

ADMRegs-Holtec-CISFEISCEm Resource

From: ADMRegs-Holtec-CISFEIS Resource
Sent: Tuesday, May 22, 2018 2:04 PM
To: ADMRegs-Holtec-CISFEISCEm Resource
Subject: HOLTEC #77 WITH ATTCHMENT
Attachments: NRC-2018-0052 #77 AtTACHMENT.pdf; nrc-2018-0052 draft 0067 #77.pdf

Holtec CISF
FDMS Comment Number:
DOCKET ID: NRC-2018-0052
83-FR-13802

Re: "Docket ID NRC-2018- 0052"

Submitted by Kevin Kamps, Radioactive Waste Specialist, Beyond Nuclear, May 11, 2018

Public comment re: Mobile Chernobyl shipping risks

Southeast New Mexico, near the Texas border, has the dubious distinction that every single train car load of high-level radioactive waste will pass through on its way into (and, if it ever leaves, out of) Holtec International/Eddy-Lea [Counties] Energy Alliance (ELEA). But transport impacts, to eventually import more irradiated nuclear fuel than currently exists in the U.S. into s.e. NM, will be felt nationwide. Transporting 100,000 metric tons, or more, of irradiated nuclear fuel to NM makes this proposal even bigger than the highly controversial, unacceptable Yucca Mountain, Nevada permanent burial dump scheme, in terms of transport impacts (limited to 70,000 metric tons under current law). In that sense, ***when it comes to radioactive waste transportation risks, we all live in New Mexico.***

This Holtec/ELEA, NM versus Yucca Mountain, NV comparison/contrast is made even more extreme, when one considers that NRC's own March 30, 2018 Federal Register Notice seems to indicate that up to 173,600 metric tons of irradiated nuclear fuel could be stored in s.e. NM, if all 20 phases are as big as the first phrase. And to make the comparison even more extreme, while all the waste at Holtec/ELEA, NM would supposedly be commercial irradiated nuclear fuel, only 90% of that dumped at Yucca would be (63,000 metric tons).

For this reason, only four NRC public comment meetings (three in s.e. NM, and one at the agency's HQ near Washington, D.C.), up until this date, have been woefully inadequate. While we are thankful NRC granted two additional public comment meetings in n. NM – in Gallup on May 21, and Albuquerque on May 22 – in response to the request by U.S. Senators Udall and Heinrich (Democrats from NM), this is still not good enough.

As a coalition of 52 environmental groups requested in a letter to NRC on May 9, 2018, cities that would be hard hit as transport hubs for highly radioactive waste shipments to Holtec/ELEA, NM, also deserve and need NRC public comment meetings. In its letter, the coalition proposed additional NRC public comment meetings in the following transport corridor communities:

The coalition letter requested as many NRC public meetings as possible in the following locations: Atlanta, GA; Boston, MA; Chicago, IL; Cleveland, OH; Dallas/Forth Worth and San Antonio, TX; Detroit, MI; Kansas City and St. Louis, MO; Los Angeles, CA; Miami and Tampa, FL; Minneapolis/Saint Paul, MN; Nashville, TN; New York City, NY; Newark, NJ; Omaha, NE; Philadelphia and Pittsburgh, PA; and Tampa, FL.

(See this link, <http://www.beyondnuclear.org/centralized-storage/2018/5/9/opponents-request-comment-period-extension-re-holteceleahig.html>, for a link to the coalition letter, and additional information.)

Countless millions of Americans, in most states in the Lower 48, would be put at risk by these highly radioactive, irradiated nuclear fuel shipments by train, truck, and/or barge. (See, for example, the national transport impacts associated with the proposed Yucca Mountain, Nevada permanent burial dump for highly radioactive waste:

- **Nevada Agency for Nuclear Projects** - [*Cities Potentially Affected by Shipments to Yucca Mountain*](#) (pdf-2.45M)

< http://www.state.nv.us/nucwaste/news2017/pdf/Cities_Affected.pdf>

- **Nevada Agency for Nuclear Projects** - [*States Potentially Affected by Shipments to Yucca Mountain, Nevada*](#) - Fred Dilger, PhD

< <http://www.state.nv.us/nucwaste/news2017/State%20Maps.pdf>>

- **Nevada Agency for Nuclear Projects** - [*Congressional Districts Potentially Affected by Shipments to Yucca Mountain, Nevada*](#)

<<http://www.state.nv.us/nucwaste/news2017/115th%20Congressional%20Districts%207252017.pdf>>

The further from the targeted destinations (Yucca Mountain, NV and s.e. NM), the more identical the routes would be for shipments. The closer to the targeted dump-sites the shipments came, the more the NV and NM routes would diverge. But as you can see, shipments to NM, just like shipments to NV, would impact most states.

For this reason, NRC should be holding environmental scoping public comment meetings across the country, not just in NM (and a single “national” meeting at the agency’s HQ in Rockville, MD on April 25). Americans nationwide should demand NRC hold a hearing in their impacted community! The U.S. Department of Energy (DOE), during its Yucca Draft Environmental Impact Statement (DEIS) public comment period many years ago, initially planned a dozen meetings nationwide. Under public pressure, DOE was forced to double the number of such meetings, in communities impacted elsewhere across the U.S., as well.

But a *de facto* permanent, surface storage, “parking lot dump” at Holtec/ELEA in s.e. NM would only increase safety risks. It would not decrease them. It would multiply transport risks, as it would only be temporary (supposedly, as if decades, or centuries, or more, can be called “temporary”!). All that highly radioactive waste would have to move again, to a permanent burial site (yet to be identified – that’s a big IF! Yucca is NOT suitable!). And that could be back in the same direction from which it came in the first place, meaning transport corridor communities could see these high risks coming and going!

Holtec/ELEA's assumption that the dump at Yucca Mountain, Nevada will open someday, to take the highly radioactive waste away, is inappropriate. The vast majority of Nevadans have expressed their very adamant non-consent for 30+ years now, and still vehemently oppose it. This is reflected by bipartisan resistance by elected officials, at both the state government level, as well as the U.S. congressional delegation level, in NV.

Holtec/ELEA's assumption that another permanent burial dump will be opened, by someone, somewhere, someday, somehow, is also inappropriate. After all, the search for a national geologic repository has gone on since the 1950s, but has failed. And DOE's current estimate for the opening of the U.S.'s first repository is 2048, 31 years from now. Except they have no idea where that will be. There is every likelihood that the 2048 date will slip into the future as well.

The failed Private Fuel Storage, LLC (PFS) parking lot dump targeted at the Skull Valley Goshutes Indian Reservation in Utah, likewise assumed the Yucca dump would open. They were, of course, incorrect. PFS was based on Holtec casks, just as is the current NM scheme.

So PFS's "Plan B" was to "return to sender." Holtec has a similar plan, if casks show up damaged or contaminated, in order to protect its supposedly "start clean, stay clean" Centralized Interim Storage Facility (CISF), or Monitored Retrievable Storage (MRS) site, in s.e. NM. If 100,000 to 120,000 to 173,600 metric tons of irradiated nuclear fuel – the amount targeted, in various documents at various points in time, to go to Holtec/ELEA in s.e. NM – were to be "returned to sender," some decade or century, due to the lack of a permanent dumpsite to send it to, what would that look like in terms of multiplied transport risks?!

Maine Yankee was a PFS nuclear power industry consortium member. More than 50 rail sized containers of highly radioactive irradiated nuclear fuel would have traveled 5,000 miles round trip, from Maine to Utah, accomplishing absolutely nothing, other than exposing millions of people in numerous states to high-risk shipments.

Another version of this is the fact that permanent burial sites could be located right back in the same direction from which the waste came in the first place. In fact, at one time, DOE was targeting two sites in Maine, seven sites in Vermont, and two sites in New Hampshire, for permanent burial dumps. (See Beyond Nuclear's backgrounder, re: the NH targets, at: http://static1.1.sqspcdn.com/static/f/356082/24115710/1487366549330/New_Hampshire_dump_final+draft.pdf?token=ZDgyvKfq8uxG4HPqWmvVvXBuwmY%3D).

This "game" of high-risk, highly radioactive waste "musical chairs," or highly radioactive waste "hot potato," on the roads (initial leg heavy haul truck shipments), rails, and waterways (initial leg barge shipments), is unacceptably dangerous. It

amounts to Radioactive Russian roulette on the roads, rails, and waterways. Multiplying transport risks for no good reason is wrong, and makes no sense.

The Holtec's infamous Quality Assurance (QA) failures and violations are very significant to shipping risks. Shipping casks would be less capable of withstanding severe accidents (such as high-speed crashes, including into immovable objects, like bridge abutments; high-temperature, long-duration fires; deep, long-lasting underwater submersions; drops from tall heights, onto unyielding surfaces, such as bridge foundations or rocks down below; or some combination of all those), as well as intentional attacks (such as with shaped charges, or anti-tank weapon systems – see below) or other powerful explosions (such as explosive cargoes on passing trains, including, nowadays, crude oil "Bomb Trains," as from the Bakken oil fields in North Dakota, or the tar sands in Alberta, Canada). See a summary of industry- and Nuclear Regulatory Commission-whistleblower revelations about Holtec QA violations posted here:

<http://www.beyondnuclear.org/centralized-storage/2017/4/5/summary-of-oscar-shiranis-allegations-of-quality-assurance-v.html>

Adding to these shipping risks, is the potential for barge shipments on surface waters. Shipments to Holtec/ELEA in s.e. NM are supposed to be "mostly [by] rail" -- which can also mean many barges (more than two-dozen reactors in the U.S. lack direct rail access, meaning barges on surface waters -- the Great Lakes, rivers, seacoasts -- could be used to haul the 100+ ton, rail-sized casks to the nearest rail head). Backgrounders (including more details on the high risks) on these various barge routes (including maps) were originally written for the Yucca dump scheme; however, Holtec/ELEA could just as well involve such barges.

DOE's Feb. 2002 Yucca Mountain Final Environmental Impact Statement (FEIS) gives a preview of barge shipments that could well be required to ship high-level radioactive waste to s.e. NM. The following barge shipment routes were proposed under the Yucca Mountain plan:

(See NIRS – Nuclear Information and Resource Service -- factsheets on barge shipments of deadly high-level radioactive waste on waterways, by state, posted online September 28, 2004):

- [MD - Chesapeake Bay](#) **PDF**

<<https://web.archive.org/web/20160331033728/http://www.nirs.org/factsheets/mdbargefactsheet92804.pdf>>

- [VA - James River](#) **PDF**

<<https://web.archive.org/web/20160331033736/http://www.nirs.org/factsheets/vabargefactsheet92804.pdf>>

- [DE - Delaware Bay](#) **PDF**

<<https://web.archive.org/web/20160331032838/http://www.nirs.org/factsheets/debargefactsheet92804.pdf> >

- [NJ, NY, CT - Waters Surrounding New York City](#) **PDF**

<<https://web.archive.org/web/20160331034044/http://www.nirs.org/factsheets/nybargefactsheet92804.pdf> >

- [MA - Cape Cod Bay, Massachusetts Bay, and Boston Harbor](#) **PDF**

<<https://web.archive.org/web/20160331020332/http://www.nirs.org/factsheets/mabargefactsheet92804.pdf> >

- [IL, MI, WI - Lake Michigan](#) **PDF**

<<https://web.archive.org/web/20160327081932/http://www.nirs.org/factsheets/mibargefactsheet92804.pdf> >

- [LA, MS - Mississippi River](#) **PDF**

<<https://web.archive.org/web/20160331080128/http://www.nirs.org/factsheets/lamsbargefactsheet92804.pdf> >

- [TN, AL - Tennessee River](#) **PDF**

<<https://web.archive.org/web/20160331063817/http://www.nirs.org/factsheets/tnalbargefactsheet92804.pdf> >

- [NE, KS, MO - Missouri River](#) **PDF**

<<https://web.archive.org/web/20160331020303/http://www.nirs.org/factsheets/nemoksbargefactsheet92804.pdf> >

- [CA - California Coast](#) **PDF**

<<https://web.archive.org/web/20160331030740/http://www.nirs.org/factsheets/cabargefactsheet92804.pdf> >

- [FL - Florida's Atlantic Coastline](#) **PDF**

<<https://web.archive.org/web/20160331035101/http://www.nirs.org/factsheets/flbargefactsheet92804.pdf> >

(However, with something as simple as a rushed NRC rubber-stamp amendment – which the shamelessly complicit and colluding agency would be only too happy to provide the company -- Holtec could apply for, and perhaps even quickly get, permission to *truck* in smaller-sized, "Legal Weight Truck" (LWT) casks to the s.e. NM CISF/MRS. After all, Holtec has bragged in its CISF license application documents submitted to NRC that it would accommodate any and all cask models, not just its own, at the s.e. NM MRS site. Any and all would include LWT-sized outer casks and inner canisters containing irradiated nuclear fuel. This mix of trains/barges/heavy haul trucks, and LWT casks/canisters, would mean even more American communities would be exposed to Mobile Chernobyl risks, as along interstate highways, and the smaller roads needed to access them, or exit from them, the closer in to Holtec/ELEA, NM these truck shipments came.

"Dirty Bomb on Wheels" [security risks would abound](https://web.archive.org/web/20150908070611/http://www.nirs.org/factsheets/nirsfctshdrycaskvulnerable.pdf).
<<https://web.archive.org/web/20150908070611/http://www.nirs.org/factsheets/nirsfctshdrycaskvulnerable.pdf> > This was made clear by the test of an anti-tank missile against an (empty) irradiated nuclear fuel shipping cask at the U.S. Army's Aberdeen Proving Ground in Maryland. The June 1998 test targeted a German CASTOR cask. While certified for storage-only in the U.S. (the cask model is deployed at the nuclear power plant in Surry, VA), it is used for transport in Europe, as in France and Germany. CASTORs have relatively thick die cast iron walls, as opposed to much thinner walled steel inner canisters in the U.S. (15+ inches thick CASTORs, versus around 0.5 inches thin inner canisters as with the Holtec containers!) That is, CASTORs are significantly more robust, more capable to withstand such an attack. However, even the CASTOR, the "Cadillac of shipping casks" as some have called it, was severely breached by the anti-tank missile test at the June 1998 U.S. Army Aberdeen Proving Ground. A hole as big around as a grapefruit or softball was blown clean through the side of the cask wall. Had irradiated nuclear fuel been inside, the hole would have created the pathway for release of disastrous amounts of hazardous radioactivity – all the more so, if an incendiary attack were combined with the explosive attack. If the zirconium metal cladding on the fuel rods in the irradiated nuclear fuel assembly were to be heated to its ignition temperature, the fire could even become self-feeding, like highly radioactive, super-sized 4th of July sparklers. In short, shipping containers were not designed to withstand such attacks. See:
<<https://web.archive.org/web/20150908070611/http://www.nirs.org/factsheets/nirsfctshdrycaskvulnerable.pdf>>.

Such a scenario could unleash disastrous amounts of hazardous radioactivity into the environment, hence the label of potential "Dirty Bombs on Wheels." As San Onofre Safety has put it, each Holtec canister holds an equivalent amount of volatile (able to escape in a fire) radioactive Cesium-137 as was released by the Chernobyl nuclear catastrophe. And as Dr. Marvin Resnikoff of Radioactive Waste Management Associates has put it, a container holding 24 Pressurized Water Reactor (PWR) irradiated nuclear fuel assemblies holds 240 times the long-lasting radioactivity (in terms of radioactive Cesium isotopes alone, let alone the hundreds of additional

hazardous radioactive isotopes) released by the Hiroshima atomic bomb. Only now, Holtec has moved on from containers holding “only” 24 PWR assemblies, to ones capable of holding 37 assemblies! That would thus mean 37 Hiroshima atomic bomb’s worth of long-lasting radioactivity in each container! Only, it’s even worse than that, as Resnikoff’s figure applied to low burn-up fuel; high burn-up fuel, unfortunately commonplace today, is even more radioactive!

For more info., please contact Kevin Kamps, Beyond Nuclear’s Radioactive Waste Specialist, at kevin@beyondnuclear.org. Learn more about radioactive waste transport risks at: <http://www.beyondnuclear.org/waste-transportation/>

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Holtec International HI-STORE Consolidated Interim Storage Facility Project

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Holtec International HI-STORE Consolidated Interim Storage Facility Project

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General Comment

Re: Docket ID NRC2018 0052

Submitted by Kevin Kamps, Radioactive Waste Specialist, Beyond Nuclear, May 11, 2018

See attached file(s)

As your Comment webform section here does not accommodate the 7 page length of my public comments, I have uploaded and attached my comments in PDF format. My comments are entitled: "Public comment re: Mobile Chernobyl shipping risks."

Attachments

5 11 18 Mobile Chernobyl shipping risks public comment as posted at Regulations dot gov