Nye County
Department of Natural Resources and Federal Facilities
Nuclear Waste Repository Project Office (NWRPO)

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NWRPO UPDATE

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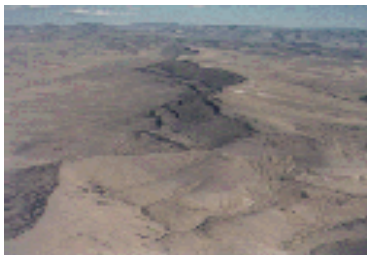
INSIDE THIS

DOE SEEKS NRC CONCURRENCE ON CHANGES TO YUCCA MOUNTAIN SITING GUIDELINES

On May 4th the Department of Energy (DOE) submitted its final draft of new Yucca Mountain Siting Guidelines to the Nuclear Regulatory Commission (NRC) for concurrence. Under the Nuclear Waste Policy Act the NRC must agree before DOE can promulgate guidelines governing the recommendation of Yucca Mountain as a repository.

DOE originally promulgated guidelines governing the recommendation of sites for repositories in 1984, before the congress in 1987 narrowed the nation's search for a repository to Yucca Mountain alone. The guidelines set out, among other things, factors to be considered when choosing among various potential candidate sites. In 1996 Congress directed DOE to amend its siting guidelines in order to reflect changes in the law since they were first promulgated. DOE published a proposal in that year, held public hearings in 1997, and received extensive comments from all interested parties. The 1996 proposed changes, which were strongly criticized by Nye County, the State of Nevada, and others, would have rewritten the guidelines to make them specific to the assumed geologic conditions at Yucca Mountain.



In 1999, DOE republished this new approach to revised guidelines. Once again, public hearings were held, in Las Vegas and Pahrump, and extensive comments were received in writing from state and local governments, the Nuclear Waste Technical Review Board, the NRC, environmental organizations and public groups, and interested members of the public. Nye County testified at the public hearing in Pahrump on February 2, 1999, and provided formal written comments to DOE.

In its testimony and written comments, Nye County expressed concern about amending the guidelines at this late date. It would be preferable, in Nye's view, to have continued to judge the suitability of Yucca Mountain under the guidelines in effect when it was first selected as a candidate site. Nye County recognized, however, that Congress had directed DOE to make changes and found the current proposed changes to be much preferable to the 1996 proposal. Indeed, in two instances, involving closure of the potential repository and the transparency of the total system

performance assessment on which the sites suitability will be based, DOE in its 1999 proposal specifically cites suggestions by Nye County as, in part at least, reasons for the improvements over the 1996 draft.

Nye County continues to have concerns with the proposed new guidelines, and believes further changes and improvements are necessary. In 1984, the final guidelines were essentially a product of negotiations between DOE and the NRC. Nye County will continue to be actively involved in this area, and will be working closely with the NRC staff to ensure that Nye plays a role in any negotiations over the final guidelines.

Local Concerns Well Represented at NRC Public Meeting in Pahrump

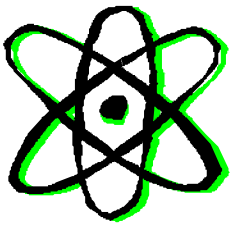
NRC
Holds Public Meeting in Pahrump

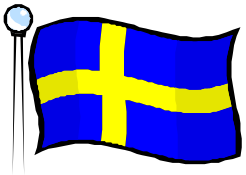
On May 4, the Nuclear Regulatory Commission (NRC) staff held another in its series of public meetings in Nye County designed to better acquaint the public with the licensing process which will govern Yucca Mountain if: (1) It is found suitable, and (2) DOE applies for an NRC license to construct and operate a repository.

The NRC held a similar public meeting in 1999 in Beatty. The meeting was well attended by residents of the Pahrump Valley, as well as other towns in Nye County and adjacent California communities. The NRC staff explained the licensing process in general, its role in the entire repository program, and how the public will be able to participate in the formal licensing process, if one takes place.

Representatives of several local governments, including Nye County, also attended the meeting. Malachy Murphy, the Nye County Licensing & Regulatory Advisor, attended and provided input from Nye's perspective at several points in the meeting. The NRC will eventually make a transcript of the meeting available to those who requested one.

The NRC plans to continue its efforts to explain the process to the public with a meeting in Pahrump sometime in the future devoted to setting out exactly how the formal licensing hearings will be conducted, how evidence will be accepted, how witnesses will be heard, etc. Nye County will provide notice of such a meeting as soon as it might be scheduled.





Similarities and Differences Between Swedish and U.S. Programs Discussed

Nye County Officials Compare Notes With Swedish Counterparts

Torsten Carlsson, Mayor of Oskarshamn, Sweden, traveled to the U.S. in early May at the invitation of the U.S. Nuclear Waste Technical Review Board (NWTRB) to exchange views with his Nye County local government counterparts on impacts of government disposal of nuclear waste in their respective jurisdictions. Mayor Carlsson was accompanied by Mr. Krister Hallberg and Mr. Harald Åagen.

Carlsson presented a paper to the NWTRB at its regular Board meeting in Pahrump, NV, on May 1, 2000 detailing the Swedish government's efforts to locate a geologic repository for that nation's high level nuclear waste near the town of Oskarshamn, and the impacts of that project on the local government and citizenry. Key differences identified by Carlsson between the Swedish and U.S. disposal programs were:

- Local governments in Sweden have the option not to accept the disposal site; in the U.S., Congress mandated that the site be located in Nye County.
- Local Swedish citizens and government leaders are intimately involved in making decisions about the site; in the U.S., Nye County has little voice in how the program is carried out or in prioritizing program work plans.
- The Swedish program is not driven by arbitrary deadlines and planning schedules. There is time for science to take its course; the U.S. program is driven by congressionally-mandated deadlines resulting in abbreviations or abandonment of certain scientific studies.
- The Swedish sites being studied place the disposal sites in saturated rock; the U.S. program places the repository in unsaturated rock.

Mayor Carlsson and his associates spent several hours exchanging views with Nye County officials in Pahrump.

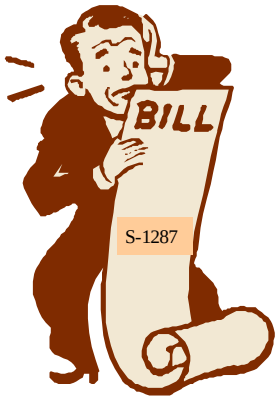
PRES. CLINTON VETOES S-1287 NUCLEAR WASTE POLICY AMENDMENTS ACT OF 2000

Bill S-1287 was recently sent to the President for signature. The President vetoed the bill. The following is President Clinton's comments on why he vetoed the bill: *"The overriding goal of the Federal Government's high-level radioactive waste management policy is the establishment of a permanent, geologic repository. This policy not only addresses commercial spent nuclear fuel but also advances our non-proliferation efforts by providing an option for disposal of surplus plutonium from nuclear weapons stockpiles and an alternative to reprocessing. I support our national defense by allowing continuing operation of our nuclear navy, and it is essential for the cleanup of the Department of Energy's nuclear weapons complex.*

Since 1993, my Administration has been conducting a rigorous world-class scientific and technical program to evaluate the suitability of the Yucca Mountain, Nevada, site for use as a repository. The work being done at Yucca Mountain represents a significant scientific and technical undertaking, and public confidence in this first-of-a-kind effort is essential.

Unfortunately, the bill passed by the Congress will do nothing to advance the scientific program at Yucca Mountain or promote public confidence in the decision of whether or not to recommend the site for a repository in 2001. Instead, this bill could be a step backward in both respects. The bill would limit the Environmental Protection Agency's (EPA's) authority to issue radiation standards that protect human health and the environment, and would prohibit the issuance of EPA's final standards until June 2001. EPA's current intent is to issue final radiation standards this summer so that they will be in place well in advance of the Department of Energy's recommendation in 2001 on the suitability of the Yucca Mountain site.

There is not scientific reason to delay issuance of these final radiation standards beyond the last year of this Administration; in fact waiting until next year to issue



these standards could have the unintended effect of delaying a recommendation on whether or not to go forward with Yucca Mountain. The process for further review of the EPA standards laid out in the bill passed by the Congress would simply create duplicative and unnecessary layers of bureaucracy by requiring additional review by the Nuclear Regulatory Commission and the National Academy of Sciences, even though both have already provided detailed comments to the EPA. This burdensome process would add time, but would do nothing to advance the state of scientific knowledge about the Yucca Mountain site.

Finally, the bill passed by the Congress does little to minimize the potential for continued claims against the Federal Government for damages as a result of the delay in accepting spent fuel from utilities. In particular, the bill does not include authority to take title to spent fuel at reactor sites, which my Administration believes would have offered a practical near term solution to address the contractual obligation to utilities and minimize the potential for lengthy and costly proceedings against the Federal Government. Instead, the bill would impose substantial new requirements on the Department of Energy without establishing sufficient funding mechanisms to meet those obligations. In effect, these requirements would create new unfunded liabilities for the Department.

My Administration remains committed to resolving the complex and important issue of nuclear waste disposal in a timely and sensible manner consistent with sound science and protection of public health, safety, and the environment. We have made considerable progress in the scientific evaluation of the Yucca Mountain site and the Department of Energy is close to completing the work needed for a decision. It is critical that we develop the capability to permanently dispose of spent nuclear fuel and high-level radioactive waste, and I believe we are on a path to do that. Unfortunately, the bill passed by the Congress does not advance these basic goals."

William J. Clinton

Pres. Clinton: "The bill did nothing to advance the scientific program at Yucca Mountain or promote public confidence…"

398,927 Cubic Feet Of Low-Level Radioactive Waste Material has been buried at NTS thus far in FY 2000

DOE Revises Cost of National Nuclear Facilities Cleanup; Nevada Test Site Crucial to Clean-Up Plans

The following information appeared in Environment & Energy Publishing News on April 20, 2000: *Cleaning up and closing Energy Department nuclear weapons facilities will cost as much as 44% more than first anticipated, according to a department status report on cleanup activities released last week.*

The new report estimates that the department's Environmental Management program will need $168 billion to $212 billion through 2070 for cleanup work at 113 nuclear sites across the country. Thus far, the program has completed active cleanup at 69 of the 113 sites.

A department spokesman, Tom Welch, downplayed the significance of escalating costs, saying the increases stem merely from DOE having moved along in the cleanup process to a point where it is now "able to better predict future costs."

The focus of the cleanup effort, the report says, continues to be the following highly radioactive sites: Savannah River in South Carolina, Hanford in Washington, Oak Ridge in Tennessee and the Idaho National Engineering and Environmental Laboratory.

Increased costs aside, DOE says its cleanup program is working. The Environmental Management program has accelerated the closure of the Rocky Flats Environmental Technology Site in Colorado, the Fernald Environmental Management Project, the Miamisburg Environmental Project in Ohio and other smaller sites. The agency claims accelerated closure at these sites indicates the closure strategy "has started to pay off" as completions of Rocky Flats has been moved forward from 2060 to 2006 and Miamisburg from 2030 to 2004.

New estimates for cost of completion reflect the "complexity and size" of the cleanup mission and are therefore justified to ensure the Environmental Management program meets its cleanup obligations, the report says. The upward revision, DOE explains, reflects the agency's "better understanding of project work scope and cost."

Among specific challenges facing the cleanup program are: the remediation of about 1.7 trillion gallons of contaminated ground water and 40 million cubic meters of contaminated soil and debris; the storage of more than 18 metric tons of weapons-usable plutonium (enough for thousands of nuclear weapons, DOE says); the management of over 2,000 tons of radioactive spent nuclear fuel; and the decommissioning of about 4,000 facilities no longer needed to support active department nuclear activities. — Colin Sullivan

The Nevada Test Site is crucial to the DOE's clean-up plans. The low-level radioactive waste disposal sites at Areas 3 and 5 have been, and will continue to be for the foreseeable future, receptors for large quantities of low-level waste. Already in FY 2000, 298 shipments totaling 398,927 cubic feet have been disposed of at NTS. In all, about 16 shipping sites are sending waste for disposal at NTS.

Recently, the trucks have begun avoiding the Las Vegas Valley. Therefore more truckloads are going through Tonopah, Goldfield, Beatty, Pahrump and Amargosa Valley. Nye County continues to monitor the DOE's low-level waste disposal program to be better able to analyze the cumulative impact of the government' s nuclear waste cleanup and disposal plans on Nye County.

Volume 3 Issue 3

DOE Appeals State Engineer's Denial of Water Permit for Yucca Mountain Project

DOE's Planned Use of the Water Found to be "Detrimental to the Public

The DOE filed an appeal of a decision by the State Engineer to deny water permits for the Yucca Mountain Project. The DOE seeks 430 acre-feet annually for use in the construction and operation of the Yucca Mountain high-level nuclear waste disposal facility in northern Amargosa Valley.

Under the Nevada water law, the State Engineer is required to base decisions in part on whether the application is in the public interest. The State Engineer in fact found that DOE prepared use of the water would be detrimental to the public interest and refused to issue the permit.

The U.S. Dept. of Justice, for the DOE, claims the State's ruling is contrary to congressional interest to establish the repository and thus violates the Supremacy Clause of the U.S. Constitution. Under the Nuclear Waste Policy Act, as amended in 1987, Congress directed the DOE to investigate Yucca Mountain's suitability as a permanent storage site for the nation's high-level nuclear waste.

Nye County Scientists Participate In Devil's Hole Workshop 2000

Regional Hydrology Focus of Workshop; Scientists Share Their Data

The Devil's Hole Workshop was held on May 3-4, 2000 at the Death Valley Ranch Auditorium. In conjunction with the Devil's Hole Workshop, the U.S. Geological Survey's (USGS) Death Valley Regional Groundwater Modeling Group held their annual update meeting at the Death Valley Ranch Auditorium on the afternoon of May 2. The status of all USGS modeling efforts for the Death Valley Regional Flow System were presented to the assembled Devil's Hole Group.

On May 3, the formal Devil's Hole Workshop began with presentations covering new and continuing research into the geology and hydrology of the Death Valley Regional area including Yucca Mountain and the Nevada Test Site. This year's meeting was arranged by Andrew Remus of Inyo County with assistance from Mike King of The Hydrodynamics Group who are consultants to Inyo County in the areas of groundwater hydrology and modeling. This year's program included discussions by Inyo County on the status of their current research in Gold Valley. The program concluded on Thursday with a half day field trip to the Inyo field site in Gold Valley. Mike King of Inyo presented plans for Inyo's proposed deep drilling program along the foothills of the Funeral Range in the Amargosa Valley to study flow paths into Death Valley.

Nye County presented papers that covered current work associated with the Early Warning Drilling Program Phase I and II and status of Nye County's water filings. The first paper presented by Nye County was by Sharon Louffr of the University of Pittsburgh. She is working with Dr. Tom Anderson on the geological structural setting of the Yucca Mountain Area. Tom Buqo updated the group on the Nye County Water Filings with his usual spirited presentation. Many questions were answered indicating the great interest all in attendance had when dealing with water rights issues in the Death Valley Flow System.

In the afternoon session, Rich Blakely, USGS, presented his interpretations of the Aeromag Survey conducted by Nye, Inyo and Clark counties. Parviz Montazer, Nye County, discussed the thermal gradient in well NC-EWDP-1D. Dave Cox, of Questa Engineering Corp. for Nye County, presented the results of three Nye County pump tests at well NC-EWDP-1S, NC-EWDP-9S and the Aeropark Garlic Patch Well. Dr. Maury Morgenstein (Nye County) discussed the "Black Ore" uranium deposit in NC-EWDP-3D. The final Nye County talk was by Dr. Don Shettel who discussed geochemistry of the groundwater in the Amargosa Valley.

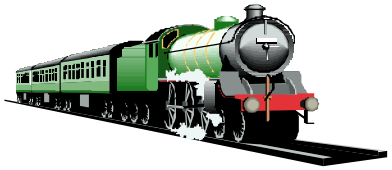
DOE Transportation Decisions Will Impose Long Term Risks on Nye County; County Seeks Safest Route and Mode Selection

US Department of Transportation regulations for highway routing of radioactive materials shipment[1] were formulated in the early 1970s. Unfortunately, they do not envision (and do not provide useful guidelines for) large-scale, long-term, long-distance shipment by a federal agency from many origins to a single destination—e.g. prospective truck shipment to transfer the nation's highly radioactive wastes from 80 commercial and defense sites to Yucca Mountain; *current* and prospective truck shipment to transfer low-level radioactive wastes from 15-35 DOE sites for disposal at the Nevada Test Site. They do not require the agencies responsible for such campaigns to conduct comprehensive plans to identify the safest, least-cost, best-practice mode-route options for the overall shipment campaign; nor do they require consideration of basic fairness.

The lack of appropriate federal guidelines for such campaigns results in a politicized routing process in which attentive and politically powerful communities prevail on DOE to divert shipments—without addressing the impacts nationwide or on particular "upstream" or "downstream" communities. A 1999 study by DOE's Center for Risk Analysis[2] showed that diversion of truck shipments (of DOE LLRW) to avoid urbanized Las Vegas increases *nationwide* costs by 14%, *nationwide* accident risks by 13%, and *nationwide* radiological risks by 8%. The diversion also involves major shifts of risks among upstream states and very significant shifts of risks onto the downstream destination county. None of these shifts were addressed, however, in recent DOE routing decisions.[3]

Nor does DOE's transportation planning identify "best-practice" mode-route choices for its two major large-scale, long-term, long-distance radioactive materials shipment campaigns: HLW transfer to Yucca Mountain; LLRW transfer to NTS. Consider the following:

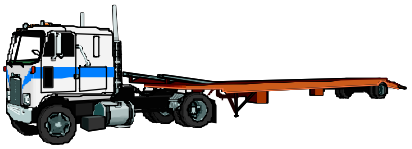
- Experts generally agree that shipment by rail is safer and less expensive than truck shipment cross-country on public highways. (In the case of highly radioactive wastes, this means escorted dedicated trains.)



- A 1999 study[4] showed that DOE's use of NTS for low-level waste disposal will save the federal government $1.7-$7.0 billion over the next 20 years, compared to other disposal alternatives.
- The recent Record of Decision by DOE/EM[5] means than the Department will use NTS for offsite disposal of virtually all low-level waste generated in the nationwide defense complex.[6] Furthermore, Yucca Mountain is the only site under consideration by DOE/OCRWM for storage of the nation's highly radioactive wastes.

Yet, the Department has not considered—and seemingly will not consider—"best-practice" solutions for the country's two largest prospective radioactive waste shipment campaigns over the next 20-40 years (including one which has been in progress over the past 20 years). The Department cannot convincingly say, "We have considered both transport campaigns, separately and in combination, and have identified the mode-route option that imposes least risk nationwide. We recognize the inequities of transferring unwanted materials from many origins to a single community destination, and propose specific actions to right those inequities. We recognize the life-cycle cost-savings to the federal government (compared to the alternatives) of using the proposed disposal sites; it is right and proper to use a portion of those savings to protect those most negatively impacted." Until the Department can make such statements, it is unlikely that public trust and confidence in the DOE's practices will increase in corridor states nationwide, or the destination state and county.

Nye County continues to work with DOE to find best-practice solutions and to undertake a comprehensive system-wide study of transportation of nuclear waste.



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[1] 49 CFR 397.101

[2] Life-Cycle Cost and Risk Analysis of Alternative Configurations for Shipping Low-Level Radioactive Waste to the Nevada Test Site (DOE/CH/CRE-6-1999)

[3] Reference news article on DOE' s allocation of $4 million annually for diverting LLRW wastes shipments to NTS (Las Vegas Review-Journal: June 12, 2000).

[4] "Benefits Accruing To the DOE Complex Attributable To the Disposal of Off-Site Low-Level Waste At the Nevada Test Site", E.J. Bentz & Associates, April 1999.

[5] "Identification of Preferred Alternatives for the Department of Energy' s Waste Management Program: Low-Level Waste and Mixed Low-Level Waste Disposal sites" (December 5, 1999)

DOE Seeks $437.5 Million for Yucca Mountain in FY2001

OCRWM Seeks Enough Funding To Meet Schedules & Deadlines

Dr. Ivan Itkin, Director, DOE/Office of Civilian Radioactive Waste Management (OCRWM), asked congress for $437.5 million for next year to further work on high-level waste disposal programs.

On March 21, 2000, Dr. Itkin submitted testimony to the House Appropriations Subcommittee on Energy and Water Development asking for an overall 25% increase over OCRWM's FY00 funding level. Itkin indicated that the requested funding will be for activities aimed at determining whether Yucca Mountain is suitable and should be recommended for development of a permanent geologic repository. The Secretary of Energy is expected to recommend the site to the President in 2001, accompanied by documentation of the basis of the recommendation.

Dr. Itkin's testimony stated that DOE's work programs at Yucca Mountain in FY2001 would:

a. Complete the necessary scientific and engineering work for the characterization of the Yucca Mountain site.

b. Update the total system performance assessment of Yucca Mountain, supporting the development of a site recommendation and integrating process models refined to reflect DOE's current understanding of the geology, hydrology, and geochemistry within Yucca Mountain.

c. Issue the Site Recommendation Consideration Report to inform all parties about DOE's evaluation to date.

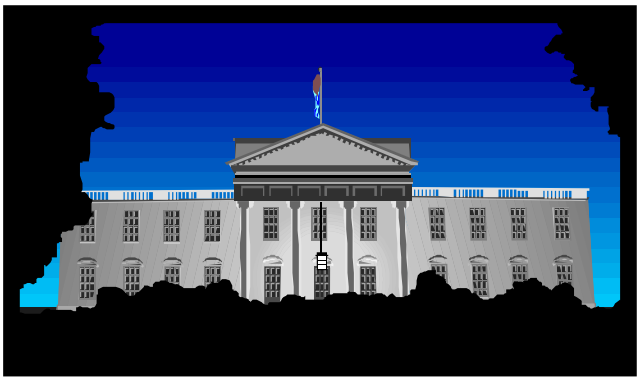
d. Hold public consideration hearings, before the Secretary decides whether or not to recommend the site to the President.

e. Issue the Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada.

f. Continue and increase DOE's efforts to support the preparation of a high-quality, complete, and defensible license application to the Nuclear Regulatory Commission if the President recommends the site in 2001.

The budget request includes $21.8 million for external oversight and Payments-Equal-To-Taxes (PETT). Under the Nuclear Waste Policy Act, as amended, Congress may provide funding for Affected Units of Local Government (AULG), including Nye County, to conduct independent studies of Yucca Mountain and its impacts. The Act allows PETT payments to be made to counties and the State of Nevada, equivalent to the taxing authority that could be exercised were the Yucca Mountain Project a private-sector enterprise. Nye and Clark counties, and the State, receive PETT. Nye County, along with eight other Nevada counties and one California county, receive funding for independent studies and oversight.

On June 29, 2000 the House passed the Energy and Water Development Appropriations Act for FY2001 giving OCRWM $413 million. The bill is expected to be finalized later this year.



ATMOSPHERIC & UNDERGROUND BOMB TESTING & NUCLEAR WASTE DISPOSAL IN NYE COUNTY 1951-2000

Volume 3 Issue 3

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Nye County's share of the nation's nuclear burden is historically high. This burden could be substantially increased by U.S Department of Energy (DOE) low-level waste decisions and by high-level waste storage and disposal legislation now being considered by Congress.

Atmospheric Testing

Between 1951 and 1958, a total of 100 atmospheric tests were conducted at the Nevada Test Site (NTS) releasing tens of millions of curies of radioactivity.

Underground Testing

Between 1951 and 1992, a total of 829 underground tests were conducted in Nye County (828 at NTS and 1 at the Central Nevada Test Area). These tests had a total explosive force 1,000 times that of the bombs dropped on Hiroshima and Nagasaki, and released hundred's of millions of curies of radioactivity.

Much of this radioactivity is

still in the ground and susceptible to transport by groundwater. Although area groundwater flow paths are not thoroughly understood, it is generally agreed that they flow from NTS toward the Nye County towns of Amargosa Valley and Beatty, and then toward California.

DOE Low-Level Radioactive Waste Disposal

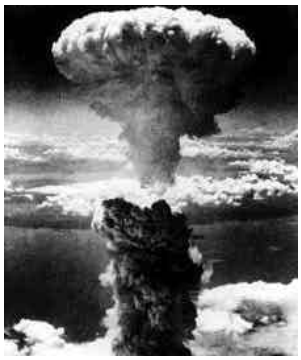
Since 1961, DOE has used two areas of the Nevada Test Site for disposal of low-level radioactive wastes from about 16 DOE facilities across the country. Pending DOE approval, five to ten additional sites could transfer low-level waste to Nye County. Through 1998, over 19 million cubic feet of material with a radioactive content of 9.8 million curies has been buried at NTS. Over the next 20 years, the volume of low-level radioactive wastes buried at NTS could more than double.

Commercial Low-Level Radioactive Waste Disposal

From 1962 through 1992, about five million cubic feet of commercial low-level radioactive wastes were buried at the U.S. Ecology site a few miles from the Nye County town of Beatty. The radioactive content of these wastes is estimated at 641,000 curies. Elevated levels of certain types of radioactivity have been detected beyond the boundaries of the site, where it could possibly move in groundwater systems towards the Nye County Town of Amargosa Valley. The U.S. Ecology site is still used for disposal of hazardous wastes.

Commercial Spent Reactor Fuel Disposal

Yucca Mountain has been designated by Congress as the nation's only site to be studied for disposal of commercial spent nuclear reactor fuel. The 30,000 metric tons of commercial spent fuel discharged from commercial reactors through 1994 contained 27 billion curies of radioactivity. A fully loaded repository would hold up to 86,000 metric tons of spent fuel. Proposed legislation in



Congress requires shipments to begin in 2007 and implies a transportation route that would use 1999 miles of rural 2-lane roads in Nye County that run directly through four communities. In several of these communities, the potential for radiation exposure is increased by the proximity of homes, schools and businesses to the narrow roadway, and by the slow movement of vehicles through the towns.

DOE High-Level Nuclear Waste Disposal

Yucca Mountain in Nye County is also the intended disposal site for highly-radioactive wastes from the nation's defense complex. The radioactive content of DOE-owned spent nuclear fuel was estimated at 836 million curies in December 1994, and that of other high-level wastes was estimated at 959 million curies.

Upcoming Meetings

July 12—Nevada Science & Technology Corridor Advisory Board, 9 am at the Beatty Community Center, Beatty, NV. For additional information, contact Dan Simmons at (775) 727-6456.

August 3 —Department of Energy/Affected Units of Government (AUG), 9 am at the Las Vegas Yucca Mountain Science Center, Las Vegas. For additional information, contact Allen Benson at (702) 794-1322.