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Holtec International HI-STORE Consolidated Interim Storage Facility Project

**Comment On:** NRC-2018-0052-0058

Holtec International HI-STORE Consolidated Interim Storage Facility Project

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Comment on FR Doc # 2018-10418

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## General Comment

Dear Nuclear Regulatory Commission Staff:

We have attached written comments in opposition to the subject license application Docket ID NRC-2018-0052. We are extremely strongly opposed to the subject project and the attachment outlines our reasons why. We hope that the NRC will consider these comments and reject the license application.

We would be very glad to answer any questions or comments concerning our opposition.

Sincerely,

Ed and Patty Hughs

cell: 575-680-6062 (Ed)  
cell: 575-571-2983 (Patty)

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## Attachments

18Nuclear Regulatory Commission Staff Hughs (1)

July 30, 2018

TO: Nuclear Regulatory Commission

**COMMENTS to the Nuclear Regulatory Commission (NRC) on the Holtec International's HI-STORE Consolidated Interim Storage Facility Project, by US citizens and lifelong New Mexico residents Ed and Patty Hughs; Docket ID NRC-2018-0052 [83 Federal Register 13802; Friday, March 30, 2018; <https://www.gpo.gov/fdsys/pkg/FR-2018-03-30/pdf/2018-06398.pdf> ]**

The U.S. Nuclear Regulatory Commission (NRC) received a license application from Holtec International (Holtec) requesting authorization to construct and operate a HI-STORE consolidated interim storage facility (CISF) for spent nuclear fuel at a site in Lea County, New Mexico (the proposed action). Holtec intends to initially store 500 canisters or 8680 metric tons of uranium in the CISF and eventually store up to 10,000 canisters in the CISF. If this license application is granted the NRC staff will prepare an EIS to document the potential environmental impacts from the proposed action. As part of the EIS development process, the NRC is seeking comments on the scope of its environmental review.

The Nuclear Regulatory Commission must reject outright Holtec International's application for a Consolidated "Interim" Storage Facility (CISF) for high-level nuclear waste for the reasons articulated below. It is premature and inappropriate to even address the application because there are so many unknowns/uncertainties related to the dearth of science and potential catastrophic risks and technical concerns related to centralized or consolidated interim storage sites for high-level nuclear waste. There is also the glaring fact that CISF's are currently NOT allowed under US federal laws. It is an application for an ILLEGAL DUMP. In addition to the illegality of the proposed site, the overwhelming reasons against this application, because of the potential catastrophic risks, are:

1. Monumental risks to a large unknown geographic area regarding human health (potentially thousands of square miles and much disease and death)
2. Disastrous risks to existing economic base, causing job and economic loss
3. Scientific data for technical design and decisions are vastly insufficient or unknown

#### I. HUMAN HEALTH RISKS:

1: Geology – The documents submitted by Holtec refer to the area as being "stable" for the long term. However, independent studies of adjacent areas of the Permian Basin, in which the proposed CISF site is located, show that the land surfaces have been shifting either up or down by several inches over short periods of time. In addition, the area is subject to sinkholes with a large one currently opening in the City of Carlsbad not far from the proposed site. This area is far from stable and indicates the extreme inadequacy of Holtec's geologic evaluation of the area. Short term geologic activity could easily damage canisters and release high-level nuclear radiation into a large surrounding area of unknown size and scope endangering human health.

2. Hydrology – There was a completely unsupported assumption by Holtec that the area was hydrologically isolated. Other sources have indicated that is not the case There has been no in-depth study of the area's hydrology with its playa lakes -- one located on the site, and their interaction with

relatively shallow groundwater and the Ogallala Aquifer. Also, a relatively shallow water table could very easily cause corrosive damage to stored canisters or a handling accident resulting in the releasing of radiation and causing permanent contamination of ground water of unknown and unevaluated scope.

3. Transportation - Testimony by Scott Parmer, Nuclear Policy Analyst, Brotherhood of Locomotive Engineers and Trainmen and Don Gallegos, New Mexico State Legislative Director and Secretary/Treasurer, Local 1687, International Association of Sheet Metal, Air, Rail and Transportation Workers, before the New Mexico Radioactive and Hazardous Materials Committee, showed that the Railroads of the US are entirely unprepared and unequipped to transport high-level nuclear waste from 29 states to the site without extreme danger to railroad workers and especially the general population of the US. The unacceptable risk comes from lack of preparedness and training of transportation workers, unacceptable physical condition of rail systems, and unknown risk of accident and radioactive release anywhere in the transportation system. The license application presupposes transportation and must be considered by the NRC in evaluation of the application as to its unacceptable environmental risks. The US Navy made some 800 shipments of high-level radioactive material in the past, but these were much smaller in scope and over a very limited transportation system. Parmer and Gallegos testified that what Holtec is proposing in transportation is entirely unprecedented.

## II. RISKS TO THE EXISTING ECONOMIC BASE:

1. Holtec International proposes to consolidate over 120,000 metric tons of high-level nuclear waste making this site the most intensely radioactive on the face of the planet. This waste would be contained in at least 10,000 thin-walled casks. Each of these casks would contain **the equivalent radiation that was released at Chernobyl**. The accidental failure or rupture of even one of these casks, whether during transportation or storage, could easily result in a monumental disaster rivaling the 1,000 square mile and centuries long exclusion zone resulting from the Chernobyl disaster. The southeast corner of New Mexico currently has significant pecan, dairy, cattle and other agricultural interests as well as extractive industries that provide tens of thousands of jobs to local and regional residents and very significant revenue to the State of New Mexico. All of this would be put at unacceptable risk for some 100 jobs that would be provided at the proposed CISF. The proposed Holtec CISF would provide almost no economic benefit but would put the current robust base economy at unknown and unacceptable risk.

2. The environmental report submitted by Holtec International concentrates on only a five-mile radius around the proposed CISF site. For the NRC to accept such a completely inadequate and superficial evaluation of the risk area would be ludicrous and irresponsible. The full actual impact on the region's economy is not even addressed by Holtec's analysis. There has been no realistic estimation of the risk involved for any part of this proposal. Holtec's safety analysis report in section 4.7 - Summary of Design Criteria, page 187, categorically denies in scenario after scenario that there is any risk whatever no matter the circumstances. Such denials stretch the limits of credulity and go completely against common sense.

3. The thin-walled casks proposed by Holtec International have only a 25-year warranty. These are being proposed to be put into **"temporary"** storage for a period of not less than 40 years but which may be easily extended to 70 years and perhaps for 120 years. The site is being designed for 300 years'

service according to Holtec International. There are reports that thin-walled casks of this type can crack and fail in very much less time than is being proposed for temporary interim storage. All of this very realistically indicates that there will be cask failure leading to high-level radiation leaks and contamination and a disaster of Chernobyl or even much larger proportions.

These thin-walled casks (5/8 inches or less) cannot be inspected, monitored, or repaired if cracking occurs. In addition, the high-level nuclear waste stored in these casks cannot be retrieved if cask failure occurs. The rest of the world. Including all of Europe, uses thick-walled (5 inches or greater) casks that can be inspected, monitored, and repaired. There are no plans in Holtec's application to deal with any probable failure of these thin-walled casks. This glaring lack puts the existing risk to the State and region's economic base at a completely unacceptable risk level.

4. If Holtec's license application is approved and goes forward, a de-facto permanent dump site would result. Billions were spent towards a permanent repository slated for Yucca Mountain, Nevada, but plans were never adequate to isolate waste from living things for a million years. If nuclear waste gets shipped to New Mexico, utilities in 39 states would no longer have a disastrous nuclear waste problem on their hands – it would all be unfairly transferred to New Mexico.

Lobbying for viable permanent disposal would cease and it is unlikely that Congress would fund a viable repository elsewhere. New Mexico could get stuck with the waste forever, at a site never designed for long-term isolation and in casks that won't last that long, resulting in a nuclear sacrifice zone of unknown and unprecedented disastrous scope. This puts the long term current economic base on notice that their future is at the highest state of risk that exists.

### III. SCIENTIFIC DATA needed before any decision can be made:

1. Methods to monitor, inspect and repair thin-walled casks or the ability to retrieve high-level nuclear waste from these casks currently does **not** exist and is very highly unlikely to be developed in the foreseeable future. It is imperative that these methods be first developed and proven before any thin-walled casks are considered for any kind of interim storage of high-level nuclear waste.

2. Estimates of the service life of thin-walled casks have been put forth but these numbers are based on highly questionable modeling and assumptions. This is entirely untested technology. It is imperative that reliable scientific data be developed that considers long term effects of intense radiation on materials as well as all environmental impacts (e.g., earthquakes, floods, etc. as in Japan) that will be encountered in both transportation and storage conditions.

3. In addition to the above lack of scientific data, detailed and thorough environmental and hydrological analysis of any proposed site must be developed in advance. In that way the public could be genuinely involved in evaluating risk during the decision process.

4. It is premature for NRC to even consider/address this application until the NRC and the public have much more complete scientific and economic data made available to them, so that realistic and reliable, informed decisions can be made.

Both the Los Alamos and Sandia National Labs in New Mexico should be involved long term in developing the needed scientific data before any further action is done on licensing any type of interim storage of high-level nuclear waste.

#### IV. CONCLUSION:

We urge the NRC to reject outright this license application by Holtec International for a CISF due to the issues articulated and discussed above. The proposal to bring all the high-level nuclear waste in the US to a single site goes far beyond any rights of a private company to conduct business or its private property rights.

Any environmental review would be severely limited by the necessary, greatly limited and incomplete science. It would have to be a complete lifecycle assessment, including but not limited to geology, hydrology, storage stability, health effects, economic effects to workers and area of at least 1000 square miles, etc.

High-level nuclear waste is the most toxic and destructive material on the face of the planet -just consider Chernobyl and the recent Japanese disasters. The prospect of one private company and a small group of people putting the public at such high risk of radioactive release and contamination along all probable transportation routes and at the site itself constitute an unconscionable assault on public safety and wellbeing.

We hope that the NRC will fully consider all the issues we have raised. Because of the great lack of science allowing an informed decision to be made, it is very premature for NRC to grant a license for temporary storage of nuclear waste.

If you have questions, please contact us at (575)680-6062 (Ed) or (575)571-2983 (Patty)

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