

COMMENTS OF SIERRA CLUB REGARDING THE DRAFT ENVIRONMENTAL
IMPACT STATEMENT FOR APPLICATION BY HOLTEC INTERNATIONAL FOR A
LICENSE TO CONSTRUCT AND OPERATE A CONSOLIDATED INTERIM
STORAGE FACILITY FOR SPENT NUCLEAR FUEL AND HIGH LEVEL
RADIOACTIVE WASTE

Docket No. 72-1051
NRC-2018-0052

On March 13, 2020, the NRC issued a draft environmental impact statement (DEIS) in relation to an application by Holtec International to construct and operate a consolidated interim storage (CIS) facility in Lea County, New Mexico. The Federal Register notice for the DEIS was published on March 20, 2020. The DEIS raises many issues and concerns that require comment and subsequent revision of the DEIS.

Sierra Club is the nation's largest grassroots environmental organization with over 700,000 members. Sierra Club supports sustainable energy alternatives (renewable energy and energy efficiency) that do not harm the environment. Sierra Club opposes nuclear power because its fuel cycle from uranium mining to spent radioactive fuel poses grave dangers to public health and the environment. In addition, reliance on nuclear power unjustifiably delays beneficial transition to clean and renewable energy sources.

The storage and disposal of spent radioactive fuel from nuclear reactors is a problem that has no good solution. Sierra Club believes that all alternatives to CIS should be evaluated and seriously considered. CIS poses unnecessary dangers and risks that must be avoided.

The following are Sierra Club's comments regarding the DEIS

Purpose and Need

The purpose and need for the Holtec project is described in the DEIS, p. 1-2, as follows:

The purpose of the proposed Holtec CISF is to provide an option for storing SNF from nuclear power reactors before a permanent repository is available. SNF would be received from operating, decommissioning, and decommissioned reactor facilities.

The purpose and need statement goes on to acknowledge that there is no current plan for a permanent repository and the development of a permanent repository has been delayed indefinitely. In other words, there may never be a permanent repository, in which case, the CISF would be a de facto permanent repository. Therefore, the purpose and need

statement must address the need for the CISF to become a permanent storage facility, i.e. a de facto permanent repository.

This is an important point because the environmental impacts of permanent storage must be addressed in the DEIS pursuant to NEPA. The D.C. Circuit Court of Appeals made this clear in *New York v. NRC*, 681 F.3d 471, 478 (D.C. Cir. 2012). In holding that the NRC's former waste confidence decision violated NEPA because it did not address the possibility of permanent storage, the court said, "an agency must look at both the probabilities of potentially harmful events and the consequences if those events come to pass." In violation of this precedent, the Holtec DEIS does not consider the likelihood of a permanent repository never being developed.

Rather, the NRC tries to limit the scope of the DEIS to the initial 40-year license. The DEIS assumes there will be subsequent relicensings, but does not say how many relicensings there might be nor what the impacts would be if a future relicensing were denied, leaving at least 100,000 MTU of radioactive waste stranded.

Furthermore, if there are continuous relicensings, the refuge the NRC continuously seeks in the Continued Storage Rule would not be available. The Continued Storage Rule only applies to the period of time after the expiration of the licensing period. If the Holtec facility is continuously relicensed, there would never be a period of time after the expiration of the relicensing period.

The purpose and need statement under NEPA is important because the purpose and need statement "necessarily dictates the range of 'reasonable' alternatives." *Carmel-by-the-Sea v. U.S. Dep't. of Transp.*, 123 F.3d 1142 (9th Cir. 1997). The definition of purpose and need must be reasonable. *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190 (D.C. Cir. 1991). There is no way to know if the statement of purpose and need is reasonable unless it is supported by data and evidence. Furthermore, the agency must not accept out of hand the applicant's statement of purpose and need. In *ELPC v. NRC*, 470 F.3d 676, 683 (7th Cir. 2006), quoting *Simmons v. Corps. of Engineers*, 120 F.3d 664, 666 (7th Cir. 1997), the court said:

We have held that blindly adopting the applicant's goals is a "losing proposition" because it does not allow for the full consideration of alternatives required by NEPA. NEPA requires an agency to "exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project" and to look at the general goal of the project rather than only those alternatives by which a particular applicant can reach its own specific goals.

As the court said in *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190 (D.C. Cir. 1991):

[A]n agency may not define the objectives of its action in terms so unreasonably narrow that only one alternative from among the environmentally benign ones in the agency's power would accomplish the goals of the agency's action, and the EIS would become a foreordained formality. . . . Nor may an agency frame its goals in terms so unreasonably broad that an infinite number of alternatives would accomplish those goals and the project would collapse under the weight of the possibilities.

The purpose and need statement must, therefore, address the likelihood of permanent storage. Instead, the purpose and need statement explicitly relies on the existence of a permanent repository in a reasonable amount of time. It is arbitrary, capricious, and unreasonable to rely on an unfounded and speculative assumption to create the purpose and need.

It is also important to remember that the general goal of the project is to provide storage of the waste, until, if ever, a permanent repository is developed. The general goal is not the specific excuses used by the DEIS to justify Holtec's proposal, that the reactor site cannot be put to other uses if the waste is stored safely on site and that on-site storage will delay decommissioning. Proper and safe storage at the reactor site can accomplish that goal. On-site storage does not preclude the rest of the reactor site from other uses. Moreover, making the site available for other uses is not within the purview of the NRC, so it is not a purpose and need of the NRC. Nor does on-site storage delay decommissioning. NRC policies and procedures specifically allow for an ISFSI after decommissioning. So the alternative of on-site storage should be given fair and adequate consideration.

Application of the Continued Storage Rule

As explained above, the Continued Storage Rule would have no application to this project if the facility is continually relicensed. That is because the Continued Storage Rule applies only to the period after the expiration of a license. The DEIS claims that the Continued Storage Rule is incorporated into the DEIS for the time period beyond the term of the CISF license. It is not clear, however, how the DEIS incorporates the Continued Storage Rule. Nor is it clear whether the DEIS is using a 40-year license period or is assuming continuous relicensing. The DEIS must make this clear.

It is also unclear whether Holtec could just refuse to relicense the CIS facility and rely on the Continued Storage Rule after the expiration of the initial license. The Continued Storage Rule purports to provide assurance that there are no significant environmental issues with storing the waste beyond the licensing period. The DEIS must address the impact of the Holtec facility beyond the licensing period. As the DEIS admits, p. 5-16, the GEIS for the Continued Storage Rule relied on several assumptions based on the specific characteristics of the Private Fuel Storage facility in Utah. Those assumptions are:

- Institutional controls, i.e., NRC regulation, will continue.
 - A dry transfer system (DTS) will be built at each ISFSI location.
 - The ISFSI facility and the DTS will be replaced on a 100-year cycle.
 - The ISFSI would store no more than 40,000 MTU.
- The ISFSI would be on a site of 820 acres, with the actual size of the storage facility being 99 acres. It should be noted that the Holtec facility would be on a site of 283 acres and a storage facility of 110 acres, storing over 4 times the amount of radioactive waste as the PFS project.
- There would be a DTS at the site.
 - Construction and operation would be similar to the PFS facility in Utah.
- Location of an ISFSI would be approved on the basis of the factors in 10 C.F.R. Part 72, Subpart E, including adequate protection for design basis external events, population density, seismicity, and flooding potential.
- Location of an ISFSI will be chosen to minimize or avoid impacts to water, ecological, historic and cultural and other resources.

The DEIS maintains that the DEIS is a site-specific analysis that addresses the differences between the Holtec facility and the PFS facility. It is not clear, however, that the DEIS addresses the impact of the site-specific characteristics of the Holtec facility after the licensing period. Therefore, the DEIS cannot rely on the Continued Storage Rule.

Description of the Proposed Action

The DEIS, p. 2-1 – 2-2, presents a confusing set of statements describing the proposed action being addressed by the DEIS. On page 2-1 the action is described as the first phase of the CIS project, delivering either 5,000 MTU or 8,680 MTU of radioactive waste to the Holtec facility. But then the DEIS says, at p. 2-1, that Holtec will be bringing at least 100,000 MTU of waste to the CIS facility during the initial 40-year licensing period. It is the 40-year license that Holtec is applying for and that is the proposed action. On the other hand, the DEIS indicated that the initial 40-year license would be just for the initial shipment of 5,000-8,680 MTU of waste. So, apparently, there would actually be 20 40-year licenses, one for each of the anticipated shipments of waste over a 20-year period.

Then, after those confusing statements, the DEIS at page 2-2 states that Holtec anticipates obtaining two license extensions of 40 years each, thereby extending the licensing of the CIS facility to 120 years. The DEIS attempts to skirt this problem by

claiming that Holtec would have to obtain relicensings for the additional 80 years. But what if either of those relicensings were denied? What would happen to the waste? Would the NRC be forced into granting the relicensings in order to avoid having stranded radioactive waste, even if the relicensings were not otherwise justified? The DEIS must address these questions.

And the first 40-year license is for just the first phase (5,000 tons). According to the DEIS, each of the subsequent 8 phases would required its own 40-year license. So what if the initial license is not renewed after 40 years, but 19 additional phases have been completed and their licenses are still valid? Would the initial 5,000 tons of waste have to be removed, leaving the additional 95,000 tons at the CIS site? In that case, where would the initial 5,000 tons go? These are all issues the DEIS fails to address in describing the proposed action.

Further, the DEIS again fails to address the likelihood that a permanent repository may never be opened, and that the CIS facility would become a de facto permanent repository without the protections of a permanent repository. So the proposed action as described in the DEIS is premised on two bets: that Holtec will receive two relicensings, and that even if the relicensings occur, that a permanent repository will be opened within 120 years. The possibility that neither of these scenarios will occur is not addressed in the DEIS. NEPA requires that they be addressed.

To add more confusion to the mix, Holtec Vice President, Joy Russell, sent a letter on January 27, 2017, to the Department of Energy in response to a request for information on private initiatives to develop consolidated interim storage facilities. See, <http://www.energy.gov/sites/prod/files/2017/02/f34/Jan%2027%2C%202017%20-%20Joy%20Russell%20-%20Response%20to%20the%20RFI%20on%20Private%20Initiatives.pdf>. In that letter, she stated that a CIS facility should have a minimum service life of 300 years. There is no indication in the DEIS that the Holtec facility is being evaluated for a service life of 300 years. This is important because if Holtec says the minimum service life should be 300 years, Holtec must believe there is a distinct possibility that the waste could be stored for 300 years. However, Holtec is only contemplating licensing the facility for at most 120 years.

Nuclear Waste Policy Act and Assuming Existence of a Permanent Repository

As noted above, the premise of the Holtec project is that a permanent repository for high-level nuclear waste will be available in the foreseeable future, and that the CIS facility will store the waste only until a permanent repository is available. This premise is flawed for two reasons: there is absolutely no assurance that a permanent repository will ever be available, and constructing and operating a CIS facility in the absence of a designated permanent repository is illegal under the Nuclear Waste Policy Act.

The DEIS, at p. 2-2, bases its evaluation, limited to the initial 40-year license period, on the assumption that a permanent repository will be available by the end of the license period. If that is a valid assumption, why is Holtec anticipating two 40-year license extensions? The NRC is basing its assumption of a permanent repository on the discussion in Appendix B of the Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel, NUREG-2157. Appendix B discusses efforts in other countries, as well as the United States, to develop a permanent repository. The substance of that discussion is that no country has been able to develop a permanent repository, even after years of trying. So the DEIS does not present any basis for assuming that the United States will ever have a permanent repository.

The Nuclear Waste Policy Act (NWPA), 42 U.S.C. § 10131(a)(5), specifically states that the federal government will not take ownership of spent fuel until it is received at a permanent repository. In its application documents, including the environmental report, Holtec stated that its proposal was for either the Department of Energy (DOE) to take title to the waste to be stored at the CIS facility, or for the reactor owners to retain title. This aspect of the proposal is never mentioned in the DEIS, because having the DOE take title would be illegal under the NWPA. The only reference to DOE taking title to the waste is in Section 2.3.1 of the DEIS, rejecting as an alternative a CIS owned and operated by DOE, Not Holtec. The DEIS has therefore not accurately described the proposed action in Section 2.2.1.

The other aspect of the proposed project, that the reactor owners would retain title to the waste, is also illegal. The Atomic Energy Act (AEA) does not authorize the NRC to license an away-from-reactor storage facility. The licensing provisions of the AEA, 42 U.S.C. § 2133, states:

The Commission is authorized to issue licenses to persons applying therefor to transfer or receive in interstate commerce, manufacture, produce, transfer, acquire, possess, use, import or export under the terms of an agreement for cooperation arranged pursuant to section 123, utilization or production facilities for industrial or commercial purposes.

This section clearly limits the NRC's licensing authority to utilization and production facilities.

42 U.S.C. § 2014 defines "production facility" as follows:

(1) any equipment or device determined by rule of the Commission to be capable of the production of special nuclear material in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public; or (2) any important component part especially designed for such equipment or device as determined by the commission. Except with respect to the export of a uranium enrichment production facility, such term as used in Chapters 10 and 16 shall not include any equipment or device (or important component part especially designed for such

equipment or device) capable of separating the isotopes of uranium or enriching uranium in the isotope 235.

The definition of “utilization facility,” pursuant to § 2014, is:

(1) any equipment or device, except an atomic weapon, determined by rule of the Commission to be capable of making use of special nuclear material in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public, or peculiarly adapted for making use of atomic energy in such quantity as to be of significance to the common defense and security, or in such manner as to affect the health and safety of the public; or (2) any important component part especially designed for such equipment or device as determined by the Commission.

Obviously, neither of these definitions include a nuclear waste storage facility. Therefore, the AEA provides no authority for the NRC to license the ISP project.

Nor does the decision of the Court of Appeals in *Bullcreek v. NRC*, 359 F.3d 536 (D.C. Cir. 2004), address the specific issue in this case. In *Bullcreek* the State of Utah was opposing the decision of the NRC to license a storage facility for nuclear waste in Utah. Utah argued that the NWPA superseded the NRC’s alleged authority to license a storage facility away from a reactor site. Utah assumed that the NRC had the authority under the AEA to license an away-from-reactor storage facility. Utah’s position was that, even assuming the NRC’s licensing authority under the AEA, the NWPA superseded that assumed authority.

The court in *Bullcreek* accepted Utah’s assumption of licensing authority under the AEA and held that the NWPA did not supersede that alleged authority. The *Bullcreek* court acknowledged that “the AEA does not specifically refer to the storage or disposal of spent nuclear fuel” *Id.* at 538. But the court then made a passing reference to the decision in *Pac. Gas & Elec. Co. v. State Energy Res. Conservation & Dev. Comm’n*, 461 U.S. 190, 103 S.Ct. 1713 (1983). The NRC’s authority to license storage facilities was not the issue in *Pac. Gas*. In dicta, the court commented that the NRC had authority, vis a vis the states, over certain aspects of nuclear energy. The court specifically cited 42 U.S.C. §§ 2014(e), (z), (aa); 2061-64; 2071-78; 2091-99; and 2111-14. None of those statutes, however, pertain to the storage of spent nuclear fuel.

So, there is no clear legal precedent that the NRC has authority to license an away-from-reactor storage facility.

Licensing the Proposed Project Would Violate the Atomic Energy Act Because It Would Be Inimical to the Common Defense and Security or to the Health and Safety of the Public

Even if the NRC were authorized by the AEA to issue a license for Holtec’s proposed project, it would still be illegal because the AEA prohibits the NRC from issuing licenses that would be “inimical to the common defense and security or to the

health and safety of the public.” 42 U.S.C. § 2133. NRC regulations are designed to carry out this statutory mandate. “Structures, systems, and components important to safety must be designed to accommodate the effects of, and to be compatible with, site characteristics and environmental conditions associated with normal operation, maintenance, and testing of the ISFSI or MRS and to withstand postulated accidents.” 10 C.F.R. § 72.122(b). The NRC will issue a license under 10 C.F.R. Part 72 only upon determining “that the application for a license meets the standards and requirements of the Act and the regulations of the Commission, and upon finding that: . . . [t]he applicant’s proposed operating procedures to protect health and to minimize danger to life or property are adequate.” 10 C.F.R. § 72.40(a)(5). The Commission must further find that “[t]here is reasonable assurance that . . . [t]he activities authorized by the license can be conducted without endangering the health and safety of the public.” 10 C.F.R. § 72.40(a)(13).

Moreover, 10 C.F.R. § 72.98 directs that:

(b) The potential regional impact due to the construction, operation or decommissioning of the ISFSI or MRS must be identified. The extent of regional impacts must be determined on the basis of potential measurable effects on the population or the environment from ISFSI or MRS activities.

(c) Those regions identified pursuant to paragraphs (a) and (b) of this section must be investigated as appropriate with respect to . . . (3) Any special characteristics that may influence the potential consequences of a release of radioactive material during the operational lifetime of the ISFSI or MRS.

There are significant public health and safety issues with the Holtec project that are not adequately addressed in the DEIS, as explained in the following sections of these comments. These issues would also preclude the NRC granting a license to Holtec under the AEA and the NRC’s own regulations.

Integrity of Nuclear Waste Canisters

The allegation in the DEIS that there are no health and safety issues relies primarily on the pretense that the canisters containing the radioactive waste are impervious to breaches or leaks that would cause radiation exposure. That assurance is not justified.

The DEIS, p. 2-5, states that the canisters will be welded or bolted shut. There is no indication that the welds or bolts cannot fail, especially if they must last for the 40-year license period, the 120-year relicensing period anticipated by Holtec, or the 300-year requirement stated by Joy Russell in her letter to DOE, or indefinitely if no permanent repository is ever developed. The lids will be above ground, subject to weather and human activity.

Page 2-5 of the DEIS also states that the Holtec facility will accommodate “almost every canister type in use in the United States.” At the hearing before the ASLB on January 24, 2019, Holtec’s attorney even emphasized the fact that all kinds of canisters would be accepted by saying that the facility was evaluated whether the waste would be in Holtec containers or even in containers from Walmart. Transcript, p. 242. What this means is that, even if the NRC relies on the certification of the Holtec containers, there may be other containers installed that have not been certified. The DEIS does not address this possibility.

In any event, the DEIS is not justified in relying on the certification of the Holtec containers. Holtec has identified the container system it will use to store the radioactive waste at the CIS site. That system is identified as the HI-STORE UMAX system. The UMAX system has been certified by the NRC pursuant to the FSAR submitted by Holtec. NRC Docket 72-1040. The FSAR (ADAMS Accession No. ML16193A339) states that the design life of the UMAX system is 60 years and the service life is 100 years.

Holtec has stated that the waste will be stored at the site up to 120 years (an initial 40-year license and two 40-year license renewals) until a permanent repository is found. The 120-year projection would be 20 years beyond the service life certified for the UMAX system.

The design life is defined in the HI-STORM UMAX FSAR as “the minimum duration for which the component is engineered to perform its intended function set forth in this SAR, if operated and maintained in accordance with this SAR.” In other words, there is no assurance that the UMAX system will perform its intended function after 60 years. The service life is defined in the HI-STORM UMAX FSAR as “the duration for which the component is reasonably expected to perform its intended function, if operated and maintained in accordance with the provisions of this FSAR.” In other words, this is the time period for which Holtec hopes the containers will function as intended. The DEIS does not discuss what happens after 60 years or 100 years. The DEIS must consider all potential impacts if the Holtec CIS facility ultimately continues to operate beyond the design life and service life of the HI-STORM UMAX system. See, *New York v. NRC*, 681 F.3d 471 (D.C. Cir. 2012).

High burnup fuel also creates issues with the integrity of the canisters. Since 1999 the amount of high burnup fuel being used in nuclear reactors has increased substantially. Since 2012 all of the fuel used in reactors has been high burnup. High burnup fuel is dangerously unpredictable and unstable in storage, even for a short term. High burnup fuel is twice as radioactive and over twice as hot as regular nuclear fuel. High burnup fuel causes the cladding around the fuel to become thinner and more brittle, inducing cracking. This makes the storing and transportation of containers loaded with high burnup fuel more likely to leak radioactive material into the environment.

A June 2013 Department of Energy report states, “. . . cladding performance issues need to be addressed before this fuel can be loaded into dry casks and transportation systems,” and “burnup rates as low as 30 Gwd/MTU can present performance issues including cladding embrittlement under accident conditions as well as normal operations.” The DOE report is found at www.hsd.org/?abstract&did=739345.

According to the Nuclear Waste Technical Review Board (NWTRB), the maximum oxide thickness for high burnup fuel (60-65 Gwd/MTU) is 100 μm . NWTRB, *Evaluation of the Technical Basis for Extended Dry Storage and Transportation of Used Nuclear Fuel*, December 2010. According to the NWTRB, this corresponds to a metal loss of 70 μm using conservative assumptions. Since zirconium cladding is 600 μm , this represents a thinning of the cladding wall of approximately 12%.

During reactor operation, there is friction wear between the cladding and fuel pellets caused by vibrations. If this wear is severe, a breach can occur. According to the NWTRB, this is the principal cause of cladding failure of reactor fuel rods. Since high burnup fuel remains in the reactor longer, the likelihood of cladding defects is increased. The DEIS contains no discussion of the impacts of high burnup fuel with respect to cladding failure.

10 C.F.R. § 72.122(h)(1) states that spent fuel cladding must be protected during storage against degradation that leads to gross ruptures in the fuel or the fuel must be otherwise confined such that the degradation of the fuel during storage will not pose operational safety problems with respect to its removal from storage. Gross cladding defects are applicable to all phases of dry cask storage. The DEIS does not specify how it will address the safety issues inherent in the gross cladding defects due to high burnup fuel.

Gross cladding defect is defined as a known or suspected cladding condition that results in the fuel not meeting its design-basis criteria for dry cask storage. Known or suspected failed fuel assemblies (rods) and fuel with cladding defects greater than pin holes and hairline cracks are not authorized.

In addition, both individual fuel rods and fuel assemblies should be intact to preclude fuel handling or operational safety problems during loading and unloading operations. It is the responsibility of the licensee to ensure that fuel placed in dry storage meets the design-basis conditions. This definition is applicable to all phases of dry cask storage (from selection and inspection of the fuel before loading until the fuel is unloaded from the cask or the cask is placed in a permanent repository). Alternative means, such as canning, will be required for dry cask storage of fuel that does not meet design-basis conditions. The DEIS does not explain how the fuel stored at the Holtec CIS facility will meet design-basis conditions.

Attached to these comments is the declaration of Robert Alvarez. His declaration discusses additional issues concerning the storage of high burnup fuel. Among other observations, Mr. Alvarez notes that once it is used, high burnup significantly boosts the radioactivity in spent fuel and its commensurate decay heat. Mr. Alvarez confirms, as noted above, that a concern is the damage that high burnup fuel may have on the cladding of the fuel. Mr. Alvarez notes that even the NRC admits there is limited data to show that the cladding of spent fuel with burnups greater than 45 Gwd/MTU will remain undamaged during the licensing period. Mr. Alvarez also states that the impacts of decay heat from high burnup fuel on the internal environment of commercial dry casks are virtually impossible to monitor, according to a 2014 NRC-sponsored study, because of high temperatures, radiation, and accessibility difficulty.

Also attached to these comments is the declaration of Dr. Gordon Thompson. Dr. Thompson notes that a typical spent fuel container has a comparatively large capacity for holding fuel assemblies and a thin wall. He states that these containers were designed to minimize licensees' short-term expenditures on spent fuel storage. They were not designed to maximize container lifetime; be highly robust during transportation or storage; facilitate monitoring of container integrity or the condition of spent fuel inside a container; or be suitable for direct emplacement in a repository.

Dr. Thompson also addresses the issue of corrosion of the spent fuel canisters at the CIS facility. Increased flooding due to climate change could occur after the accumulation of corrosive particulates – salt dust – in the below-ground storage vaults. Furthermore, cooling of the canisters at the CIS facility would occur by thermosiphon action, with air intake at about grade level. Corrosive particulates in the local environment could be drawn into the below-ground cavities by the incoming air.

An important issue related to the integrity of the canisters is a plan for inspection to ensure that the canisters are not damaged and will not leak. Dr. Thompson explains that Holtec's claimed inspection protocol would rely on visual examination, accelerated coupon testing, and eddy current testing. These alternatives are not sufficient. Dr. Thompson refers to a report issued by the Idaho National Laboratory in 2014. Several types of inspections were reviewed. The conclusion was that no conclusion could be reached about the potential for chloride-induced stress cracking and that a better way to gather information from canisters is needed. Dr. Thompson then refers to two subsequent reports in 2018. Dr. Thompson concludes from all of this that Holtec does not have the capability to perform credible inspections of the canisters. Finally, Dr. Thompson concludes that a credible plan by Holtec for taking corrective action should be a precondition for licensing the CIS facility.

The DEIS must therefore contain a thorough and accurate assessment of the integrity of the canisters.

Transportation Impacts

An integral part of the Holtec proposal is the transportation of radioactive waste from nuclear reactors throughout the country. Thus, transportation impacts not only people and the environment near the CIS site, but also creates impacts along the entire length of all transportation routes between the various reactors and the CIS site. The DEIS, at p. 3-11 and 3-12, admits that the environment affected by transportation includes populations living along the transportation routes. The DEIS further states that it is reasonable to assume the waste will come from existing reactor sites nationwide. To that end, the DEIS refers to the rail routes evaluated in the Supplemental EIS for Yucca Mountain and the map of routes, Fig. 2-11 at p. 2-46. That map does not show all of the likely routes. Knowing where the reactors are and knowing where the railroad lines are, it should not be difficult to determine the routes that will be used to transport the waste to the proposed Holtec site. The DEIS should make that determination.

In fact, the NRC has issued guidance for determining transportation impacts in the licensing of nuclear reactors. *Preparation of Environmental Reports for Nuclear Power Stations*, Regulatory Guide 4.2, Revision 3. The following information should be provided:

- the reactor type and rated core thermal power
- the fuel assembly description
- the average irradiation level of spent fuel
- the capacity of the onsite storage facilities to store spent fuel and the minimum storage time between spent fuel removal from the reactor and its transportation offsite
- the treatment and packaging procedures for radioactive wastes other than spent fuel
- a general description of transportation packaging systems to be used for unirradiated fuel, spent fuel, and other radioactive wastes (e.g., packaging system capacity, approximate dimensions, and weight). At this stage, information on specific transportation packages may not be available. In this case, the ER should provide conceptual descriptions of the transportation packages.
- the radiation dose rates for loaded packages
- shipping route information based on the locations of fuel-fabrication facilities and potential destinations of shipments of spent fuel and radioactive waste
- the transport mode for new fuel shipment to the plant

- the transport mode for spent fuel shipments offsite
- the transport mode for other radioactive waste shipments offsite
- the data related to the shipping route (e.g., distances and population densities in urban, suburban, and rural population density zones by State) from the fuel-fabrication plant to the reactor and from the reactor to the facilities to which spent fuel and radioactive waste will most likely be sent, if applicable

Therefore, the generic treatment of transportation risks in the DEIS, with little or no reference to the above criteria, is insufficient.

The necessity of a more focused analysis of transportation risks is more fully explained in a report by Dr. James David Ballard that was submitted to the ASLB in the licensing proceeding (Accession No. ML18257A335). Dr. Ballard first notes the geographic dispersion of the nuclear reactors that would be the sources of the waste being transported to the Holtec facility. He states that a generic analysis fails to account for the risk complexity such a massive supply infrastructure implies. He therefore concludes:

This lack of the ability to perceive systematic risk complexity for a proposed interim storage facility may well under estimate the impacts of a radiological event involving these materials. Thus, a programmatic Environmental Impact Statement (EIS) should be initiated prior to the proposed action and that addresses the totality of the shipment infrastructure that will supply this new storage. Failure to supply a programmatic EIS (transportation EIS?) prior to the proposal storage phase (a separate EIS/EA) has left Holtec vulnerable to liability in the event of a radiological emergency at the storage site, but perhaps also while in-transit wastes are moving towards that destination. The Holtec proposal is currently insufficient to address the transportation issue for waste movements to the proposed CISF on any level.

Dr. Ballard goes on to explain why shipments of radioactive waste would be attractive targets for terrorist groups or others who would attack the shipments. Rather than subject the radioactive waste to these risks, Dr. Ballard suggests that a proactive substitute would be to store the waste in place at the reactor sites using dry storage technologies, e.g., hardened onsite storage (HOSS).

A recent technical report by the Nuclear Waste Technical Review Board, *Preparing for Nuclear Waste Transportation* (2019), is also significant. That report identifies 18 technical issues regarding transportation of nuclear waste that are not addressed or discussed in the DEIS. The critical determination from that report is as follows:

DOE has examined the trend in SNF dry storage at nuclear power plant sites (Williams 2013). On average, during 2004-2013, the nuclear utilities discharged SNF that has higher burnups (approximately 45 Gwd/MTU) than previously discharged SNF and, therefore, is thermally hotter and more radioactive. In addition, the nuclear utilities are loading SNF into larger dry-storage casks and canisters to improve operational efficiency and reduce cost. The largest of these canisters now holds as many as 37 PWR assemblies or 89 BWR assemblies. As a result, these larger casks and canisters are hotter than earlier dry-storage casks and canisters; therefore, they will take longer to cool sufficiently to meet transportation requirements.

DOE estimated that if SNF was repackaged from large casks and canisters to smaller standardized canisters (and using standard assumptions about the operating lifetime of the U.S. fleet of nuclear reactors), DOE could remove SNF from all nuclear power plant sites by approximately 2070. However, if no repackaging occurs, some of the largest SNF canisters storing the hottest SNF would not be cool enough to meet the transportation requirements until approximately 2100 (Williams 2013).

NWTRB report, p. 77. In other words, assuming a license is issued to Holtec in 2021, there is no likely scenario under which the waste destined for the Holtec CIS facility could be transported to the facility in the 20-year time frame proposed by Holtec, or even within the initial 40-year licensing period. These facts are not discussed or addressed in the sections of the ER cited above.

Robert Alvarez, an expert on nuclear waste, has reviewed the NWTRB report and has issued a declaration discussing the implications of the report as they relate to the Holtec project. Mr. Alvarez's declaration and his CV are Accession No. ML19297D144. Mr. Alvarez begins with four conclusions:

- With about a third of the world's spent power reactor fuel (SNF), the magnitude of long-distance transport of spent nuclear fuel and high-level radioactive waste in the United States is unprecedented.
- Concerns surrounding the integrity of high-burnup spent nuclear fuel in dry storage are not resolved and may result in prolonged onsite storage for several decades.
- There is a substantial lack of data regarding potential damage of SNF during transport.
- Repackaging SNF for transport and disposal is an important missing element that has a major impact on the timing and implementation of a national SNF transportation program.

With respect to Mr. Alvarez's first conclusion, the NWTRB report, at p. 37, notes that although there has been some experience transporting small quantities of nuclear waste for long distances, there is no experience with transporting large quantities (thousands of metric tons) of waste. As the NWTRB said, "However, transporting large quantities of SNF and HLW has not been done and will require significant planning and coordination." NWTRB report, p. xxii. Thus, transportation of the large quantity of waste contemplated by Holtec would be unprecedented and there is no assurance at this point that transportation of that quantity of waste could be done safely in the time period that would allow the waste to be transported on the schedule proposed by Holtec. As Mr. Alvarez points out in his declaration, for example, new transportation casks will have to be developed for licensing, a process that would take at least 10 years, and that inspection equipment and procedures will have to be developed to inspect the containers storing the waste now in dry storage. The DEIS does not address these issues.

Mr. Alvarez's second point concerns problems involving transportation of high burnup fuel. The NWTRB report, p. 77-79, discusses the issue of transporting high burnup fuel. The report states:

A simple (and expected) example of a condition outside the limits of a CoC is a case in which the SNF cask or canister has not been cooled for the minimum time required by the CoC. In this case, the licensee will allow more time for the SNF to cool before attempting to transport the cask or canister holding the SNF. However, this approach will lead to delays in the removal of SNF from some nuclear power plant sites,

The NWTRB report then goes on to discuss the minimum burnup versus the initial enrichment, referred to as the loading curve. The report points out that the loading curve and what is called the burnup credit have not been addressed for newer, larger-capacity dry storage casks and canisters. This issue must be addressed before the waste can be transported to a CIS.

Specifically relevant to the Holtec project, the NWTRB report uses the Holtec HI-STAR 100 transportation cask as an example. The accompanying graph shows that many of the Holtec canister assemblies are not acceptable for transportation. The report concludes that the conditions that do not meet the requirements for transportation must be addressed and corrected before the waste can be transported.

Mr. Alvarez also addresses the problem of repackaging in order to transport high burnup fuel. As noted at the outset, if the fuel is repackaged into smaller containers the nuclear waste would not be removed from the nuclear power plant sites until approximately 2070. NWTRB report, p. 77. And repackaging the waste will be expensive and time-consuming. As Mr. Alvarez says in his declaration, a repackaging facility would have to be developed and constructed, which would cost hundreds of millions of dollars or more and take decades to complete. Development of such a facility would also require

significant advance planning. The additional cost and delay to accommodate repackaging would not allow the waste to be transported to the Holtec CIS facility on the schedule contemplated by Holtec.

There does not appear to be any discussion of issues related to the transportation of high burnup fuel in the DEIS. The DEIS is therefore inadequate regarding transportation issues.

Mr. Alvarez's third conclusion is that there is a substantial lack of data regarding potential damage to the nuclear waste during transport. The NWTRB report, p. 38, explains, for example:

No comprehensive examinations of U.S. commercial SNF have been conducted following transportation to determine if the SNF was damaged in transit. However, SNF handling, loading, and shipping operations can subject the SNF assemblies to vibration loads, small impulse loads (e.g., bumps in the road), and, in severe conditions such as an accident, strong shock loads. How these vibrations and impulse loads may affect the SNF and its ability to meet transportation requirements are not fully understood, but they are the subject of ongoing DOE research.

Another issue related to damage of the waste during shipment is the condition of the infrastructure over which the waste would be transported. The report, p.44, states that "at some sites, significant work will have to be done to bring the transportation infrastructure back into good working order." Addressing this problem will also take time and money, further impacting the schedule for transporting the waste to the Holtec CIS.

The DEIS has not addressed this undetermined issue. Transportation of the nuclear waste to the Holtec facility should not be licensed until the implications of possible damage to the waste during shipment is adequately determined. The DEIS is inadequate in not addressing this issue.

In light of the new information set forth above, another area of deficiency in the DEIS must be discussed. An EIS must describe any mitigation measures that would avoid or minimize the environmental impacts of the project. The U.S. Supreme Court has found that agencies have an obligation to discuss the extent to which adverse impacts may be avoided, along with those impacts that cannot. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 109 S.Ct. 183 (1989). The court added that inclusion of a reasonably complete discussion of possible mitigation measures serves NEPA's "action forcing" function.

CEQ's longstanding NEPA regulations define "mitigation" as measures to avoid, minimize, rectify, reduce, or compensate for environmental impacts. 40 C.F.R. § 1508.20. The mitigation measures discussed must cover the range of impacts of the proposal. The measures must include such things as design alternatives that would decrease pollution

emissions, construction impacts, and other possible efforts. CEQ, “Forty Most Asked Questions Concerning CEQ’s National Environmental Policy Act Regulations,” March 1981, Questions 19a and b.

In this case mitigation would include repackaging the waste into smaller containers, particularly with respect to high burnup fuel, as discussed above. As Mr. Alvarez explained in his declaration, the nuclear fuel cladding under high burnup conditions may not be relied upon as a primary barrier to prevent the escape of radioactivity, especially during prolonged dry storage. More specifically, Mr. Alvarez raised the following concerns:

- fuel cladding thickness is reduced to form a hydrogen-based rust of the zirconium metal which can cause the cladding to become brittle and fail;
- increased pressure between the pellets and the inner wall of the cladding causes the cladding to thin and elongate;
- high burnup fuel temperatures make it more vulnerable to damage from handling and transport; removal from the pool, vacuum drying and emplacement in canisters can result in cladding failure.

These are impacts that must be avoided or minimized by repackaging the fuel in smaller containers. Such mitigation measures will, as set forth in the NWTRB report, require extra cost and delay in transporting the waste to the Holtec CIS facility. The NWTRB report, p. 69, also discusses mitigation measures in undertaking the repackaging process. The report says, “Regardless of the repackaging capabilities developed for use, the impacts of repackaging on the SNF assemblies will have to be evaluated and factored into the future transportation, interim storage, and disposal of the SNF.” The DEIS is deficient in not discussing these mitigation issues.

The impacts of transportation of the nuclear waste are an integral part of the licensing process for the Holtec CIS facility. The recently released NWTRB report raises significant issues regarding transportation of nuclear waste that must be adequately addressed in the DEIS, but are not.

Alternatives

An EIS must determine and assess all reasonable alternatives to the proposed action. The importance of an adequate discussion of alternatives is highlighted by the statement in the NEPA regulations that the alternatives analysis is the “heart of the environmental impact statement.” 40 C.F.R. § 1502.14. NEPA demands that the environmental review “rigorously explore and objectively evaluate all reasonable alternatives.” 40 C.F.R. § 1502.14(a).

The DEIS eliminates from consideration an alternative to the proposed CIS facility. An EIS is inadequate if the agency rejects a viable but unexamined alternative. *Japanese Vill. LLC v. Fed. Transit Admin.*, 843 F.3d 445, 463 (9th Cir. 2016). The viable alternative rejected in the Holtec DEIS is Hardend Onsite Storage Systems (HOSS). The DEIS correctly describes HOSS as: (1) constructing reinforced concrete and steel structures around each waste container; (2) protecting each of these structures with mounds of concrete, steel, and gravel; and (3) spacing the structures over a larger area. A more detailed description of HOSS appears in a report by Dr. Gordon Thompson, *Robust Storage of Spent Nuclear Fuel: A Neglected Issue of Homeland Security* (2003):

An array of vertical-axis dry-storage modules at a center-to-center spacing of perhaps 25 meters. Each module would be on a concrete pad slightly above ground level, and would be surrounded by a concentric tube surmounted by a cap, both being made of steel and concrete. This tube would be backed up by a conical mound made of earth, gravel and rocks. Further structural support would be provided by triangular panels within the mound, buttressing the tube. The various structural components would be tied together with steel rods. Air channels would be provided, to allow cooling of the dry-storage module. These channels would be inclined, to prevent pooling of jet fuel, and would be configured to preclude line-of-sight access to the dry-storage module.

Dr. Thompson's report documents the benefits of HOSS. In addition, Dr. Thompson explains why an away-from-reactor storage site would be less safe than on-site storage:

However, three factors affect the overall risk of interim storage. First, shipment to an away-from-reactor ISFSI would increase the overall transport risk, because fuel would be shipped twice, first from the reactor site to the ISFSI, and then from the ISFSI to the ultimate repository. Second, an away-from-reactor ISFSI would hold a comparatively large inventory of spent fuel, creating a potentially attractive target for an enemy. Third, there is a risk that a large, away-from-reactor ISFSI would become, by default, a permanent repository, despite having no long-term capability. These three factors must be considered in minimizing the overall risk of interim storage.

The DEIS rejects HOSS as an alternative, first because it is allegedly a generalized concept and the NRC has not reviewed detailed plans. But HOSS has been a well-described plan since at least Dr. Thompson's report in 2003. Dr. Thompson's report contains a detailed description, including a detailed schematic drawing, of a HOSS installation. Based on Dr. Thompson's description, HOSS is not a complex idea. It consists of a dry storage module placed on a concrete pad, surrounded by a conical mound of dirt, gravel and rocks, and sealed on the top with a steel or concrete cap. So the NRC has had plenty of time and ability to review and analyze the practicality of HOSS. Furthermore, Sierra Club presented HOSS as an alternative that should be considered in its petition to intervene filed in September of 2018. If the NRC claims it has not reviewed

HOSS and it is therefore not a viable alternative, that is a problem of the NRC's own making. NEPA requires the agency to make a thorough review of alternatives. In this case, that would mean the NRC should undertake a review of HOSS. An alternative can be rejected only if the agency can give plausible reasons for rejection. *All Indian Pueblo Council v. United States*, 975 F.2d 1437 (10th Cir. 1992).

The DEIS also claims HOSS is rejected as an alternative because it would not satisfy the purpose and need for the project. In other words, only a CIS facility will satisfy the purpose and need as expressed in the DEIS. But the purpose and need statement cannot be defined so narrowly that only one alternative will satisfy it. *Citizens Against Burlington, Inc. v. Busey*, 938 F.2d 190 (D.C. Cir. 1991). The real purpose and need is to accommodate long-term storage of nuclear waste. HOSS can accomplish that purpose. As the DEIS itself says, at p. 1-2, "The purpose of the proposed Holtec CISF is to provide an option for storing SNF from nuclear power reactors before a permanent repository is available." There is nothing in that statement that demands that the storage be away from the reactor site.

The DEIS then describes the alleged need for the project in the following cryptic terms:

The proposed CISF is needed to provide away-from-reactor SNF storage capacity that would allow SNF to be transferred from existing reactor sites and stored for the 40-year license term before a permanent repository is available. Additional away-from-reactor storage capacity is needed, in particular, to provide the option for away-from-reactor storage so that stored SNF at decommissioned reactor sites may be removed so the land at these sites is available for other uses.

As noted in the previous section of these comments on purpose and need:

We have held that blindly adopting the applicant's goals is a "losing proposition" because it does not allow for the full consideration of alternatives required by NEPA. NEPA requires an agency to "exercise a degree of skepticism in dealing with self-serving statements from a prime beneficiary of the project" and to look at the general goal of the project rather than only those alternatives by which a particular applicant can reach its own specific goals.

ELPC v. NRC, 470 F.3d 676, 683 (7th Cir. 2006), quoting *Simmons v. Corps. of Engineers*, 120 F.3d 664, 666 (7th Cir. 1997).

As explained previously, the goal of interim storage is to safely store nuclear waste until, if ever, a permanent repository is developed. To that end, HOSS is a reasonable alternative that must be evaluated.

Geology and Groundwater

As noted in the DEIS, p. 3-13 – 3-14, the area under review has a history of collapse due to underlying karst geology. In dismissing the implications of the fragile geology of the area, the DEIS relies on statements from a 2007 report produced by ELEA, the entity that is promoting the Holtec project and owns the site, and a report by GEI, a consulting firm hired by Holtec. On the basis of that bias, these reports should be treated with skepticism. Likewise, the description of the groundwater resources are based on the ELEA and GEI reports and are subject to the same skepticism. More importantly, the New Mexico Environment Department submitted extensive comments on a working draft of the EIS on December 16, 2019. The NMED comments were as follows:

1. The DEIS insufficiently characterizes the near-surface Quarternary alluvial deposits, upon and within the proposed CIS project that will be constructed and where any initial subsurface environmental degradation would occur. NMED states that this information is critical for establishing a thorough and appropriate groundwater monitoring and protection program. There is also a possibility that the base of the canister system would be situated in saturated alluvial materials.

2. The DEIS insufficiently characterizes the Chinle Formation situated within the upper portion of the Dockum Group and the probable importance of the Formation in monitoring the environmental impact of the CIS facility. It is important to understand how the tip of the Chinle Formation is oriented so that there is an understanding of how accumulated water at that interface might move. It is also important to understand the fracture nature of this Formation.

3. The DEIS should elaborate on the fact that, instead of appropriate and favorable geological and hydrological conditions, the siting of the Holtec CIS facility was selected because of private ownership of the land, equal distance between the cities of Hobbs and Carlsbad, proximity to U.S. Highway 62/180, and availability of federal lands for expansion.

4. The DEIS insufficiently addresses, mischaracterizes, and is self-contradictory regarding the potential for groundwater recharge via hydrologic communication between the ground surface, ephemeral circular freshwater wetland depressions (i.e., dolines), deep and shallow subsurface geology, and perched and/or isolated groundwaters that are temporally or spatially present. NMED noted that the DEIS relies on a 1985 report, and that more modern, technically sophisticated, and site specific studies provide a better source of information. The NMED comments go on to explain in detail why the DEIS fails to adequately describe the nature and extent of the karst geology in the area of the Holtec site.

None of these comments by NMED appear to be addressed in the DEIS.

During the licensing proceeding Sierra Club presented the report of George Rice, a professional hydrologist. Mr. Rice questioned Holtec's assertion that there is no shallow

groundwater at the CIS site. Only one test well was drilled in 2007 at the interface of the alluvium and the Dockum geologic formation. That well has not been checked for the presence of water since 2007. This is significant since shallow aquifers may be intermittently saturated. Furthermore, Mr. Rice explained that one well is not sufficient to determine whether shallow groundwater exists at the site. Although other wells have been installed, they have not been placed in the appropriate depth to determine the presence of shallow groundwater.

Mr. Rice also explained why saturated conditions were not encountered in the alluvium, but there may still be shallow groundwater. Drilling with air will often dry the cuttings as they are brought to the surface and water may drain from the cuttings as they are brought to the surface. Mr. Rice also notes that the caliche and alluvium at the Holtec site are not dry. Water contents were measured in samples that came from 10-30 feet below land surface. The water contents ranged from 5-16 percent by weight. This indicates that precipitation is infiltrating from land surface and moving toward the alluvium/Dockum interface.

Mr. Rice noted that two brine disposal facilities once operated in the northeast portion of the Holtec site. A water sample was collected in 2007 from one of the springs immediately south of the Holtec site. That sample contained brine. This is important because brine could cause corrosion of the containers holding the radioactive waste and cause leaks in the containers. Mr. Rice further noted, however, Holtec did not determine whether the springs/seeps that were flowing in 2007 continue to flow; whether the brine is moving along parched zones in the alluvial materials or along the alluvium/Dockum interface; and whether the brine could come into contact with the storage containers. The DEIS must evaluate the nature and location of the brine as described by Mr. Rice.

Geologic boring logs have identified fractured rock beneath the area of the Holtec site. Fractures could rapidly convey contaminants to underlying groundwater. Mr. Rice confirmed that the presence of fractured rock in the area of the Holtec site. Some portions of the Chinle and Santa Rosa formations are described as highly fractured.

None of the issues presented by Mr. Rice are addressed in the DEIS.

Earthquake Potential

The DEIS, p. 3-24, claims that a 2018 study by Snee and Zoback from Stanford University concluded that existing faults located in the western Delaware Basin where the proposed project area is located are unlikely (<10 percent probability) to slip in response to fluid-pressure increase. There is nothing in the text of the Stanford study, however, that makes that statement. What the report actually says is:

It should be noted that where rapid stress rotations are observed in the Delaware Basin are areas with low values of A_{ϕ} (indicative of relatively small differences

between the horizontal stresses) and elevated pore pressure . . . , making it possible for relatively minor stress perturbations to cause significant changes in stress orientation.

Furthermore, the Holtec site appears to be in the central to eastern portion of the Delaware Basin, not the western portion as alleged in the DEIS.

It is also worth noting that the DEIS primarily relies for its dismissal of earthquake potential on material supplied by Holtec. The DEIS should make an effort to rely on independent information, rather than material that is likely skewed in favor of the project applicant. That is the only way the agency can take a “hard look” as required by NEPA.

The discussion on page 3-25 of the DEIS states that there is a 10% chance of an earthquake in the area of the Holtec site in the next 50 years. In support of this statement reference is made to a USGS map that the caption says has been modified. But it does not say how the map was modified. In any event, a 10% chance of an earthquake that could release highly radioactive waste is a situation that should be avoided, rather than minimized, as the DEIS does. Moreover, the Holtec facility is planned to be in operation for at least 60-120 years, not just the 50 years referred to in the DEIS.

Finally, the DEIS relies on historic earthquake activity. What this approach misses is the earthquake activity more recently caused by fracking for oil and gas. That was the point of the Stanford study. Even the oil and gas industry is concerned about the dangers of fracking as it relates to the safety of the Holtec project. On July 30, 2018, Fasken Oil and Ranch, Ltd. and the PBLRO Coalition submitted scoping comments as part of the NEPA process. Fasken is an oil and gas operator with interests adjacent to the Holtec site. The PBLRO Coalition is a coalition of landowners, ranchers, and oil and gas operators from throughout Texas, New Mexico and the Permian Basin formed to respond to the Holtec project. The significant portion of that letter reads as follows:

The proposed site sits on top of and adjacent to oil and gas minerals to be developed by means of fracture stimulation techniques. Currently, drilling techniques used to extract minerals in the Permian Basin involve drilling horizontally into deep underground formations up to two miles beneath the earth’s surface. High pressure fluids are pumped into the wells, in some cases exceeding twelve thousand pounds per square inch. This pressure is power enough to fracture the surrounding rock thus releasing the oil and gas. The pressure creates fissures and cracks beneath the surface. And, at this time, there are oil and gas operators testing a new technique of simultaneously drilling and fracturing up to 49 horizontal wellbores in a single section of land. Either the traditional or new and unproven drilling technique, involving more than 20,000,000 bbls of water and sand, could conceivably be utilized to inject into and withdraw from the rock formation beneath and surrounding the Holtec site. Hydraulic fracturing beneath

and around Holtec should give the NRC pause and is sufficient reason not to proceed.

In discussing the seismic impacts, the DEIS at p. 4-26 states that the operation of the Holtec facility would not cause seismic impacts. That is not the point. The issue is the likelihood of earthquakes causing impacts to the Holtec facility. The DEIS fails to address this issue, except to dismiss it based on the faulty and incomplete assessment described above. NEPA requires more than that.

Environmental Justice

Executive Order 12898, 3 C.F.R. § 859, requires the incorporation of environmental justice concerns into all federal agency actions. The NRC has agreed to be bound by that order. *In Re: Louisiana Energy Services LP* (Claiborne Enrichment Center, 45 NRC 367 (1997)). Thus, environmental justice is an integral part of the NEPA process in NRC licensing proceedings.

The official guidance from the Council on Environmental Quality on implementing the Executive Order notes four important ways agencies should consider environmental justice under NEPA:

- Each federal agency should analyze the environmental effects, including human health, economic, and social effects of Federal actions, including effects on minority populations, low-income populations, and Indian tribes, when such analysis is required by NEPA.

- Mitigation measures identified as part of an environmental assessment (EA), a finding of no significant impact (FONSI), an environmental impact statement (EIS), or a record of decision (ROD), should, wherever feasible, address significant and adverse environmental effects of proposed federal actions on minority populations, low-income populations, and Indian tribes.

- Each Federal agency must provide opportunities for effective community participation in the NEPA process, including identifying potential effects and mitigation measures in consultation with affected communities and improving the accessibility of public meetings, crucial documents, and notices.

- Review of NEPA compliance . . . must ensure that the lead agency preparing NEPA analyses and documentation has appropriately analyzed environmental effects on minority population, low-income populations, or Indian tribes, including human health, social, and economic effects.

The CEQ guidance further lists six principles that must guide the review of environmental justice issues:

- Agencies should consider the composition of the affected area, to determine whether minority populations, low-income populations, or Indian tribes are present in the area affected by the proposed action, and if so, whether there may be disproportionately high and adverse human health or environmental effects on minority populations, low-income populations, or Indian tribes.

- Agencies should consider relevant public health data and industry data concerning the potential for multiple or cumulative exposure to human health or environmental hazards in the affected population and historical patterns of exposure to environmental hazards, to the extent such information is reasonably available.

- Agencies should recognize the interrelated cultural, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects of the proposed agency action. These factors should include the physical sensitivity of the community or population to particular impacts; the effect of any disruption on the community structure associated with the proposed action; and the nature and degree of impact on the physical and social structure of the community.

- Agencies should develop effective public participation strategies. This includes eliminating barriers to meaningful participation and should incorporate active outreach to affected groups.

- Agencies should assure meaningful community representation in the process. Agencies should ensure complete representation of the community as a whole.

- Agencies should seek tribal representation.

With respect to this case, the DEIS used census block groups to determine the extent of minority and low-income populations in the relevant area. Out of 115 block groups, 64 have minority populations that meet environmental justice criteria and 10 block groups meet the criteria for low-income groups. DEIS, p. 4-82. But that is essentially the extent of the environmental justice analysis in the DEIS. That is only one of the six principles set out in the CEQ guidance. There is no indication that the NRC considered relevant public health and industry data; recognized the interrelated cultural, physical, social, occupational, historical, or economic factors that may amplify the natural and physical environmental effects on vulnerable populations; developed effective public participation strategies; assured meaningful community representation in the process; or sought tribal representation.

A declaration by Dr. Myrriah Gomez, a professor at the University of New Mexico, was submitted during the licensing proceeding in this case before the Atomic Safety and Licensing Board. Dr. Gomez declared that the Holtec project “is an example of environmental racism based on studies defining and documenting environmental

racism” She bases this statement on the exclusion of people of color from the decision-making processes concerning the Holtec facility. She specifically points to how groups, boards, commissions, and regulations are comprised and facilitated. To put a finer point on it, Dr. Gomez states:

A closer analysis of the proposed Holtec International CIS facility reveals that the economic appeal of the site was created by the “existence of a racial hierarchy,” one that “reproduced racial inequality, and undermines the well-being of that community.” . . . [A]n important aspect of environmental racism is the absence of people of color from decision-making boards, commissions, and regulatory bodies. That being said, I highlight the point that all eight voting members of the Eddy-Lea Energy Alliance (ELEA) in addition to its three administrative staff members are all ethnically White. It is racist that Hispanics/Latinos, who comprise will over 50% of Eddy-Lea Counties, are disproportionately represented. In fact, they are not represented at all. Whereas siting is a critical factor in this case, we have to analyze the complicated definition(s) of race, which suggests, first and foremost, an unfair hierarchy of power. To do this will allow us to more holistically examine the environmental racism at play in the proposal. Thus, the proposal is both overt discrimination (siting) and covert discrimination (power structures).

The DEIS does not address the points presented by Dr. Gomez. The very essence of environmental justice (or injustice) is the lack of political power by minorities and low-income people.

Another important factor in environmental justice to which Dr. Gomez alludes is the need to base siting decisions on the impacts to minority and low-income communities. In this case Holtec’s site selection process fails to account for alternative sites for the CIS facility. The DEIS was required to “rigorously explore . . . all reasonable alternatives.” 40 C.F.R. § 1502.14(a). Holtec admitted in its environmental report that there was, in fact, no site selection process for this project, other than a cursory review of a report on a different site selection process. That earlier report, on the GNEP nuclear facility, was conducted in 2007 by a consortium of county and city officials called the Eddy Lea Energy Alliance (ELEA). It is significant that ELEA owns the land on which the GNEP, and now the Holtec CIS, would be located. The conflict of interest and self-serving bias in any selection of the ELEA site is obvious. So, instead of an independent review of several potential sites for the Holtec facility, Holtec relied on a self-serving report for a different project in 2007 without any consideration of alternative sites. The 2007 ELEA report, in turn, contained no discussion of any environmental justice concerns. The DEIS does not address the defective and inadequate siting process used to designate the proposed Holtec site.

The CEQ guidance also requires an EIS to explore and evaluate measures to mitigate environmental justice impacts. The DEIS in this case seeks to evade that

requirement by relying on the false assumption that no radioactive material can be released from the containers stored at the Holtec facility. Previous comments herein have explained why this is a false assumption. The DEIS is therefore defective in not assessing measures to mitigate the impact to minority and low-income communities.

Ecological Impacts

The DEIS purports to describe and evaluate the impacts to wildlife in the area of the Holtec facility. The DEIS, p. 3-49, notes that the Holtec site is located within the Central Flyway migratory bird path, and migratory shorebirds use playa lakes in this region. One of the playa lakes, Laguna Gatuna, is partially on the Holtec site. The DEIS also notes that the proposed CIS project area is surrounded by BLM-managed land that is under consideration as an area of critical environmental concern, due to the importance that salt playas are to local plant and animal communities. It is obvious that if the Holtec site is surrounded by ecologically significant land, the Holtec site is also ecologically significant. However, the DEIS carefully ignores this fact.

Three migratory bird species of conservation concern that could be present in the proposed Holtec site are the burrowing owl, Cassin's sparrow, and lark bunting. DEIS, p. 3-51. Likewise, reptiles and amphibians that could occur in the area of the CIS are the Texas horned lizard, greater earless lizard, and the dunes sagebrush lizard. DEIS, p. 3-51 – 3-52. The DEIS then tries to minimize this statement by referring to ecological surveys conducted in 2007 and 2016. The 2007 survey was conducted by ELEA, the entity that owns the Holtec site and is the primary supporter of the project. The 2007 survey was conducted to support the siting of a radioactive waste processing facility on the site. This survey should be viewed with skepticism. First of all, ELEA paid for this survey. ELEA is the entity that for years has promoted some sort of nuclear project at the Holtec site. There is no indication in the survey as to what professional entity prepared the report or conducted the survey. The DEIS, p. 3-42, now claims that Metric Corporation conducted the surveys in 2007, even though Metric Corporation is not mentioned in the report.

The 2016 survey, conducted by Tetra Tech, appears to have been conducted on one day and, with respect to animals, it was based on casual observation, not a detailed survey. That is not a valid biological assessment. It should be axiomatic that an endangered species will not be immediately observed because there are so few individuals. That is why it is endangered. Furthermore, the 2016 survey was conducted in October, a time of year when the reptiles, cold-blooded creatures, would be hibernating. So the 2016 survey is not a credible basis for concluding that the reptiles, especially the dunes sagebrush lizard (also called sand dune lizard), are not present at the Holtec site.

With respect to the dunes sagebrush lizard, in particular, a comparison of the 2007 ELEA report and the 2016 survey generates further skepticism. The 2007 report, lists the sand dune lizard as likely to be present at the site and the vicinity. And this is a report

referred to in the DEIS to contend that the dunes sagebrush lizard is not present at the Holtec site, simply because it was not seen in the 2007 survey or the 2016 survey.

The DEIS is ultimately forced to concede that the 2007 and 2016 reports are deficient. The DEIS, p. 4-44 – 4-45, states:

NMDGF [New Mexico Department of Game and Fish] recommends that Holtec conduct a more thorough biological survey of the project footprint and a 0.8-km [0.5-mi] buffer to better assess the range of wildlife species that may occur within the proposed project area. . . NMDGF also suggests that Holtec consult the Baseline Wildlife Study Guidelines for conducting wildlife presence and diversity inventories This guideline presents a matrix of published survey methods and protocols for specific habitats and species. The NRC staff reviewed this guideline and determined that the ecological surveys provided in Holtec’s license application do not meet the NMDGF guidelines. For example, the frequency and timing of the surveys conducted for the proposed project do not meet the NMDGF recommended 1-year survey period. Further, the license application ER did not provide the location of raptor nests located within the project area and a 1.6-km [1-mi] buffer around the proposed project area and did not include live-trapping and capture of reptiles and amphibians. The NRC staff supports NMDGF’s recommendation for a more thorough biological survey of the project footprint and a 0.8-km [0.5-mi] buffer be conducted for the proposed CISF project. The NRC further recommends that Holtec consult with NMDGF to develop an ecological baseline survey plan.

The DEIS, p. 4-47 – 4-48, concludes, “Should Holtec choose to follow the NRC staff recommendations during construction . . . , effects on ecological resources would continue to be reduced and would remain SMALL for wildlife and MODERATE for vegetative communities.” But what will ensure that Holtec will follow those recommendations? Who will enforce Holtec’s compliance? Who will evaluate whether Holtec has complied with the recommendations? Until the DEIS addresses those questions, the DEIS has not thoroughly evaluated the environmental impacts to wildlife and plants.

Public Health and Safety

The Commission may not grant a license if “the issuance of a license to [the applicant] would be inimical to . . . the health and safety of the public.” 42 U.S.C. § 2133(d). The primary risk to public health and safety from the Holtec project is the release of radioactivity from the material being transported to and stored at the Holtec site.

The DEIS purports to discuss public health and safety at pages 4-89 – 4-92 and 4-100 – 4-103. The first failing in this discussion is that the NRC relies uncritically on

Holtec's assurances that its processes are safe or that Holtec will take steps to prevent or mitigate risks. It does not appear that the NRC has undertaken any independent steps to assure the protection of the public.

Without any supporting evidence, the DEIS, p. 4-89, claims that Holtec will monitor and control occupational and public radiation exposures by following a radiation protection program that addresses NRC safety requirements. There is no assurance presented in the DEIS that NRC will be willing or able to enforce those requirements on Holtec. The discussion in the EIS goes on to use phrases like "Holtec estimated occupational radiation exposures," "Holtec provided additional estimates," "NRC considered Holtec's reported duration of these handling operations," "Holtec provided dose estimates," "Holtec assumes," and "Holtec estimated." The DEIS concluded, p. 4-92, by saying, "The NRC staff reviewed Holtec's public dose calculation methods, assumptions, and parameters and found them to be technically acceptable." But what does "technically acceptable" mean? That seems to be a less than resounding statement of confidence in Holtec's assurances of safety.

The second failing in the DEIS discussion of public health and safety is the absence of any analysis of the impact on the safety of the waste canisters due to high burnup fuel. The impacts of high burnup fuel were discussed previously in these comments related to transportation risks and the integrity of the nuclear waste canisters. Members of the public are concerned about radioactive exposure and the DEIS does nothing to assuage that concern.

Cost-Benefit Analysis Related to Radiation Exposure

In a recent policy statement, SECY-20-0074, *Valuing Nonfatal Cancer Risks in Cost-Benefit Analysis*, the NRC states, "The staff plans to adopt a monetized quality-adjusted life-year approach that would allow analysis to value cancer types individually because quality-adjusted life-year values exist and are available to many distinct forms of cancer and their various stages." The policy makes clear that this cost-benefit analysis for nonfatal cancer risk applies to "environmental analyses."

The DEIS purports to address cost-benefit analysis in Chapter 8. However, there is no discussion of nonfatal cancer risk in that analysis. This is a serious omission in the DEIS and violates both NEPA and NRC policy.

President Trump's Executive Order

On June 4, 2020, President Trump issued an "Executive Order on Accelerating the Nation's Economic Recovery from the COVID-19 Emergency by Expediting Infrastructure Investments and Other Activities." In the Executive Order, § 6(b), the Trump Administration, in order "to facilitate the Nation's economic recovery" from the COVID-19 pandemic, directed all Federal agencies, including the NRC, to "use, to the

fullest extent possible and consistent with applicable law, emergency procedures, statutory exemptions, categorical exclusions, analyses that have already been completed, and concise and focused analyses, consistent with NEPA, CEQ's NEPA regulations, and agencies' NEPA procedures." The NRC should not treat the Executive Order as a reason in this case to curtail or limit in any way a thorough, deliberative inquiry under NEPA as required by law and existing regulations.

The NRC's motto is "Protecting People and the Environment." This goal requires a thorough NEPA review, not the "shortcuts" set forth in the Executive Order.

Following the Executive Order, the Council on Environmental Quality (CEQ) has issued new rules interpreting NEPA. The new rules were issued on July 16, 2020, and take effect on September 14, 2020. The new rules make significant changes to the existing rules as follows:

1. The rule only requires agencies to consider environmental information and "inform" the public regarding an agency decision.

2. The rule deleted language that NEPA should be implemented "to the fullest extent possible." Section 102 of NEPA clearly states that agencies must carry on NEPA's mandates "to the fullest extent possible." So the new rule directly violates NEPA and is therefore illegal.

3. The rule prohibits agencies from imposing more stringent procedures or requirements beyond that required in the rule.

4. The rule deleted language stating that an EIS is an "action forcing" document intended to ensure NEPA's goals are "infused" into programs and activities of the Federal government.

5. The rule replaces the word "possible" in the existing rules with the word "practicable," weakening existing requirements if they are inconvenient or cumbersome.

6. The rule limits the number and nature of federal actions that are subject to NEPA. For example, the rule departs from longstanding regulatory and judicial precedent that the adjective "major" in front of "federal action" reinforces but does not have independent meaning from the qualifier "significantly."

7. The rule asserts that federal financial assistance does not qualify as a "major federal action" if the agency does not retain an undefined level of "control and responsibility" over the effects of the action, in a manner that is inconsistent with judicial precedent, creates confusion, and invites abuse by applicants.

8. The rule narrows the definition of “major federal action” even further by deleting language that defines “action” to include circumstances where an agency “fails to act” and that failure is reviewable under the APA.

9. The rule allows federal agencies to waive NEPA if other review processes are either associated with or required for the project.

10. The rule allows federal agencies to circumvent NEPA by authorizing agencies, in their discretion, to determine that other statutes or directives conflict with NEPA. However, Congress did not delegate federal agencies authority to interpret “whether compliance with NEPA would clearly and fundamentally conflict with the requirements of another statute,” or “whether compliance with NEPA would be inconsistent with Congressional intent expressed in another statute.” This is also inconsistent with NEPA’s statutory directive to apply the law to “the fullest extent possible,” as well as judicial precedent prohibiting such a narrow reading of NEPA.

11. The rule exempts certain categories of federal actions from the definition of “major federal action,” including actions that have long been understood to trigger NEPA review, such as ‘loans, loan guarantees and other forms of financial assistance.’”

12. The rule eliminates language from the existing rules that programmatic EISs are sometimes required and language that they are specifically required under certain circumstances.

13. The rule eviscerates the regulatory definition of “significance,” which will reduce the number of actions deemed significant enough to trigger the preparation of an EIS. Specifically, the rule eliminates the consideration of critical concerns like context, cumulative effects, scientific controversy, and effects to listed species from the evaluation of a federal action’s significance.

14. The rule no longer prohibits the “piecemealing” or segmentation of agency actions by breaking them into individually less significant or relatively minor component parts.

15. The rule substantially expands the scope and application of “categorical exclusions,” normally a mechanism to simplify NEPA compliance for actions that do not individually or cumulatively have a significant effect on the environment. Instead, the rule eliminates key factors that previously prevented the use of categorical exclusions for actions that “individually or cumulatively” may have impacts to the environment. Regardless of whether extraordinary circumstances exist, the rule allows federal agencies, in their sole discretion, to use a categorical exclusion if there are “circumstances that lessen the impacts or other conditions sufficient to avoid significant effects,” but does not require the utilization of these other “circumstances” or “conditions.” The rule allows agencies to apply a different agency’s categorical exclusion, a sweeping expansion of

what should be a narrow exception tailored to a specific federal agency and its mission-specific undertakings.

16. The rule authorizes multiple exceptions to the general rule that action may not be taken to advance a proposal pending finalization of the NEPA process, thereby allowing agencies and private applicants to commit resources before a decision is made (including without public comment), and “steamroll” decisions before environmental analysis is complete and the information shared with the public.

17. The rule eliminates the requirement that agencies consider both “cumulative” and “indirect” effects from NEPA analysis. Indirect and cumulative effects are critical components of environmental impacts and in many cases, they are the most important issues of concern to the public and other stakeholders.

18. The rule only requires NEPA to consider effects that have a “reasonably close causal relationship” with the proposed action, ruling out effects that are “remote in time and space” or “the product of a lengthy causal chain.” Terms such as “reasonably close” and “lengthy” are not defined in the rule, inviting agencies to ignore decades of judicial and regulatory precedent interpreting the scope of review by claiming that foreseeable impacts do not have a “reasonably” close causal relationship to the proposed action. Without any standard against which to gauge these determinations, public and judicial accountability will be undermined, and efficiency in agency decision-making will not occur.

19. The rule adopts a new definition of “reasonably foreseeable” that imports tort law concepts by linking impacts to what a “person of ordinary prudence” would consider “likely.” But federal agencies using NEPA to evaluate risks and impacts are not “ordinary people.” They purport to be expert agencies applying technical analysis under standards developed over decades of experience. The new regulation will allow agencies to ignore impacts that are truly “foreseeable,” simply because they may be beyond the ken of an “ordinary” person.

20. The rule does not require federal agencies to seek out and include information regarding the adverse impacts of federal agency actions, an important departure from existing regulations. Instead, the duty to obtain information is waived if the cost of doing so is “unreasonable,” an undefined term that invites abuse and provides no standards against which to evaluate compliance.

21. The rule asserts that agencies do not need to undertake “new scientific and technical research” to inform and EIS, in contravention to decades of precedent identifying the importance of new research when needed to accomplish NEPA’s goals. Without this information, the environmental consequences of many federal actions will be unknown, contrary to the congressional intent of NEPA.

22. The rule limits the discussion of alternatives, which has always represented the “heart” of the EIS process. In fact, the rule eliminates this keystone language from the existing regulations. The rule also constrains the range of alternatives considered in an EIS, providing that federal agencies need to consider alternatives not within the jurisdiction of the lead agency, a concept contrary to precedent and governing caselaw.

23. The rule revises the definition of “purpose and need” to highlight the applicant’s preferred project purpose, diminishes the role of alternatives, and redefines “reasonable alternatives” such that alternatives focus on the needs of the applicant rather than the public and federal agency involved.

24. The rule undermines public participation in the NEPA process, even though public involvement is one of NEPA’s “twin aims.” For example, the rule eliminates a requirement to circulate a draft EIS that satisfies NEPA standards, meaning that agencies could circulate incomplete or misleading draft EISs that undercut the public’s ability to comment.

25. The rule also undermines public participation by imposing a 30-day timeline for comment of final EISs, even in instances where there are changes in the project considered in a draft EIS, with no discretion for extensions of the comment period.

26. The rule further undermines public participation by eliminating a requirement in the current regulations that EISs be available for 15 days before a public hearing, allowing agencies to schedule hearings without allowing the public meaningful time to review EISs prior to such a hearing.

27. The rule imposes obligations on the public to provide technically specific and detailed comments on an agency action, but many commenters have useful environmental, cultural, social, or other knowledge that should be brought to bear in agency decision-making, but lack the technical knowledge to express that information consistent with the undefined requirements of the rule. Commenters must not only provide “data sources and methodologies supporting the proposed changes” to a proposed agency action, but also comment on the “economic and employment impacts” of that change, issues on which they may or may not have anything to say, or the expertise and resources to with which to comment.

28. The rule allows agencies to respond to public comments without detailed explanation and citation to authorities, makes responding to comments permissive rather than obligatory by changing “shall” to “may,” and broadens the agency’s discretion to respond to substantive public comments generically rather than specifically. Further, the rule eliminates the requirement to assess and consider comments with a statement “certifying” that the agency “considered” the comments, and in an effort to shift the burden for judicial review, imposes a “conclusive presumption” that an agency has considered all comments and other information during the comment process. Coupled

with the changes to the public's comment obligations, these changes raise the bar for the public in commenting during the NEPA process while lowering the bar for agencies to respond to those comments.

29. The rule imposes arbitrary and unworkable page and time limits, which will undermine the NEPA process and increase conflict and litigation around NEPA reviews rather than promoting efficiency. NEPA requires thorough review to ensure that the agency has taken a "hard look" at the environmental impacts. Arbitrary limits on pages and time lines will undoubtedly violate that requirement.

30. The rule redefines "final agency action" for purposes of APA review to limit reviews of NEPA compliance where no "record of decision" or formal decision document is created, for example, where an agency failed to undertake an otherwise required environmental analysis (e.g., a failure to act). This is contrary to settled precedent and serves only to unlawfully constrain judicial review.

31. The rule, contrary to judicial precedent disfavoring the practice, allows agencies to impose "bond and security" requirements on plaintiffs seeking administrative and judicial review of agency decisions. Most NEPA plaintiffs are private citizens or public interest organizations who do not have the resources to post a bond.

32. The rule states that "it is the Council's intention that the regulations . . . create no presumption that violation of NEPA is a basis for injunctive relief or for a finding of irreparable harm" and that "it is also the Council's intention that minor, nonsubstantive errors that have no effect on agency decision-making shall be considered harmless and shall not invalidate an agency action." The rule misstates current law, and impinges upon the role of the judiciary to assess whether a party has demonstrated irreparable harm and whether a legal violation is "harmless error."

The changes to the CEQ regulations described above violate the spirit and intent of NEPA. 42 U.S.C. § 4321 states:

The purposes of this Act are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

That section goes on to say:

In order to carry out the policy set forth in this Act, it is the continuing responsibility of the Federal Government to use all practicable means, consistent

with other essential considerations of national policy, to improve and coordinate Federal plans, functions, programs, and resources to the end that the Nation may -

- (1) fulfill the responsibilities of each generation as trustee of the environment for succeeding generations;
- (2) assure for all Americans safe, healthful, productive, and esthetically and culturally pleasing surroundings;
- (3) attain the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences;
- (4) preserve important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice;
- (5) achieve a balance between population and resource use which will permit high standards of living and a wide sharing of life's amenities; and
- (6) enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.

The legislative intent of NEPA, therefore, was to protect the environment and for the Council on Environmental Quality to carry out that intent. The new rule is designed to implement President Trump's order to CEQ to adopt regulations to "ensure that agencies apply NEPA in a manner that reduces unnecessary burdens and delays, including by using CEQ's authority to interpret NEPA to simplify and accelerate the NEPA review process." It is clear, therefore, that the intent of the new rule was to ignore environmental protection and to facilitate environmentally destructive projects.

The new rule has been challenged in at least three federal lawsuits. The comments here are presented to preserve a legal challenge to the NRC's use of the new rule in this case.

CONCLUSION

NEPA requires that an EIS present a thorough objective assessment of the environmental impacts of a project. An EIS should not be nothing more than an attempt to justify the proposed project. But that is exactly what this DEIS is. The NRC must start from the beginning and completely redo this EIS.

/s/ *Wallace L. Taylor*

WALLACE L. TAYLOR AT0007714

Law Offices of Wallace L. Taylor

4403 1st Ave. S.E., Suite 402

Cedar Rapids, Iowa 52402

319-366-2428;(Fax)319-366-3886

e-mail: wtaylorlaw@aol.com

ATTORNEY FOR SIERRA CLUB