

CITIZEN ACTION COMMENTS ON HOLTEC DEIS
Citizen Action New Mexico Comments

Holtec Nuclear Waste Facility Draft Environmental Impact Statement

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Nuclear Regulatory Commission Chairwoman Kristine L. Svinicki, was appointed by President Trump in 2018. Her Congressional interview did not address the back end of the fuel cycle problems. A Programmatic Environmental Impact Statement (PEIS) is necessary to address the lack of planning for long-term safe storage of radioactive wastes. The Holtec plan for temporary storage should be part of a larger policy discussion under a PEIS. Current law provides no alternative repository site to Yucca Mountain.

What the NRC does is to deny any discussion of nuclear waste disposal policy in order to eliminate public opposition to dumping the waste in New Mexico. By only allowing discussion of technical issues the NRC can force through whatever technical means for that dumping that NRC deems acceptable. Thus, NRC chooses the suitability of the Holtec site over the strenuous objections of the public, state officials and resource users in the New Mexico region of the Holtec project. NRC allows the imposition of a de facto policy that dumps nuclear waste on a supposed short term scenario avoiding all policy and environmental issues that would be present in a long-term disposal policy.

NRC assumes an authoritarian role that defies the public, environmental law and the federal 1982 Nuclear Waste Policy Act requiring deep geologic disposal. A "monitored retrievable storage" (MRS) facility is authorized by NWPA section 142, but construction is prohibited until NRC has authorized the construction of the Yucca Mountain repository, now abandoned. Current federal law does not permit the U.S. Department of Energy, which would be the ultimate titleholder to the fuel rods, to enter into the sort of contract proposed by Holtec.

Citizen Action New Mexico is opposed to the Holtec project and supports Alternative A of the Draft Environmental Impact Statement (DEIS) for no project construction. Citizen Action incorporates its prior comments of May 8, 2018 in their entirety into this document. Holtec is no solution to the mountain of radioactive waste building up at reactor sites. Holtec would be a terrible double burden on taxpayers, public health and safety and the environment for tens of thousands of trips across the United States: first for temporary storage and then later to a permanent repository if one can even be sited, developed and funded within the 40 year time frame.

The Holtec plan in essence is the NRC, using preemption powers under the Atomic Energy Act to bully the state of New Mexico to accede to a private developer's plan to force New Mexico to become a permanent disposal site for much of the nation's nuclear waste. Even the time period required for maintaining "interim storage" in New Mexico is unclear: Is it only 40 years, 120 years or a thousand years? While the Draft EIS considers local environmental effects, it fails to

address national public concerns for the siting in New Mexico as well as the absence of a decommissioning plan. Unfortunately, NRC will not consider public contentions or concerns much less criticism of its process to rush to approval.

The DEIS needs to have a discussion of the history of the selection of the Holtec site and that relationship to satisfying the 1982 Nuclear Policy Waste Act goal for a single underground repository. The DEIS limits its discussion of sites for the CISF to southern New Mexico as presented by the private developers ELEA. No other nationwide analysis has been performed for alternative site locations. As a plan to handle all of the nation's reactor waste, the site selection analysis is extremely limited. Even though Yucca Mountain would not be a permanent repository at present what purpose could it serve for temporary storage?

NRC also rules out development of a DOE plan without explanation of what timeframe may be available to accomplish a DOE plan. The DEIS lacks analysis of current onsite storage practices and the expected time period for which that would be viable. If containment at reactor sites is viable for 40 to 100 years and NRC believes a permanent repository will be available in the 40 year period, why should a prior effort be made to remove the waste from reactor sites?

The DEIS fails to set forth the purpose and need for the proposed temporary storage solution before a repository becomes available. The comparison of the safety, efficiency and costs for the alternative for Hardened Onsite Storage (HOSS) and HELMS or continuing storage at the reactor sites are not set forth until a repository becomes available. The No-Action Alternative is not analyzed in terms of taking no action or modifications to change storage at existing reactor sites.

One question is how the NRC can rely upon the Bureau of Land Management recommendation for the issuance of a permit to construct and operate the rail spur when neither BLM nor NRC itself has received little if any support for Holtec from consultation with New Mexico Senators and State Representatives, the Governor, Tribal, state agencies and input from other stakeholders both national and local.

NRC virtual meetings and short circuiting of face-to-face public meetings has also been strenuously objected to during the pandemic as costly to attend and prevent many who have no phone service or internet connectivity. NEPA is not satisfied by virtual meetings. The NRC rush to Holtec approval is twofold: 1. it is politically motivated to take place before an end to the Trump presidency and 2. by the federal government attempt to stop paying utilities for onsite storage.

NRC claims that: "Ultimately, the SNF at the proposed [Holtec] CISF would be relocated to a permanent geologic repository." (B 31.26 Response) Yet, NRC fails to address the fact that after spending billions of dollars for the Yucca Mountain repository, a repository still has not been developed since planning began in 1957. Search for or the location of another site is not pending. Thus, more than 60 years have rolled by, longer than the 40 year storage period NRC envisions for Holtec "temporary storage."

Why should the public believe the NRC assumption that NRC and DOE are capable to find and

develop a repository in a reasonable time period? This is another one of NRC's many evasive assumptions designed to ignore financial, technical and political issues that the public has raised about environmental justice, weak canisters, damaged canisters prohibiting transports, lack of a repackaging facility, unwillingness of states foreign to New Mexico to allow a second passage, insufficient funds to relocate the waste, insufficient funds to find a repository, illegality of allowing a private developer to receive the wastes, potential failure of corporate responsibility and liability. NRC is really dooming New Mexico to be the de facto permanent repository at a site that is not a deep geological repository as required by the 1982 NWPA.

NRC claims that, "The NRC strives to be open and transparent with its analyses and evaluations of its license applications." This is more NRC nonsense from an agency that caters to the nuclear industry! By the end of the license term of the proposed CISF [40 years], the NRC "expects that the SNF would have been shipped to a permanent repository." Does NRC really expect the public to buy this fatuous assumption? The assumptions in the license application have no legal basis. There is no guarantee that the DOE would take title to the Holtec wastes in whatever condition that the wastes may then exist. Utility owners may be better off waiting until a permanent DOE repository is available instead of going forward with payments to a private operator.

Limiting the environmental analysis for Holtec to a time period that may be far less than the necessary timetable to develop a repository violates NEPA. The DEIS indicates NRC would only consider environmental effects for each licensing renewal that may take place after each 40 year segment. NRC is completely violating the National Environmental Policy Act requirements to consider the long term impacts for the probability of exceeding of 40 year periods. NRC is avoiding any realistic analyses for the future environmental consequences for storage of at least 120 years and well beyond that as reasonably foreseeable from nuclear waste that can remain toxic for millions of years. Even when the DOE determined it would develop a repository, a multi-billion dollar failure resulted at Yucca Mountain!

A major purpose of an Environmental Impact Statement is to consider alternatives to the proposed action. NRC manages to turn that requirement upside down on its head by stating that the purpose of the analysis is to develop a CISF, thus justifying NRC failure to consider alternatives. Therefore, by NRC reasoning an alternative that does not accomplish that goal should not be considered no matter how cost effective or environmentally sound. An example of this wrongful NRC noncompliance with NEPA requirements is the following statement:

"Some scoping comments suggested that the NRC should require the implementation of HOSS or HELMS as an alternative to the proposed action. These alternatives are not being analyzed in detail, because they do not meet the purpose and need of the proposed action (construction and operation of a CISF)."

NRC violates NEPA by unreasonably excluding viable alternatives which are currently in use at utility sites and with no explanation as to why such alternatives cannot be further expanded and compared to costs and environmental consequences for the proposed Holtec project. Again, this is NRC violation of NEPA. No analysis is presented for how long storage at reactor sites in the current configurations would remain viable and how many utilities would want to pay the costs for private storage by Holtec.

If it's an issue the NRC does not want to consider in the DEIS, NRC simply bans the issue by putting it in the category of being "Outside the Scope." This allows NRC to avoid difficult issues raised by the public thereby allowing NRC to arrive at its predetermined decision to grant a permit for the CISF. Issues outside the scope include:

- Need for a Thermodynamic Analysis for Each Alternative
- Storage of Foreign Spent Fuel at the Proposed CISF
- Compensation for Willingness to Store SNF
- Decommissioning Plan
- Financial Assurance
- Business Practices of Involved Parties
- Reprocessing or Other Uses of SNF
- Compliance with International Law
- Request for DOE Evaluation
- Governmental Actions by Other Agencies
- Political Decisions
- Use of Proposed CISF for Research
- Opposition to Nuclear Power, Weapons, and Industry and Calls for Renewable Energy Sources
- Health Effects from Nuclear Energy and Weapons
- Support for Nuclear Power and the Nuclear Industry
- Address Legacy Issues
- Compensation for Legacy Issues
- Criticisms or Praise Regarding NRC Credibility
- Segmentation of SNF Issues and Analyses
- Disapproval of the ISP (WCS) Proposed CISF
- Site Specific Issues at Other Facilities
- Support for Other Sites
- Comments Regarding Yucca Mountain
- Comments Regarding Use of Yucca Mountain as a Repository or the Lack of Available Repository
- Cask and Canister Fabrication Quality
- Storage and Transportation of High-Burnup SNF
- Comments Concerning Security and Terrorism

At 1.4.2

The analysis for the effects the proposed project could have on global climate change estimates from the potential effect of the facility's greenhouse gas emissions are only based on a 40-year license term.

The DEIS seeks to eliminate from the discussion scope (1.4.3):

- concerns associated with the Yucca Mountain licensing proceeding and national progress in developing a repository

- legacy issues from prior nuclear activities not in the vicinity of the proposed project
- site-specific issues at other facilities

By taking these positions the NRC is ignoring some of the most important issues in the public

mind as to whether New Mexico becomes an unwilling recipient for a permanent repository for existing wastes, more future generated nuclear reactor wastes and the adequacy of storage prior to transport for wastes from other sites. NRC thus limits any discussion of the elephant in the room.

Holtec has no plan for double canister containment of high burnup fuel that is especially prone to cause cracking of zirconium fuel rods and leakage into containers. There are no studies or evidence from NRC and DOE to indicate that such single containment will be protective. Criticality and hydrogen gas explosions become unexamined issues. Repackaging leaking wastes for removal and transport is not explained as a viable process. The high costs of repackaging may make interim storage exorbitantly more expensive for the utilities than onsite storage until a repository is developed. Cost comparisons of interim storage vs. onsite storage are conspicuously absent from the DEIS. The DEIS fails to conduct a financial analysis of costs for long term private financing vs. DOE financing and what the consequences are.

Three decades after the Nuclear Waste Policy Act of 1982 there still is no disposal route and no long term management strategy for highly radioactive waste. Many suggestions for nuclear waste disposal have been made for the past 50 years – shoot the waste into outer space on rockets, ocean disposal where the continental and ocean plates join together, salt mines, deep geologic disposal in granite and reprocessing spent fuel to burn in a reactor. A repository at Yucca Mountain, NV failed to gain approval as did the Private Fuel Storage Facility for commercial spent nuclear fuel in Utah under a 1997 agreement with the Goshute Indians of Utah.

The 2012 Blue Ribbon Commission was not a PEIS, although one recommendation for a new path forward made in 2012 was that a consolidated interim storage site should be developed promptly with the consent of local people. The BRC had no authority to overturn the 1982 NWPA. Touting - “America’s Nuclear Future”, the obvious weighting of the BRC panel members for promotion of nuclear power was biased and disappointing. The BRC lacked legal authority to place a storage site in any particular community and did not produce a plan meeting legal requirements for an EIS. Bringing high level spent fuel to New Mexico as the second poorest state in the United States with a large, low income, minority population flies in the face of decades of widespread New Mexico public opposition. Environmental justice concerns and widespread radioactive contamination and death already present in New Mexico -- from atomic bomb testing, uranium piles and nuclear dumps -- should preclude bringing more nuclear waste to New Mexico. Treating the New Mexico public as a national sacrifice zone is a violation of Constitutional rights to Equal Protection.

There is no comprehensive DEIS analysis or program for considering the length of expected operation of existing reactors, new reactors, amounts of spent fuel that will be generated including high burnup fuel, the amounts of damaged fuel that cannot meet acceptance criteria for interim storage at Holtec or elsewhere, and how much nuclear waste will have to be stored by other means than emplacement at Holtec.

As many members of the public have pointed out, it makes no sense to transport radioactive waste to Holtec when it can be safely stored onsite or near onsite for over 100 years instead of generating all the costs -- of transport, packaging, leakage and acceptance criteria, etc.,-- a

second time when containers at Holtec may have become more fragile or damaged.

There are several operational aspects for continuing nuclear reactor operations that are not being addressed by a temporary storage plan of Holtec. Utilities are seeking subsequent license renewal which would authorize operation of commercial nuclear power reactors for up to 80 years. Nuclear waste may be accumulating at existing reactor sites much longer than the 40 year temporary period envisioned and anticipated for the Holtec project. Without a comprehensive plan in place for reactor waste there is a lack of justification for rapid approval of the Holtec license. Small modular reactors are being proposed for operation. Where will that waste be disposed? Is that considered for Holtec?

The Holtec project is in clear conflict with primary economic resources in southeastern New Mexico — the oil and gas industry and the industry are objecting. Tommy Taylor, director of oil and gas development for Fasken Oil and Ranch stated “One cask has as much radiation as the nuclear bomb dropped on Nagasaki. The Permian Basin is the No. 1 oil producing region in the U.S. It has changed the geopolitical environment around the world,” he said. “This region is too important to U.S. security to allow this.” <https://nuclear-news.net/category/2-world/north-america/usa-north-america/page/100/>.

Farming, water resources and potash mining also conflict with the Holtec project.

The federal government in several court decisions has been held to be in a breach of contract for its failure to develop a permanent repository.

NRC regulations require that all applications to operate a temporary storage facility must have a decommissioning plan. 10 C.F.R. 72.130. The Holtec project has not presented a decommissioning plan and cannot currently do so because there is no permanent repository approved, under consideration, located or being searched for. Additionally, prior to NRC issuing any license, Holtec is required to provide the estimated cost of decommissioning the site, in the form of a prepayment, surety, the execution of an external sinking fund, or another “guaranteed method.” 10 C.F.R. 72.30 (e). Without knowledge of the site of a permanent repository, Holtec cannot realistically estimate costs for removal and cleanup of its site. How will that be calculated when the term of interim storage is unclear?

Safe transportation into the Holtec facility — and back out of it, if a permanent repository eventually is established — has been a top consideration for lawmakers and the public and there is no adequate response from NRC. In fact there is no current reality to the prospect of a permanent repository. NRC approval of the Holtec application under the circumstance that there is no permanent repository leaves Holtec and New Mexico as being a de facto repository that would not be suitable for deep geological disposal.

State and local organizations such as public utility commissions remain responsible for establishing acceptable methods for fund collections from ratepayers, reimbursements, and site restoration requirement. One hundred twenty (120) years into the future there is no assurance that Holtec, Inc. will even exist. Will NM have to sue the states that generated the wastes for maintenance funds or decommissioning costs? If NM has to sue Holtec, there is no guarantee

under 10 C.F.R. 72.44 that New Mexico will be able to fully recover financial costs if a bankruptcy is successfully filed by Holtec or its corporate successors.

NRC should not allow a utility licensee in decommissioning to use decommissioning funds for costs associated with spent fuel management and specific-licensed independent fuel storage installation decommissioning (ISFSI) unless the licensee first demonstrates that it retains sufficient funding, at all times, to complete radiological decommissioning.

Will licensees be required to provide long-term onsite storage costs for offsite shipment and accidents occurring for shipment of spent fuel to and from Holtec?

Is NRC going to maintain a resident inspector at the Holtec site?

Are necessary new regulations in place for several areas, including emergency preparedness, physical security, cyber security, drug and alcohol testing, training requirements for certified fuel handlers, decommissioning trust funds, financial protection requirements and indemnity agreements. What will be the role of state and local governments in the decommissioning process and aging management of the Holtec dump?

The Environmental Impact Statement and other documents must provide that emergency preparedness and response requirements are established and maintained to adequately provide for public health and safety and protection of the environment during all phases of the chain of disposal going to Holtec and for the decommissioning of Holtec. That should include:

risk-informed emergency preparedness requirements for the different phases of spent fuel management;
when the spent fuel is contained in the spent fuel pool;
when the spent fuel is transferred into a dry cask storage system; and
until such time as the fuel is removed from the site and transferred to and away from Holtec. Shipping containers currently in use may not meet waste acceptance criteria at any future repository. How would such containers be repacked? With regard to economic impacts of a potential incident or catastrophic accident in NM as the host community, there needs to be expansion of the current NRC financial protection regulations, for both offsite and onsite, to require decommissioning licensees to meet financial requirements that are adjusted commensurate with the level of risk posed by Holtec as a decommissioning plant.

The selection of the Holtec site ignores the importance of water resources in the area. NM state surface water quality standards at 20.6.4 NMAC still apply to surface waters of the state, including playa lakes. The DEIS does not discuss that the playas were heretofore considered Waters of the United States.

The DEIS ignores examination as to whether appropriate and favorable geological and hydrological conditions exist. The siting of the CISF "was selected because of the following favorable factors ...private ownership of t/Je land ..., equal distance between the cities of Hobbs

and Carlsbad ... , proximity to U.S. Highway 62/180 ... , [and] availability of federal lands for expansion." Application Section 2.3 (Site Selection Process).

In its DEIS, NRC ignored the very pointed comments and concerns of the NM Water Quality Bureau regarding the Holtec site and the connection of groundwater, playas, aquifers, artesian processes, karst, sinkholes and collapse of underlying geology from prior and ongoing potash mining activities.

Much of the research upon which Holtec relies is recycled and out of date. The DEIS insufficiently addresses the findings of Zhang et al., (2018) who used

interferometric satellite image analysis to inexpensively and easily monitor ground surface subsidence along the northern margin of Nash Draw on a monthly frequency and at centimeter scales. These techniques (i.e., electrical resistivity tomography, ground penetrating radar, acoustic and active source seismic surveys) should be used at the proposed Holtec site to adequately address processes of shallow subsurface karst features that can easily be hidden from the surface due to the nature of windblown erosion and sediment carried by precipitation events.

The existing thin-wall canisters are currently at risk for major radioactive releases.

The fuel will go critical if water enters through cracks, admits both Holtec and the NRC. There are also numerous vulnerabilities for hydrogen gas explosions.

In summary, it matters little to NRC that the DEIS is a piece of bureaucratic rubbish. That is because NRC only feigns to show superficial compliance with the NEPA and doesn't care about the nuclear waste disposal problems that it is generating for New Mexico.

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