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October 14, 2009

Ms. Linda M. Cohn
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Re: Comments on the Notice of Intent to Prepare an Environmental Impact Statement for the Continued Operation of the Department of Energy/National Nuclear Security Administration (DOE/NNSA) Nevada Test Site and Off-Site Locations in the State of Nevada

Dear Ms. Cohn:

Attached are comments submitted in response to DOE/NNSA's Federal Register Notice of July 24, 2009 regarding the proposed site-wide environmental impact statement (EIS) for the Nevada Test Site (NTS) and off-site locations in Nevada. The comments are intended to assist DOE/NNSA in establishing the necessary and appropriate scope for the proposed EIS and highlight areas for evaluation in the National Environmental Policy Act (NEPA) process that are especially germane and timely.

The comments point out that, among other things, the NTS land status issue remains essentially unresolved and potentially problematic for future activities and land uses at the Nevada site. While DOE has apparently concluded consultations with the Department of Interior regarding the status of NTS land, there still has been no resolution regarding how and when the Public Land Orders that withdrew the NTS from public use will be revised to reflect the circumstances and altered land uses at the heart of the original dispute between DOE and the State of Nevada. It will be important for the proposed EIS not only to fully examine all current and potential NTS activities and land uses, but also to provide a basis for moving forward to finally resolve the land status issue in a manner that is mutually acceptable to DOE and the State of Nevada.

It is especially important that the proposed EIS fully evaluate not only all of the past, current and foreseeable activities and uses for NTS and off-site locations, but also the

universe of facilities, projects, programs, and activities that are affected by or that affect NTS and its related off-site locations. This will require a scope for the EIS that provides for the establishment of a full and complete baseline for environmental conditions (including all forms of contamination) that exist at the present time. It will also require an inclusive assessment of all environmental impacts associated with the full range of current and future activities on NTS proper as well as those occurring outside NTS boundaries that are related to NTS activities. Of special significance in this regard would be the effects of the transportation of radioactive or other materials into and out of NTS.

Likewise, the proposed EIS must consider the full range of cumulative impacts associated with past, present and future NTS activities as well as cumulative impacts resulting from the interaction of NTS functions and land uses with activities associated with activities occurring outside NTS, such as those related to the Nellis Range, the proposed Yucca Mountain high-level radioactive waste repository program, Department of Defense activities, off-site and on-site commercial facilities and activities, etc.

Because the range of activities to be covered by the proposed EIS is so broad and the time frames are so extended, DOE/NNSA may want to consider, as we have suggested in the comments, the preparation of a programmatic EIS (PEIS) from which EISs for individual projects, facilities, etc. could be tiered. The use of a PEIS would permit a broadly encompassing evaluation of the universe of environmental conditions and potential impacts, while facilitating more project-specific analyses as new/changed conditions warrant.

Thank you for the opportunity to provide scoping comments on this critical NEPA effort. If you have questions regarding these comments or would like additional information, please contact Marta Adams, Chief Deputy Attorney General, at 775-684-1237.

Sincerely,

A handwritten signature in black ink, appearing to read "Catherine Cortez Masto", written in a cursive style.

CATHERINE CORTEZ MASTO
Attorney General

CCM/MA/lf

**COMMENTS OF THE STATE OF NEVADA
OFFICE OF THE NEVADA ATTORNEY GENERAL
ON THE U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
NOTICE OF INTENT TO PREPARE AN ENVIRONMENTAL IMPACT STATEMENT
FOR THE CONTINUED OPERATION OF THE NEVADA TEST SITE AND
OFF-SITE LOCATIONS IN THE STATE OF NEVADA**

October 16, 2009

Background

The decision by the U.S. Department of Energy National Nuclear Security Administration (DOE/NNSA) to prepare a new site-wide Environmental Impact Statement (EIS) for the Nevada Test Site (NTS) and off-site locations in the State of Nevada is the latest in a long series of activities on the part of the United States Department of Energy (DOE) (and subsequently DOE/NNSA) to conform with various environmental and land-use requirements governing activities at these facilities and to adequately assess and address environmental impacts resulting from the evolving NTS mission and the changing nature of activities ongoing or planned at the site. Although established by Congress for the sole purpose of weapons testing in the 1950s, NTS has undergone a metamorphosis over the years as a result of political decisions (i.e., the nuclear test ban) and changing needs of the DOE weapons complex (i.e., from weapons production to clean up of facilities). In addition, significant changes in federal laws and regulations have occurred since the Public Land Orders that established the NTS were issued.

In 1994, in an effort to clarify the status of NTS and assure that impacts from activities occurring there were being adequately addressed, the Nevada Attorney General filed a lawsuit against DOE seeking to compel DOE to complete a site-wide EIS for NTS that would evaluate the full range of DOE activities occurring at the site. The 1994 lawsuit asserted that DOE lacked the authority to operate a disposal program for off-site generated low-level radioactive waste (LLW) at NTS, given the use restrictions contained in the original Public Land Orders for the site. The State argued that DOE had exceeded its authority concerning the importation of LLW waste from out-of-state, "off-site waste generators." Nevada further argued that waste disposal was never considered a "land-use" activity under the Public Land Orders. The suit also asserted that DOE had never assessed, disclosed, or developed alternatives for the NTS disposal operation, as required per the National Environmental Policy Act (NEPA).

After the State's lawsuit was filed, DOE initiated the development of the first comprehensive Site-Wide EIS for NTS since 1977, which led to the eventual settlement

of the suit in 1997. Among other things, the settlement agreement in *State of Nevada v. O'Leary*, (U.S. District Court, Nevada, CV-S-94-00576) (see also, <http://ndep.nv.gov/boff/suite.htm>) required DOE to initiate a consultation process with the U.S. Department of Interior (DOI) to resolve the land status issues arising from disparities between the original NTS land withdrawals and current and planned activities at the site.

Despite the provisions in the settlement agreement, the land status issue remains a point of contention between the State of Nevada and DOE. While DOE has concluded its consultations with DOI regarding NTS, the Nevada Attorney General was not apprised of those interactions until December 2008. By letter to the Nevada Attorney General dated December 18, 2008, DOE advised this office that its consultations with DOI are concluded. Further, the letter advised the Nevada Attorney General that DOE/NNSA would seek a land relinquishment of 700 acres from the Bureau of Land Management, constituting the NTS Radioactive Waste Management Complex (under Public Land Order 805), which would, when complete, transfer custody and control of these 700 acres to DOE. The December 18, 2008 letter does not resolve the land use issues concerning the entire NTS, which is at the heart of the 1994 lawsuit.

Comments

Over the years, the State of Nevada has provided extensive comments on NTS NEPA activities and documents and other activities that have relevance to DOE/NNSA's current proposal for a new site-wide EIS. To the extent these comments remain relevant and applicable to activities and issues that should be covered by the proposed EIS, the following are hereby incorporated by reference into these comments (the references are hyperlinked to the full document):

- [A Summary of the State of Nevada's Comments on the Draft Environmental Impact Statement \(EIS\) for the Nevada Test Site](http://www.state.nv.us/nucwaste/eis/nts-eis.htm) (May 1996) - <http://www.state.nv.us/nucwaste/eis/nts-eis.htm>
- [State of Nevada Comments -- Final EIS for the Nevada Test Site \(NTS\)](http://www.state.nv.us/nucwaste/eis/nts-fin.htm) (November 1996) - <http://www.state.nv.us/nucwaste/eis/nts-fin.htm>
- [State of Nevada Comments on DOE's Draft Environmental Impact Statement on Stockpile Stewardship and Management for a Modern Pit Facility](http://www.state.nv.us/nucwaste/news2003/pdf/nv030804.pdf) (August 2003) - <http://www.state.nv.us/nucwaste/news2003/pdf/nv030804.pdf>
- [Comments on NNSA/NSO's Notice of Intention to Prepare an Environmental Assessment for a Radiological/Nuclear Countermeasures Test and Evaluation](#)

Complex at the Nevada Test Site (May 2004) -

<http://www.state.nv.us/nucwaste/news2004/pdf/nv040504nts.pdf>

- Comments on NNSA/NSO's Draft EA for Activities Using Biological Simulants and Releases of Chemicals at the Nevada Test Site (May 2004) -
<http://www.state.nv.us/nucwaste/news2004/pdf/nv040505nts.pdf>
- State of Nevada Comments on DOE/NNSA's Preapproval Draft Environmental Assessment (EA) for a Radiological/Nuclear Countermeasures Test and Evaluation Complex at the Nevada Test Site (DOE/EA-1499) (July 2004) -
<http://www.state.nv.us/nucwaste/news2004/pdf/nv040702nnsa.pdf>
- State Comments on the Nevada Test and Training Range Depleted Uranium Target Disposal Draft Environmental Assessment (October 2004) -
<http://www.state.nv.us/nucwaste/news2004/pdf/nv041019du.pdf>
- State of Nevada Comments on DOE's Notice of Intent to Prepare a Supplement to the Stockpile Stewardship and Management Programmatic Environmental Impact Statement – Complex 2030 (Federal Register, Vol. 71, No. 202, October 19, 2006, p. 61731 – 61736) (December 2006) -
<http://www.state.nv.us/nucwaste/news2006/pdf/nv051215wyka.pdf>
- Nevada Comments on DOE/NNSA's Complex Transformation Draft Supplemental Programmatic Impact Statement (April 2008) -
<http://www.state.nv.us/nucwaste/news2008/pdf/nv080408wyka.pdf>

The following comments are intended to assist DOE/NNSA in establishing a scope for the proposed NTS site-wide EIS that adequately bounds all of the activities (past, present and future) at the site and at relevant off-site locations, addresses the full and complete spectrum of impacts attendant to those activities, and provides a path forward for mitigating negative impacts and finally resolving the land status issue.

Land Use

As noted above, the pivotal issue of what land uses are permitted at NTS, given the stipulations in the original land withdrawals and weapons testing mission of the site, remains largely unresolved. While NTS has acquired new and varied missions and activities over the years, nothing has been done to formally revise the Public Land Orders that withdrew NTS from public use in the 1950s and 1960s. The proposed site-wide EIS must address this issue by setting forth plans and concrete actions DOE will undertake to assure that activities ongoing or proposed at NTS will be lawful and

permitted under existing federal law. Such actions should include a plan for appropriate amendments of the land withdrawal authorization. The proposed EIS should contain DOE's consideration of and concrete proposals for how it intends to reconcile new NTS land use purposes beyond the original "weapons testing" purpose.

Consideration of a Programmatic EIS

In Nevada's 2005 scoping comments for the last NTS EIS, it was suggested that a programmatic EIS might be a more appropriate and effective vehicle for addressing the varied nature of NTS activities. Those comments stated, "[g]iven the complexity of issues and diversity of waste types that need to be addressed in the planned NEPA process, the development of a "Programmatic Environmental Impact Statement (PEIS)" is warranted. DOE should consider developing a PEIS to reach decisions about major issues such as single versus multiple disposal sites; selections of disposal site configuration, life cycle cost estimates for long-term surveillance and maintenance of disposal sites. By developing a PEIS, DOE could address these and other critical decisions ... and subsequently "tier" EISs for specific program elements from the PEIS (as "tiering" is defined in the Council of Environmental Quality (CEQ) Regulations 40CFR 1508.28)."

Given the range of decisions intended to be supported by the proposed EIS, including the many current statutory and regulatory uncertainties, it may be more appropriate for the proposed EIS to be a programmatic one, with resulting preferred alternatives being submitted for further NEPA review on a site/project-specific basis.

Alternatives

No Action Alternative: The NOI states that the No Action Alternative will include "actions analyzed in eight environmental assessments and their associated Findings of No Significant Impacts, as well as actions categorically excluded from the need for preparation of either an EA or EIS." Nevada believes this approach is inconsistent with the definition of the No Action Alternative as intended under NEPA. The only actions/activities that should be considered within the No Action Alternative are actions/activities/facilities that are currently ongoing or in existence at NTS. Activities planned for some future date - even if they have been subject to some form of environmental review, but have not been implemented and are not currently ongoing, should not be considered as part of a No Action Alternative.

Action Alternatives: The Expanded Operations Alternative and the Renewable Energy Operations Alternative described in the "Alternatives for the SWEIS" section of the Notice should be combined into a single Expanded Operations Alternative. New facilities/activities that are reasonably foreseeable, whether for nonproliferation, counter-terrorism or other related purposes or for renewable energy purposes, constitute

expanded use and should be evaluated together in a single action alternative. Such an approach will allow for direct evaluation and comparison of impacts and simplify both the assessment and review processes.

Perpetual Withdrawal Alternative: The proposed site-wide EIS should consider an alternative that contemplates perpetual withdrawal of those areas of NTS where there is soils and groundwater contamination from past atmospheric and below-ground nuclear testing and for which DOE has no path forward for clean-up and remediation (see discussion on “Contamination from Past Activities” below). The EIS should evaluate a potential future scenario in which DOE must maintain sole control of vast areas of NTS that must remain isolated from other uses in perpetuity. This alternative would require DOE to seek Congressional legislation to establish a perpetual withdrawal of land, and it would have significant implications in terms of long-term stewardship, costs, etc.

Region of Influence

In evaluating impacts associated with past, current and future activities at NTS, the proposed EIS must encompass a region of influence expansive enough to assure that the full range and geographic context of all impacts are taken into account. This requires expanding the scope of the EIS to include not only the physical areas that encompass NTS and specific off-site locations (i.e., the Central Nevada Test Area (CNTA) and Project Shoal), but also address impacts directly and indirectly related to NTS activities occurring beyond NTS borders. As such, the region of influence for the proposed EIS should include impacts associated with all of the categories described under the “Preliminary Identification of Environmental Issues” section of the NOI (Federal Register Vol. 74, No. 141, page 36693) that occur or could potentially occur outside the boundaries of the NTS. Impacts associated with the transportation of radioactive waste and other materials to and from NTS; groundwater contamination from radionuclides or other materials; airborne pollutants; and the full range of other environmental impacts should be evaluated in relation to their impacts on people and the environment in communities and areas surrounding the site and along transportation corridors leading to and from NTS.

Transportation

As noted above, a significant source of occurring and potential impacts from NTS activities is the transportation of radioactive wastes, radioactive materials, hazardous waste and materials, and other types of materials into and out of NTS. Significant numbers of low-level waste (LLW) and mixed hazardous/low-level radioactive (MLLW) waste shipments are made to NTS each year from DOE facilities around the country. In addition, NNSA imports shipments of “special nuclear materials” (SNM), including plutonium and other long-lived nuclear materials derived from off-site weapons activities, for storage and other purposes at NTS. A small amount of transuranic waste

continues to be stored at NTS in anticipation of transfer to either the Idaho National Laboratory or the Waste Isolation Pilot Plant repository in New Mexico. DOE's plans call for continued and potentially expanded LLW and MLLW disposal at NTS, while NTS is being considered as a disposal site for Greater-Than-Class-C (GTCC) wastes from throughout the DOE weapons complex. The proposed EIS must comprehensively evaluate impacts associated with the transportation of such waste and materials on communities and the environment along shipping routes to and from NTS, both within Nevada and in corridor states transited by such waste and other materials. Such analyses should include route-specific risk assessments and assessments of impacts from both routine (non-accident) and accident shipment scenarios, including worst-case accidents. The EIS should also evaluate risks and impacts relating to acts of terrorism and sabotage against NTS-related radioactive materials shipments. If intermodal transportation of LLW, MLLW or other nuclear/radioactive materials is contemplated, the EIS should contain an analysis of how such transport would be done and a comprehensive evaluation of risks and impacts, regardless of where the intermodal transfer(s) would take place.

No waste shipments through Las Vegas: Over the past 10 years, the State of Nevada has worked closely with DOE to minimize risks involved with the transport of LLW and MLLW to NTS. A cornerstone of State/DOE cooperation is the agreement by DOE to route all LLW and MLLW shipments so as to avoid the Las Vegas metropolitan area. The final site-wide EIS should contain assurances, perhaps in the context of mitigation planning, that shipments of LLW and MLLW from off-site generators will continue to be prohibited from transiting through the Las Vegas metropolitan area.

Contamination from Past Activities

Contaminated soils and groundwater at NTS have resulted from years of nuclear testing and from various research and development projects and radioactive and mixed waste disposal programs. The types of activities that led to the existing contamination could be categorized as follows:

- Atmospheric Nuclear Testing
- Underground Nuclear Testing
- Safety Tests and Cratering Events
- Nuclear Rocket Development and other R&D Programs
- Disposal of Radioactive Waste and MLLW (in shallow land fills, subsidence craters, and in greater confinement disposal shafts)

Atmospheric Testing: Prior to the 1963 Limited Test Ban Treaty, one hundred atmospheric nuclear tests were conducted at NTS. The tests were detonated at ground level, from towers, balloons, and by airdrops. According to DOE, the greatest disturbance typically occurred when an air-dropped weapon penetrated the ground

surface to a shallow depth before detonation. Such a test -- with an estimated yield of 100 kilotons and up -- would result in a crater about 120 feet deep and 720 feet in diameter. Because NTS was used for both atmospheric and underground nuclear testing, DOE has stated that it is not possible to fully define the level of residual contamination that remains from the atmospheric testing program. Nevertheless, the number of curies generated from above-ground testing was estimated at about 6 billion. While most of the fission products and other short-lived nuclides released from above-ground testing were dispersed into the atmosphere and have arguably decayed away, DOE acknowledges that longer-lived radionuclides remain in the soil and physical structures at NTS. The primary radioactive isotopes that remain from above-ground testing include americium, plutonium, cobalt, cesium, strontium, and europium. This has resulted in significant soils contamination for which DOE has not provided a path forward in terms of remediation and mitigation.

Underground Testing: Beginning in June 1957 and ending in September 1992, DOE (and its predecessor agencies) conducted over 800 underground nuclear tests at NTS. The tests had yields ranging from zero to 1,000 kilotons. Underground testing left an estimated source term of 300 million curies in the environmental media (soil and groundwater). Because an estimated 38 percent of the tests were conducted under or within 75 meters (246 ft) of the water table, the groundwater beneath the site now contains an estimated 120 million curies of radioactivity in areas which require further investigation.

There were four basic types of underground tests: shallow, borehole, deep vertical, and tunnel tests. Collectively, these tests caused significant disruption to the geologic media. They resulted in hundreds of subsidence craters and caused contamination of the subsurface geologic media, surface soils, and groundwater over an estimated 300 square mile area. In terms of absolute volume, Nevada officials over the years have contended that NTS contains more contaminated media than any other site in the DOE weapons complex.

Nuclear Safety Tests and Cratering Events: DOE conducted numerous "safety" experiments at NTS and, while these experiments did not produce nuclear explosions, they did create significant surface contamination. These tests were conducted to determine the behavior of nuclear weapons in conventional explosive accident scenarios during handling, storage, and transport operations. Safety tests were also conducted to determine the size and distribution of plutonium particles that might result from fires and conventional explosive accidents involving nuclear weapons. Some of the experiments were also performed to determine the biological uptake of plutonium by various species of animals and plants.

The "safety" experiments were conducted at five locations on the Nellis Air Force Range and at two locations on NTS. According to DOE, the depth of contamination at these

soil sites may vary, but probably is one foot or less at any given site. DOE has estimated that these safety experiments contaminated about 2,885 acres with plutonium at levels in excess of 40 pico curies per gram. While some of these sites have been "cleaned up," residual contamination remains.

In addition to safety experiments, DOE conducted nine cratering events as part of the "Plowshare" program. These events used nuclear devices to excavate large volumes of earth. The materials from these nuclear detonations were literally expelled to the surface. In terms of cumulative effects, the contamination from above-ground testing, along with the safety shots and cratering events, left an estimated 27,000 acres (42 square miles) of surface soils contaminated at levels in excess of 40 pico curies per gram. The primary isotopes of concern are plutonium, uranium, and americium with lesser amounts of cesium, strontium, and europium.

Nuclear Rocket Development: In the mid-1950s, the federal government initiated a nuclear rocket testing program at NTS. Test cells, roads, and assembly facilities were constructed at NTS Area 25, now the site of the Yucca Mountain project. Surface soils at these facilities were contaminated with radionuclides released during engine tests, and the buildings were contaminated during assembly and disassembly of the rocket motors. Some of the contaminated equipment and other materials were disposed of in nearby landfills including unknown amounts of processed reactor fuel. Leach fields in the area were also used for disposal of liquid wastes.

Radioactive Waste Disposal: NTS currently functions as a major disposal facility for both on-site and off-sited generated defense low-level waste and MLLW. Two active waste management sites are located on NTS: the Area 5 and Area 3 sites. The Area 5 site occupies over 1 square mile and is located in Frenchman Flat. The Area 3 site occupies about 125 acres and is located 23 miles north of Mercury in Yucca Flat. Established in 1961, the Area 5 disposal site is a traditional "engineered" shallow land fill disposal facility. It is used for disposal of off-site and on-site-generated low-level waste and MLLW, as well as for storage of transuranic waste (TRU waste). Since the late 1980s, NTS ceased accepting TRU waste, but off-site MLLW was permitted for disposal by the State of Nevada, Division of Environmental Protection, in 2007. The Area 3 disposal site was used for bulk and packaged low-level waste. Now closed, the site is comprised of four subsidence craters with areas between the craters excavated to make two oval-shaped landfill units. Conventional landfill methods were used to dispose of waste in the craters.

While disposal of low-level waste generated from soil cleanup activities on NTS and the Nellis Range is an ongoing activity, over 90 percent of waste disposed of at NTS is shipped to the site by off-site waste generators. In FY 2008, there were 1,320 shipments of off-site generated LLW and MLLW into NTS.

Industrial Sites: In addition to contamination caused by the detonation of nuclear devices and waste disposal operations, a significant amount of contamination in the form of muck piles, ponds, sumps, injection wells, inactive tanks, leach fields, waste sites, etc. are present on NTS. These sites remain as by-products of nuclear testing, various research and development programs, and related support activities. These chemical and radioactive contaminated areas, some of which have been remediated, are referred to as industrial sites.

The proposed site-wide EIS must contain a comprehensive analysis of contamination from all activities that have occurred and are ongoing at NTS. Such analysis should comprise a full and comprehensive baseline of environmental contamination at and around the site, including NTS off-site locations. Moreover, this analysis must assess what has been "cleaned up" since the inception of DOE's Environmental Management Program (EM) and what remains to be assessed and remediated for industrial sites, contaminated soils and groundwater under the EM program at NTS and all the off-site locations for the foreseeable future.

Groundwater Contamination and Off-Site Migration

As noted previously, the years of above- and below-ground nuclear testing has resulted in a legacy of groundwater contamination beneath NTS. The full extent of such contamination is only partially understood, and the quantity and rapidity of migration of radionuclides towards NTS boundaries continues to be a source of disagreement and uncertainty. The proposed EIS must contain an extensive analysis of groundwater contamination within NTS and determine to what extent and where contamination is or could be migrating off-site. The EIS must identify the timeframes and likely locations for off-site migration of this contamination and identify the specific prevention and mitigation measures DOE will put in place to protect people, communities and the environment.

Future Waste Disposal Activities

The proposed EIS must contain a comprehensive and thorough evaluation of all current and potential waste disposal activities at NTS, including LLW, MLLW, transuranic waste, GTCC waste, depleted uranium, and any other existing or foreseeable waste stream. The EIS should identify waste volumes by generator/origin location, where such waste would be disposed of, the facilities required (existing as well as new), the transportation requirements for moving waste from generator locations to NTS, the time periods associated with disposal of various waste streams, the interrelationships of waste disposal activities, and the cumulative impacts associated with all of the current and future NTS on-site and off-site waste disposal activities.

The site-wide NTS EIS should address DOE's proposal for taking LLW from commercial entities, subsequently declaring them to be DOE wastes, and disposing of them at the

NTS. At the time of the last NTS EIS Record of Decision (ROD), only defense wastes were eligible to be disposed of at NTS. While the Nevada Division of Environmental Protection has been closely involved with waste acceptance at NTS in general and with this issue in particular, the proposed EIS, nevertheless, must fully discuss plans to accept new LLW streams, including any that may be of commercial origin, and assess their programmatic, environmental, and legal ramifications.

State Oversight/Regulation of Radioactive Waste Disposal Activities

As a result of the evolving and increasing levels of waste disposal activities at NTS, the State of Nevada and DOE developed a multi-faceted approach for assuring state involvement in certain aspects of NTS LLW and MLLW activities. The Nevada Division of Environmental Protection currently regulates the disposal of MLLW at NTS under authority delegated to the State by the U.S. Environmental Protection Agency (EPA). The Agreement-In-Principle (AIP) negotiated between Nevada and DOE specifies roles for various state agencies in overseeing and participating in various activities at NTS. In scoping the legal/administrative framework for present and future activities at NTS, it is important for the proposed EIS to acknowledge Nevada's important role in overseeing aspects of NTS activities that are of special concern to the State and the importance of the AIP framework for cooperative efforts. In addition, the EIS should evaluate the potential for more formal state regulatory oversight of LLW activities, such as the application of the State's NRC-delegated authority to LLW disposal operations at NTS.

The Relinquishment Issue

As identified above, DOE has proposed a land relinquishment process for 700 acres comprising the Radioactive Waste Management Complex. The site-wide EIS should address the land relinquishment and all incident activities contemplated for this acreage, including closure of Pit 3 and new state-imposed permitting requirements under the Resource Conservation and Recovery Act.

Yucca Mountain

While the proposed Yucca Mountain repository program appears moribund, DOE's Office of Civilian Radioactive Waste Management continues to pursue a license for the facility before the U.S. Nuclear Regulatory Commission. As long as the Yucca Mountain project continues in the licensing process and remains an active DOE program, the proposed NTS EIS must fully evaluate the relationship between the potential repository and NTS activities. The Yucca Mountain Final EIS evaluated impacts associated with the proposed repository program, but it did not adequately assess how that program would affect future NTS activities or how NTS will impact Yucca Mountain activities. The proposed NTS EIS must evaluate environmental,

socioeconomic, transportation, radiological, and other impacts in direct relation to how these affect or are affected by the Yucca Mountain project.

Since LLW and MLLW disposal operations at NTS would be expected to be ongoing for an indefinite amount of time, the proposed EIS should look at any potential cumulative impacts with respect to the DOE proposed Yucca Mountain program, both in terms of on-site activities and in terms of the transportation of spent nuclear fuel (SNF) and high-level waste (HLW) to such a facility.

If Yucca Mountain were to be constructed and operated as a high-level waste repository, there would be significant environmental, socioeconomic and transportation impacts occurring in combination with those attendant to NTS operations and facilities. The cumulative effects of such impacts could be synergistic and result in far greater negative consequences than either program would alone. The proposed NTS EIS must be of adequate scope to identify, assess, and address the combined effects of these two facilities and related associated activities.

Evaluation of All Current and Potential Future Activities

The list of current and potential future uses for NTS is extensive. It includes maintaining readiness for future weapons testing; waste disposal; special nuclear materials (SNM) storage and related activities; weapons-simulation experiments and testing; various types of training for hazardous materials, terrorism/sabotage, homeland security; solar and other energy production activities and other matters; non-nuclear explosive testing; private industrial companies; and numerous other possible uses. The proposed EIS should contain descriptions of all current and potential future activities at NTS and fully evaluate the impacts of those activities both individually and collectively.

Cumulative Impacts

The analysis of cumulative impacts in the proposed EIS must include a comprehensive evaluation of the combined effects/impacts of all activities, programs, projects, etc. currently ongoing at NTS or reasonably foreseeable in the future. The analysis should also include the assessment of impacts from past NTS activities and an examination of how those interact with impacts from current and future activities.

The assessment of cumulative impacts must include not only NTS activities, but activities occurring at other facilities/sites, such as the Nellis Range, Creech Air Force Base, Yucca Mountain, and any other facility, program, project, etc. that interacts with NTS functions programmatically, geographically, temporally, or otherwise.

Shipments of LLW, MLLW, SNM, and other radioactive and hazardous materials from various NTS projects/activities should be examined in relation to each other and their

risks and impacts assessed in a cumulative fashion. Likewise, waste and other shipments related to NTS activities should be evaluated in terms of other potential shipping campaigns, such as potential SNF and HLW shipments associated with the proposed Yucca Mountain project. Should the Yucca project go forward, repository shipments would be occurring at the same time and potentially along the same highways and rail lines as NTS radioactive and hazardous materials shipments.

At NTS, substantial surface and subsurface contamination left over from weapons testing activities already exists. There is continuing concern about the adequacy of DOE's existing ground water monitoring program at NTS and the ability of DOE to accurately characterize the extent of radiological contamination in the groundwater and the direction and rate of migration. Cumulative impacts to groundwater from past activities in combination with potential additional contamination from current and future NTS activities should be thoroughly assessed in the proposed EIS.

Relationship of Current and Future Activities to Possible Future Weapons Testing Mission

Many currently ongoing and future activities at NTS may be inconsistent with the original weapons testing, research and development mission of the NTS as authorized in the existing Public Land Orders that withdrew land for the site. The proposed EIS should assess each proposed NTS activity in terms of its consistency with the land withdrawal status of the NTS. If activities are assessed to be incompatible or potentially in conflict with the weapons testing mission, the EIS should describe how such problems would be reconciled.

Assessment of Seismic Risks at NTS

NTS is located in a region identified by the U.S. Geological Survey as an area of major seismic activity. The proposed site-wide EIS should contain an updated assessment of earthquake and seismic risks that acknowledges the fact that earthquakes of 7.0 or greater magnitude are possible in this area. The implications of such an event for existing as well as any future facilities and activities (including materials handling, storage, transportation, etc.) should be addressed in the proposed EIS.

Off-Site Locations (Project Shoal, CNTA, and TTR)

While the NOI states remediation efforts for the off-site locations of Project Shoal and the Central Nevada Test Area (CNTA) have been completed, the proposed EIS should, nevertheless, contain an assessment of environmental conditions (surface and subsurface) for those sites in order to establish environmental baselines against which any future impacts may be measured. The proposed EIS should evaluate the potential

for any long-term impacts associated with these off-site locations and identify appropriate mitigation measures.

The proposed EIS must address DOE Environmental Management (EM) as well as NNSA activities at NTS and NTS-related sites and locations. Of particular concern is plutonium contamination on the Tonopah Test Range (TTR). Although this is an EM issue/responsibility, the impacted lands have been under NNSA control. In NNSA's Complex Reconfiguration ROD, NNSA stated it was returning all but approximately 1 square mile of the TTR to the Air Force. There was no discussion of the remediation requirements that this decision placed on the EM program. The consequences of this NNSA decision, and any changes in the extent of remediation as a result of that NNSA decision, must be discussed in the proposed NTS site-wide EIS. Unless these areas on the TTR are remediated for unrestricted use, there are legal questions that must be fully addressed as to what federal agency under the Atomic Energy Act (AEA) has responsibility for these sites that remain contaminated with plutonium.

Terrorism/Sabotage Analyses

The proposed EIS should contain a thorough and comprehensive assessment of the risks from terrorism or sabotage against NTS facilities and activities. Such assessment should address risks to activities and facilities at/within NTS as well as NTS-related activities occurring outside NTS boundaries, such as the transport of radioactive and hazardous materials into and out of NTS. The need for an assessment of terrorism risks as part of the NEPA process was affirmed in a 2006 decision by the U.S. Circuit Court of Appeals for the Ninth Circuit in the case *San Luis Obispo Mothers for Peace v. NRC*, 449 F.3d 1016, 1028 (9th Cir.2006). In that case, the Court held that NRC must consider terrorist acts in assessing the environmental impacts of the proposed Independent Spent Fuel Storage Installation (ISFSI) at the Diablo Canyon nuclear power plant in order to comply with NEPA.

Adequate Public Involvement in the NEPA Process

Given the importance and extensive scope of the proposed site-wide EIS, it is imperative that there be adequate opportunities for public comment and participation in the NEPA process. The Notice of Intent to prepare the EIS that was published in the Federal Register indicated that DOE plans a public comment period for the Draft EIS of "at least 60 days." In order for the public and affected stakeholders to adequately review and provide comments on a draft document as extensive and far-reaching as the proposed EIS needs to be, the period for comments on the Draft site-wide EIS should be no less than 180 days. Public hearings should be held in locations throughout Nevada and in other states affected by NTS activities (including, but not limited to, the transportation of radioactive and hazardous materials to and from NTS).

Public hearings should be publicized and noticed widely so as to assure that the public and stakeholders potentially affected by the activities covered in the proposed EIS are aware of the hearings and the opportunities for commenting and participating in the NEPA review process. In addition to adequate public notice, the hearings should be structured so as to meaningfully facilitate public comments – i.e., permitting individuals to make comments for the record in a public forum, not isolated in an intimidating situation with a DOE official in a remote corner of the hearing room.