as has the YMP and the storage of high level radioactive waste. Nye County is just one of many national, regional and Nevada-based stakeholders reviewing and assessing DOE activities from a variety of health, safety, scientific, regulatory, political, social, economic and environmental perspectives. Significant resources have been invested by these national, regional and state entities to develop informational resources, data, reports and studies which assess DOE YMP activities. All parties involved in the YMP program benefit from the collection and assessment of this body of work and technical knowledge. As such, with limited oversight resources, Nye County's oversight program will continue activities and interactions with these entities and stakeholders for the purpose of reviewing DOE activities through third-party scientific, technical, and institutional assessments and knowledge.

Item 4: The clarification has been made in Part 1.2.17 to indicate "employment by place of work and by place of residence". This is an important workforce concept because Clark County residents working at Yucca Mountain are counted as part of the Nye County workforce.

Item 10: Part 1.2.3 has been reworded: "Identify and recommend mitigating measures, as opposed to economic development, *to enhance potential positive impacts to off-set any potential negative impacts*. Mitigating measures may include direct payments, joint projects, program management policies, local capability enhancements, and/or compensations as appropriate.

Item 16: Clarification comment on part 2.2.1.13 "*Nevada Water Rights Association*": Participation in activities of this Nevada organization is an incidental part of Nye County's oversight activities as outlined in Part 1.1.3. Nye County participates in activities of this group in order to "provide information to Nevada residents" [Section 116(c)(1)(B)(iv)] on the impact of DOE actions related to the YMP and possible impacts upon water and water rights as assessed by the site county. This participation is important for Nye County to gain a better technical understanding of issues related to water and water rights in Nevada. This understanding directly assists Nye County to become technically prepared to make informed comments and recommendations to DOE [Section 116(c)(1)(B)(v)] and to be better prepared to provide information to Nye County citizens on YMP water and water rights issues as they affect Nye County [Section 116(c)(1)(B)(iv)].

Item 17: Clarification comment on Part 2.2.1.14 "*National Association of Regulatory Utility Commissioners (NARUC)*". Participation in activities of this organization is an incidental part of Nye County's oversight activities as outlined in Part 1.1.3. This national organization is a long-time DOE YMP stakeholder and has significant resources and capabilities to impact DOE activities related to the YMP. Nye County's review of DOE's activities [Section 116(c)(1)(B)(i)] is enhanced by interactions with NARUC and by participation in selective activities of NARUC which deal with YMP. These interactions assist Nye County gain a better technical understanding of YMP issues and directly assists Nye County to become technically prepared to make informed comments and recommendations to DOE [Section 116(c)(1)(B)(v)] and to be

Page 3 of 3
Wayne Miller
January 27, 2004

better prepared to provide information to Nye County citizens on YMP impacts and issues [Section 116(c)(1)(B)(iv)].

Clarification comment on Part 2.2.1.24 "Nevada Association of Counties (NACO)" and part 2.2.1.25 "Nevada League of Cities and Municipalities (NLCM)". Participation in activities with these Nevada organizations is an incidental part of Nye County's oversight activities as outlined in Part 1.1.3 and only involves NACO and NLCM activities related to the YMP. Nye County participates in activities of these groups in order to "provide information to Nevada residents" [Section 116(c)(1)(B)(iv)] on the impacts of DOE actions related to the YMP and possible impacts upon Nevada and upon Nye County. This participation allows Nye County to receive and then provide current information to Nye County citizens on State of Nevada activities [Section 116(c)(1)(B)(iv)] and further allows Nye County to be better informed to make recommendations and comments to DOE [Section 116(c)(1)(B)(v)].

Clarification comment on Part 2.2.1.26 "Nuclear Energy Institute (NEI)". Participation in activities of this organization is an incidental part of Nye County's oversight activities as outlined in Part 1.1.3. This national organization is a long-time DOE YMP stakeholder and has significant resources and capabilities to impact DOE activities related to YMP. Nye County's review of DOE's activities [Section 116(c)(1)(B)(i)] is enhanced by interactions with NEI and by participation in selective activities of NEI which deal with the YMP. These interactions assist Nye County gain a better technical understanding of YMP issues and directly assists Nye County to become technically prepared to make informed comments and recommendations to DOE [Section 116(c)(1)(B)(v)] and to be better prepared to provide information to Nye County citizens on YMP impacts and issues [Section 16(c)(1)(B)(iv)].

We look forward to your expeditious approval of Attachment II as our FY04 Work Plan and subsequent disbursement of FY04 Oversight Funds.

Respectfully,
NYE COUNTY, NEVADA



Les W. Bradshaw
Department Manager

LB/js

Attachments: as stated

cc: W. John Arthur, DOE
Allen Benson, DOE
Russ Dyer, DOE

EXHIBIT 2



Department of Energy
Office of Civilian Radioactive Waste Management
Office of Repository Development
1551 Hillshire Drive
Las Vegas, NV 89134-6321

QA: N/A

JAN 26 2004

OVERNIGHT MAIL

Mr. Les W. Bradshaw, Manager
Nye County Department of Natural Resources
and Federal Facilities
1210 East Basin Road, Suite 6
Pahrump, NV 89060

Subject: Nye County's Proposed Fiscal Year (FY) 2004 Work Plan

Dear Mr. Bradshaw:

Nye County's proposed work plan for oversight of the Yucca Mountain Project (YMP) for FY 2004 has been reviewed and the following clarifications and recommended changes are provided:

1. In implementing the work plan, it is understood that Nye County must ensure that:
 - None of the activities undertaken include economic development.
 - For all activities undertaken and all meetings attended, the county will be able to demonstrate a clear and documented nexus between those activities and the potential impacts of a repository at Yucca Mountain on Nye County. With regard to meetings, the county, and not the U.S. Department of Energy (DOE), is responsible for determining which meetings to attend using oversight funds.
 - Direct funds provided to Nye County for oversight of the YMP under the Nuclear Waste Policy Act of 1982 (NWPA), as amended, are used for those oversight activities authorized under the §116 (c)(1)(B), subsections (i), (ii), (iv), and (v) of the NWPA. These funds may not be used to augment cooperative agreement activities funded separately as specific projects.
 - None of the interactions with stakeholders will consist of coalition building, an activity that is prohibited using funds provided under the NWPA.
2. In part 1.1.3, please clarify in the work plan how the interactions with "national, regional, state and local businesses, state and local governments and industry groups" are consistent with the focus of §116 (c)(1)(B)(i) of the NWPA, which is to review the activities conducted under Sections 111 to 125 of the NWPA for the purpose of determining possible impacts on a specific unit of government and its residents.
3. The activities in parts 1.1.5 and 1.1.6 belong under part 1.2 of the proposed work plan because they are related to developing a request for impact assistance rather than reviewing activities to identify possible impacts.

Mr. Les W. Bradshaw

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JAN 26 2004

4. In part 1.1.6, in the second sentence, please clarify in the work plan what the terms "... workstation and residency ..." mean.
5. In part 1.1.9, the second sentence more appropriately belongs in section 1.2 of the proposed work plan.
6. In parts 1.1.11, 1.1.13, and 1.1.17, the assessment of cumulative impacts of activities and agencies not directly related to the YMP is not an activity provided for under the referenced sections of the NWPA. As provided above, a clear and documented nexus between an activity and the potential impacts of a repository at Yucca Mountain on the county is required.
7. In part 1.1.13, collecting information and conducting assessments on low-level radioactive waste and transuranic shipments and routing in Nye County are unallowable activities unless a clear relationship to YMP activities and impacts can be demonstrated.
8. In part 1.1.15, assessment of the potential effects of YMP high-level radioactive waste and spent nuclear fuel transportation routing and operations on threatened and endangered species and on areas of environmental sensitivity is an allowable activity. Because these activities focus on transportation, they more appropriately belong in part 1.2 of the proposed work plan. Identification of the effects of other federal actions on threatened and endangered species and environmentally sensitive areas is not an allowable use of oversight funds.
9. In part 1.1.16, this would more appropriately fit under part 1.2, and only then if the intent is to use the information in developing an impact assistance request.
10. In part 1.2.3, please note that "enhance potential positive impacts" fits as "mitigation" only if it serves to offset negative impacts of the YMP.
11. In part 1.2.7 and 1.2.8, it is not clear how assessing cumulative impacts will help assess the impacts of the YMP in support of development of a request of impact assistance. Under the NWPA, only the impacts of the YMP may be used as the basis for impact assistance. Only studies regarding down-gradient impacts from YMP activities would be allowable. The use of data regarding Nevada Test Site (NTS) activity impacts on YMP activities appears to be allowable. However, performing studies regarding down-gradient impacts of NTS activities appears unallowable.
12. Part 1.3.3 is seeking input from Nye County groups. If such information is being sought in order to provide it to DOE, then this activity belongs in Section 1.4.
13. Part 1.4.9 belongs more appropriately in Section 1.3 as communication to and with Nye County groups and officials.
14. Sections 1.4.14 to 1.4.18, to the extent that these activities are authorized and focused on interacting with or providing comments to others than DOE, they belong more appropriately under part 1.3 of the proposed work plan.

Mr. Les W. Bradshaw

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JAN 26 2004

15. In Section 1.4.16, pending a final opinion by DOE's General Counsel, Nye County is advised to not use oversight funds to develop license contentions.
16. In Section 2.2.1.13, it is possible that the first sentence is meant to convey that the activity is part of developing an impact assistance request. However, it does not appear that making a presentation on this topic to others than DOE would fit within §116 (c)(1)(B). Clarification is required in the work plan.
17. In Sections 2.2.1.14 and 2.2.1.24 through 2.2.1.26, please clarify in the work plan how meeting with any of the entities fits within the provisions of §116 (c)(1)(B).
18. The budget in Section 3 is noted. However, the final amounts to be incorporated in it remain subject to the distribution of oversight funds provided by the FY 2004 Energy and Water Appropriations Act for oversight activities by the Affected Units of Local Government (AULG). The county's budget will also be impacted by the remaining balance to be recovered as the result of the DOE/Inspector General (IG) Audit Report (DOE/IG-0600) of May 2003, as well as by a final resolution of the pending issue regarding the retention of interest earned by the AULG.
19. In Section 5.1, the DOE does not at this time anticipate separate funding under the NWPA for the on-site representative authorized the county by the NWPA. As in the past, funding for that representative will come from Nye County's portion of the FY 2004 oversight funding.

Please submit a final copy of Nye County's work plan with appropriate changes. If you have any questions regarding this letter, please contact me at (702) 794-1362.

Sincerely,



Wayne B. Miller
Contracting Officer

Mr. Les W. Bradshaw

-4-

JAN 26 2004

cc:

Margaret Chu, DOE/HQ (RW-1), FORS

A. B. Benson, DOE/ORD (RW-2W),
Las Vegas, NV

R. E. Lupton, DOE/ORD (RW-2W),
Las Vegas, NV

W. B. Miller, DOE/ORD (RW-31W),
Las Vegas, NV

S. L. Rives, DOE/ORD (RW-2W),
Las Vegas, NV

H. C. White, Jr., DOE/ORD (RW-2W),
Las Vegas, NV

EXHIBIT 3



Department of Energy
Office of Civilian Radioactive Waste Management
Office of Repository Development
1551 Hillshire Drive
Las Vegas, NV 89134-6321

QA: N/A

FEB 02 2004

Mr. Les W. Bradshaw, Manager
Nye County Department of Natural Resources
and Federal Facilities
1210 East Basin Road, Suite 6
Pahrump, NV 89060

Subject: Nye County's Revised Proposed Fiscal Year (FY) 2004 Work Plan

Dear Mr. Bradshaw:

Reference: Ltr, Bradshaw to Miller, dtd 01/27/04 (Nye County's Proposed Fiscal Year (FY04) Work Plan)

Nye County's revised proposed work plan for oversight of the Yucca Mountain Project (YMP) for FY 2004 has been reviewed and, upon submission of a final version incorporating the following changes, will be approved.

1. The discussions provided in the January 27, 2004, cover letter to the County's revised work plan regarding sections 2.2.1.14, 2.2.1.24, 2.2.1.25, and 2.2.1.26 need to be incorporated into the respective sections of the work plan.
2. In our January 26, 2004 letter, we requested that you move section 1.1.16 of your original proposed work plan to section 1.2. In attachment two to your January 27, 2004 letter, this was accomplished in the revised work plan at section 1.2.15 but the sentence was not inserted in its entirety. Please add the words "as appropriate" to the end of the first sentence in section 1.2.15 of the revised work plan.

Please submit a final copy of Nye County's work plan with appropriate changes. If you have any questions regarding this letter, you may contact Wayne B. Miller at (702) 794-1362.

Sincerely,

A handwritten signature in black ink, appearing to read "Birdie V. Hamilton-Ray".

Birdie V. Hamilton-Ray
Contracting Officer

FEB-02-2004 03:44PM FROM-OIA

702 794 5431

T-960 P.003/003 F-239

Mr. Les W. Bradshaw

-2-

FEB 02 2004

cc:

Margaret Chu, DOE/HQ (RW-1), FORS
CMS Coordinator, BSC, Las Vegas, NV
A. B. Benson, DOE/ORD (RW-2W),
Las Vegas, NV
R. E. Lupton, DOE/ORD (RW-2W),
Las Vegas, NV
W. B. Miller, DOE/ORD (RW-31W),
Las Vegas, NV
S. L. Rives, DOE/ORD (RW-2W),
Las Vegas, NV
H. C. White, Jr., DOE/ORD (RW-2W),
Las Vegas, NV

EXHIBIT 4



Nye County
Department of Natural Resources & Federal Facilities
1210 E. Basin Rd. Ste. #6 • Pahrump, Nevada 89060
(775) 727-7727 • Fax (775) 727-7919

04-063-LB (L)

February 3, 2004

Wayne B. Miller, Contracting Officer
U.S. Department of Energy (DOE)
Office of Repository Development
1551 Hillshire Drive
Las Vegas, NV 89134

Nye County's Revised Proposed Fiscal Year (FY) 2004 Work Plan

Dear Mr. Miller:

Attached please find our February 3, 2004 version of our FY04 Work Plan that includes the additional changes cited in your letter to Les Bradshaw dated February 2, 2004.

Please acknowledge receipt of our finalized work plan and provide specific notification of approval at your earliest convenience. We look forward to your expeditious disbursement of Nye County's FY04 Oversight Funds.

Respectfully,
NYE COUNTY, NEVADA

for Les W. Bradshaw
Department Manager

LB/js

Attachment: as stated

cc: W. John Arthur III, DOE
Allen B. Benson, DOE
J. Russell Dyer, DOE
Robert E. Lupton, DOE

EXHIBIT 5



Department of Energy
Office of Civilian Radioactive Waste Management
Office of Repository Development
1551 Hillshire Drive
Las Vegas, NV 89134-6321

QA: N/A

FEB 6 2004

Mr. Les Bradshaw, Manager
Nye County Department of Natural Resources
and Federal Facilities
1210 East Basin Road, Suite 6
Pahrump, NV 89060

Subject: Nye County's Proposed Fiscal Year (FY) 2004 Work Plan

Dear Mr. Bradshaw:

Nye County's proposed work plan for oversight of the Yucca Mountain Project for FY 2004, as submitted on February 3, 2004, is approved.

As provided in my January 26, 2004 letter, the budget in Section 3 of the work plan is noted. The final amounts to be incorporated in it remain subject to distribution of FY 2004 oversight funds to the remaining balance to be recovered as the result of U.S. Department of Energy/Inspector General Audit Report (DOE/IG-0600) of May 2003 and to final resolution of the pending issue regarding use of interest earned on oversight funds by the Affected Units of Government.

If you have any questions regarding this letter, please contact me at (702) 794-1362.

Sincerely,

A handwritten signature in cursive script that reads "Wayne B. Miller".

Wayne B. Miller
Contracting Officer

cc:

Margaret Chu, DOE/HQ (RW-1), FORS
CMS Coordinator, BSC, Las Vegas, NV
A. B. Benson, DOE/ORD (RW-2W),
Las Vegas, NV
R. E. Lupton, DOE/ORD (RW-2W),
Las Vegas, NV
W. B. Miller, DOE/ORD (RW-31W),
Las Vegas, NV
S. L. Rives, DOE/ORD (RW-2W),
Las Vegas, NV
H. C. White, Jr., DOE/ORD (RW-2W),
Las Vegas, NV

EXHIBIT 6

NRC proceedings. The NRC contemplates that the licensing proceedings will involve few hardcopies of documents; all the documentary evidence for the licensing proceeding will be drawn from the LSN and used in electronic form. DOE represented to the NRC in February of this year that it will be attempting to certify to the LSN between three and four *million* documents totaling between 27.5 and 36.5 *million* pages. When DOE makes this certification in June, Nevada must be prepared to review the totality of DOE's submission in order to participate in NRC's review of the completeness of DOE's certification.

3. At the same time, Nevada must do the necessary preparation to submit its own documents to the LSN and to certify the completeness of its submission to the NRC by September. In essence, this means that by September Nevada will have had to marshal all the Nevada documentary evidence on which it might rely to challenge the premises of DOE's application and to advance its affirmative case, and then convert that material—smaller than DOE's likely submission, but still involving thousands of pages of documents—into the electronic format mandated for the LSN. If Nevada fails to certify that this submission is complete, that is, that it covers the universe of Nevada documents to be used in the licensing proceeding, it is my understanding that Nevada may be forever foreclosed from participating as a party in the those proceedings. By this summer, then, Nevada must make at least a preliminary evaluation of the likely premises of DOE's as-yet-unfiled application, the flaws in DOE's analyses, and the premises of Nevada's own affirmative case.

4. When DOE files its application in December, NRC will review that submission for completeness. Even though the application will primarily include summaries of scientific data and analyses, it will still be over 10,000 pages long. The details will be in the scientific references, drawn from the tens of millions of pages of DOE and other documents in the LSN.

The heart of DOE's application will be the so-called total systems performance assessment ("TSPA") of how the repository will perform. The TSPA involves over 5,000 parameters and 7,000 mathematical models. Existing versions available to Nevada are so complicated and the uncertainties in parameters and models are so large that each full calculation (a computer run or "simulation") must be run some 300 times in order for the statistical significance of the results to be evaluated.

5. Once the completeness determination is made, NRC will formally docket DOE's application and issue the notice of hearing required by the NRC's rules. I understand Nevada will then have only *30 days* to complete a detailed review of the entire application, and all of the supporting materials, and provide NRC with a specific statement of *every issue* it wishes to raise in the licensing hearing (contentions), together with specification of *every source* it intends to rely upon in sufficient detail to convince NRC there is a genuine issue for a hearing. I understand if a contention fails to meet NRC's extremely stringent pleading requirements, there it will be no discovery, evidentiary hearing, or adjudicatory decision on the issue. Moreover, it is my further understanding NRC will not admit a contention conditionally, subject to discovery to provide all of the necessary technical support. Thus, NRC's rules impose perhaps the greatest litigation burden on Nevada in the initial stage of the proceeding, before a single bit of discovery is conducted and before a single witness is identified.

6. It will be impossible for Nevada to meet NRC's initial pleading requirements (and complete the prerequisite detailed review of DOE's application and scientific references) in 30 days after the notice of hearing (or, even assuming NRC takes 90 days to do its completeness review, 120 days after DOE tenders its allegedly-complete application to NRC). Therefore, Nevada must now continue to fund its scientific experts, retain new ones, begin its review of the

LSN material and what its experts believe will be included in DOE's application, as well as initiate the process of drafting "contentions" that will satisfy NRC's rules.

7. Nevada plans contentions in the areas of climatology, infiltration, waste package corrosion, radionuclide transport, hydrology, geology, geophysics, geochemistry, seismicity, volcanism, biosphere uptake, transportation impacts, quality assurance, expert elicitation, probabilistic risk assessment, uncertainty analysis, and radionuclide sorption, to name a few. Nevada has engaged 25 renowned experts from around the world to assist with the essential studies from which these contentions will be drawn, and it needs to be able to pay them for their work. Their work will be of vital importance to the scientists and engineers at the NRC in their evaluation of DOE's application and representations that this repository will be safe. This work, which is essential to preserve and protect Nevada's right to participate in the NRC licensing hearing, will cost substantially in excess of the limited funds (\$1 million) DOE has made available this year. The budget proposed by Nevada (\$5 million) would barely be adequate to support this work now, and substantially more funds than what will be required annually for at least four years thereafter.

8. Nevada's proposed budget includes the following, all of which are identified as key technical safety issues by the NRC:

(a) \$2,000,000 for scientific evaluation of DOE's proposed engineered barrier system, including scientific studies of corrosion of the Alloy-22 high-level radioactive waste package and Titanium-7 drip shield which DOE currently claim will not corrode and fail for ten-thousand years despite the presence of corrosion agents in the waste emplacement tunnels.

(b) \$700,000 for scientific evaluations of the probability and effects of volcanic eruptions in Yucca Mountain.

(c) \$300,000 for general scientific review of other key technical issues including especially investigations of Yucca Mountain geology.

(d) \$1,000,000 for independent scientific evaluation of DOE's TSPA, including especially levels of uncertainty in the DOE mathematical models of repository performance, the abstractions of those models used in the TSPA, and the thousands of different parameters that serve as inputs to the calculations. Currently, TSPA calculations produce results that can differ by as much as a factor of one million, depending on the choice of models and parameters.

(e) \$1,000,000 for licensing preparation, including preparation for LSN certification and drafting of contentions for submission to the NRC.

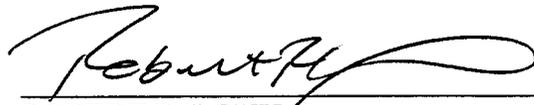
9. If Nevada were forced to assume that no more than \$1 million would be available this year, its ongoing scientific research on issues (a) through (d) above would need to be stopped or cut to the bone. For example, scientific studies of the corrosion implications of the interaction among the Alloy-22 waste package, the Titanium-7 drip shield, and the steel mesh tunnel lining (used to prevent rock-fall) would need to be abandoned. Also, Nevada would be unable to conduct its own drilling into aeromagnetic anomalies in the vicinity of Yucca Mountain. This drilling enables researchers to estimate the probability of a volcanic eruption. Drilling into anomalies not selected by DOE for its own drilling program is important because the estimated probability of an eruption may depend on which anomalies are selected for drilling. Another example of work that would need to be abandoned is drilling into to ground south of the repository to obtain data needed to model flow of radioactive waste from the unsaturated to the

saturated zone. Data about flow in the alluvium in the saturated zone would be especially useful because the data obtained by DOE so far is very limited.

10. If Nevada were forced to assume that no more than \$1 million would be available this year, Nevada would need to focus almost exclusively on item (e) in paragraph 8 above to avoid being shut out of the NRC proceeding at its very outset for failure to give NRC an adequate LSN certification or file adequately supported contentions. This would be a tragedy, for scientific data from sources other than those sponsored by DOE is already scarce. Moreover, Nevada would also be forced to limit severely its pre-application review of DOE documents, with the certain result that important safety issues will never be taken up in the hearing because Nevada was unable to meet NRC's stringent pleading requirements.

11. The \$5 Million requested by Nevada this year is only about one per-cent of DOE's annual Yucca Mountain's budget. Since 1983, when DOE funding of Nevada began, Nevada has received approximately \$78 Million. Thus the \$5 Million currently requested is not out of proportion to historical funding levels.

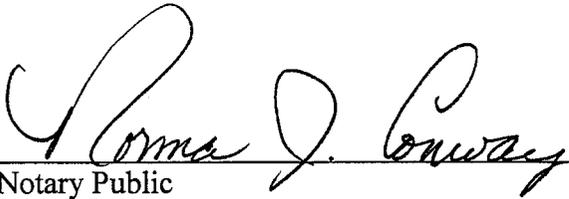
FURTHER AFFIANT SAYETH NOT.



ROBERT R. LOUX

STATE OF NEVADA §
 §
COUNTY OF Carson City §

SUBSCRIBED AND SWORN to before me, a Notary Public for the State of Nevada,
appeared ROBERT R. LOUX and set his hand to the above document on this 19th day of
March 2004.



Notary Public

My Commission Expires:

September 2005

EXHIBIT 7



Nye County

Department of Natural Resources & Federal Facilities

1210 E. Basin Rd. Ste. #6 • Pahrump, Nevada 89060
(775) 727-7727 • Fax (775) 727-7919

04-004-LB (L)

January 8, 2004

Dr. Margaret S. Y. Chu
Director, Office of Civilian Radioactive Waste Management
RW-1/FORS
U. S. Department of Energy
1000 Independence Avenue, SW
Washington, DC 20585

Changing the U. S. Department of Energy's Office of Civilian Radioactive Waste Management (DOE/OCRWM)/Nye County Funding Paradigm

Dear Dr. Chu:

This letter is a request for additional FY04 funding and proposes changes to existing funding mechanisms for FY05 and beyond. The historical funding mechanisms are no longer adequate and need to be altered to facilitate our mutual interests and responsibilities. Nye County needs resources to deal with; (1) oversight of the repository program (\$1,000,000 annually); (2) impact mitigation as it relates to successful implementation of the repository program (\$2,250,000 annually); and (3) existing and future cooperative agreements (CA) (funded as agreed to meet CA objectives).

We are encouraged that on numerous occasions since taking office you have assured the Nye County Board of Commissioners and staff of your commitment to us as the site county, and that you would seek our involvement in implementation of the repository process. Our Nye County resolution of August 2002 commits us to "energetic and constructive" involvement in that process. This commitment to cooperation is intended to serve DOE and Nye County interests in making the program successful for the nation, not just a contentious dump in the desert. Our Community Protection Plan, included in DOE's Site Characterization Recommendation to the President, is our strategic plan for oversight and impact mitigation (implementation assistance).

Nye County has been engaged as one of the Affected Units of Local Government (AULG) since authorized by Section 116(c) of the Nuclear Waste Policy Act (NWPA). Section 117(d) authorizes the site county an on-site representative, and we have had such a representative since 1993. Under various arrangements Nye County and DOE have also engaged in several cooperative agreements, to our mutual benefit. Funds for Section 116(c) oversight activities have historically been a line item in appropriations language. While Section 117(d) authorizes, indeed even requires, the Secretary to programmatically fund an on-site representative from the Waste Fund, the on-site representative program has historically been funded under, and included as a Section 116(c) activity. Cooperative agreements with the County have been sourced from program funds designated by OCRWM.

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Page 2

Margaret Chu

January 8, 2004

Now that site designation has occurred, Nye County is more than an AULG; it is the site county. Nye County believes it has two major responsibilities to its citizens. First, it and the State have a NWPA authorized oversight responsibility to ensure the health, safety and economic well being of its citizens and the environment. Secondly, Nye County specifically has a responsibility to help make the repository program a true long-term success if the first objective is to be realized. Funding for these activities in FY04 are inadequate and threaten the efficacy of Nye County's involvement as the site county in the repository program.

It is Nye County's intent to have the Nye County Department of Natural Resources and Federal Facilities (NR&FF) perform its NWPA authorized "On-Site Representative" functions and make that transition between now and the start of FY05. NR&FF performs several functions for Nye County, one of which is the Nuclear Waste Repository Project Office (NWRPO). The NWRPO activities associated with the Yucca Mountain project are conducted and accounted for separately and distinctly from other, non-Yucca Mountain related activities. This will continue to be the case as the NR&FF transitions into full "On-Site Representative" status, and only NWRPO, Yucca Mountain related activities will be funded under the aegis of the On-Site Representative as authorized by Section 117(d) of the NWPA. Implementation of the recommendations below will facilitate that effort and tie Nye County's Independent Oversight, Impact Mitigation and Implementation Assistance programs to NWPA guidance and the federal planning, programming and budgeting system (PPBS).

Accordingly, we offer the following recommendations:

1. Nye County needs its \$1,340,000 share of FY04 oversight funds (NWPA Section 116(c)) as soon as possible.
2. OCRWM provide separate FY04 program funds over and above the Section 116(c) appropriation above in the amount of \$800,000 for the Nye County Department of Natural Resources and Federal Facilities to transition as its "On-Site Representative", as authorized by Section 117(d) of the NWPA.
3. OCRWM budget \$1,000,000 as a separate Section 116(c) oversight program element for Nye County's NWPA authorized independent oversight of the program for FY05 and beyond.
4. OCRWM budget separate FY05 program funds, over and above the Section 116(c) appropriation, in the amount of \$2,250,000 for the Nye County Department of Natural Resources and Federal Facilities as its "On-Site Representative", as authorized by Section 117(d) of the NWPA.
5. OCRWM and Nye County establish and fund an Umbrella Cooperative Agreement with a fiscal ceiling and duration that incorporates the existing Cooperative Agreements for specific activities (transportation, EWDP, ISIP) beyond oversight and on-site representation, and serves to accomplish specific tasks as part of the time phased integration of site development in line with U.S. Department of Energy's Office of Repository Development's scope, schedule and budget.

The transition from site characterization to site designation, licensing, construction and operation warrants changes to how OCRWM functions with the site county. It is our belief that the NWPA provides OCRWM sufficient authority for implementation of these recommendations. These recommendations can be a constructive step forward in our evolving relationship as it relates to implementation of the repository program. They could also provide an important impetus for policy changes OCRWM has yet to make as a result of site designation.

Page 3

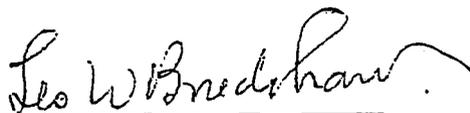
Margaret Chu

January 8, 2004

We look forward to your prompt response, and to working with you to develop mutually beneficial solutions for the successful implementation of the repository program.

Sincerely,

NYE COUNTY, NEVADA



Les W. Bradshaw
Les W. Bradshaw
Department Manager

LB/vt

cc: Theodore J. Garrish, U. S. Department of Energy
W. John Arthur, III, U. S. Department of Energy
J. Russell Dyer, U. S. Department of Energy
Henry E. Neth, Nye County
Joni Eastley, Nye County
Midget Carver, Nye County
Patricia Cox, Nye County
Candice Trummell, Nye County
Michael Maher, Nye County

CERTIFICATE OF SERVICE

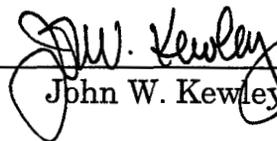
I certify that a true and correct copy of the foregoing document was served this 23rd day of March, 2004 via Federal Express on:

The Hon. Spencer Abraham
Secretary
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

Lee Liberman Otis, Esq.
General Counsel
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585

The Hon. John Ashcroft
Attorney General of the United States
U.S. Department of Justice
Room B-103
950 Pennsylvania Avenue, N.W.
Washington, D.C. 20530-0001

Roscoe C. Howard, Jr., Esq.
U.S. Attorney for the District of Columbia
555 Fourth Street, N.W.
Washington, D.C. 20530


John W. Kewley