PUBLIC COMMENTS PREPARED AND SUBMITTED BY KEVIN KAMPS, RADIOACTIVE WASTE SPECIALIST, BEYOND NUCLEAR, IN OPPOSITION TO THE HOLTEC INTERNATIONAL/EDDY-LEA ENERGY ALLIANCE APPLICATION TO CONSTRUCT AND OPERATE A CENTRALIZED INTERIM STORAGE FACILITY FOR 173,600 METRIC TONS OF HIGHLY RADIOACTIVE IRRADIATED NUCLEAR FUEL IN SOUTHEAST NEW MEXICO:

Much of the following was delivered verbally at the public comment microphone, albeit in segments due to short 4 to 5 minute time limits, at the NRC environmental scoping meetings held in Roswell (Mon., April 30, 2018), Hobbs (Tues., May 1), and Carlsbad (Thurs., May 3), New Mexico:

On our Beyond Nuclear info. table in back, as well as posted online, I have a number of sets of comments available. You are welcome to use them in any way you see fit to help you prepare your own, for either verbal or written comment submissions to the U.S. Nuclear Regulatory Commission (NRC). Instructions are provided on both the hardcopies, as well as the online posts at www.beyondnuclear.org, in the Centralized Storage website section, as to how to submit your comments to NRC – either online at regulations.gov, or by snail mail, by the May 29th deadline.

The sets of comments I've already prepared, and will be submitting to NRC on behalf of our members and supporters in New Mexico, and across the U.S., include the following.

The first set of comments is on the risks of transporting highly radioactive irradiated nuclear fuel, whether by train, truck, or barge, on rails, roads, or waterways. Risks include the release of disastrous amounts of hazardous radioactivity, whether due to severe accidents, or intentional attacks. Severe accidents could include high-speed crashes into immovable objects, like bridge abutments; high-temperature, long-duration fires; long-duration, underwater submersions; etc. Intentional attacks, as by anti-tanks missiles or shaped charges, could also breach shipping containers, and release their contents into the environment. For these reasons, critics have long called such shipments potential “Mobile Chernobyls,” “Dirty Bombs on Wheels,” and “Floating Fukushimas.” As Holtec/ELEA has claimed in its license application that any and all NRC-certified canisters can be accommodated, not only rail-sized shipping containers must be worried about, but so too Legal Weight Truck casks, which would travel on interstate highways. Thus, whether by truck, train, or barge, on roads, rails, or waterways, the “Mobile Chernobyl” risks of Holtec/ELEA’s scheme must be addressed.

A second set of comments addresses another aspect of shipping risks: the risks of so-called “routine,” or “incident-free,” shipments nonetheless being like “mobile X-ray machines that can’t be turned off,” a phrase coined by Loren Olson more than 20 years ago. This is due to the gamma- and neutron-radiation being emitted from the highly radioactive irradiated nuclear fuel. To shield it all would require radiation
shielding so thick that containers would be extraordinarily expensive to construct, but also so heavy as to be difficult or impossible to move. So NRC has allowed a certain amount of gamma- and neutron-radiation to be emitted. Granted, this radioactivity dissipates quickly with distance. But at six feet away from the container’s exterior surface, a dose rate of 10 milli-Rem per hour is allowed by NRC. That’s about one to two chest X-rays worth, per hour. At the exterior surface of the container, the allowable dose rate increases dramatically, to 200 milli-Rem per hour – 20 to 40 chest X-rays worth. Workers, such as truck drivers, locomotive engineers, inspectors, security guards, etc., who come in very close physical proximity to the shipping container, would be exposed to the highest radiation dose rates. But even innocent passers by, and bystanders, in the general public would also be exposed. This includes those who live close to transport routes, exposed to large numbers of shipments going by over time. Some people, such as pregnant women, should not be exposed to any radiation dose that can be avoided, due to the high risk of harm caused to the fetus in the womb. Of course, shipments externally contaminated with radioactivity would emit even worse radiation dose rates. The State of Nevada Agency for Nuclear Projects, based on federal government data, has documented 49 incidents of accidental surface contamination on highly radioactive irradiated nuclear fuel shipments, between the years of 1949 and 1996. In France, Areva Corporation (recently renamed Orano) had many hundreds of externally contaminated shipments – a full one-quarter to one-third of all shipments bound for the La Hague reprocessing facility. On average, they emitted 500 times the allowable radiation dose rates; one emitted 3,300 times the allowable dose rate. “Allowable” does not mean safe. Any exposure to ionizing radioactivity carries a health risk, and these risks accumulate over a lifetime.

As Holtec/ELEA would be so much bigger than the Yucca dump in Nevada – 173,000 metric tons, versus 70,000 metric tons – the transport risks and impacts would be significantly larger as well. Holtec/ELEA has stated that 100,000 metric tons would mean 10,000 cask shipments. Thus, 173,000 metric tons would mean 17,000 cask shipments. Compare that to the 12,145 cask shipments predicted for the Yucca dump. In terms of radioactive Russian roulette rolls of the dice on the roads, rails, and waterways, Holtec/ELEA’s facility would be significantly more risky than even the highly controversial, high-risk Yucca dump scheme.

A third set of comments is about the risk of so-called centralized or consolidated "interim" storage facilities becoming de facto permanent, surface storage, “parking lot dumps.” Holtec/ELEA have applied for a permit to NRC to store irradiated nuclear fuel in southeast New Mexico for 40 years. But this time period could be extended to 120 years, they admit. But in a contractor report prepared by Holtec for the U.S. Department of Energy some years ago, Holtec urged DOE to acknowledge a service life for “interim” storage to last 300 years. How even 40 years can be called “temporary” is beyond me, let alone 300 – longer than the United States has been a country. The first federal government commissioned report on the disposal of highly radioactive irradiated nuclear fuel was published in 1957, the same year as the first so-called civilian atomic reactor began operations in the U.S., at Shippingport, PA.
But in 61 years since, a geologic repository has not opened in this country. DOE said five years ago that one could not now be opened till 2048 at the earliest, 30 years from now. Even that date is likely very optimistic. As geologic disposal is so elusive, any claims of "interim" or "temporary" storage must be met with deep skepticism. And once 173,000+ metric tons of highly radioactive irradiated nuclear fuel are "parked" in southeast New Mexico, there is a good chance it will never leave again. For one thing, it would be one member of the U.S. House of Representatives versus 434 others, who would likely say, it’s fine where it’s at; likewise in the U.S. Senate, by a vote of 98 to 2.

A fourth set of comments follows, regarding the risks of loss of institutional control if de facto permanent surface storage “parking lot dumps” are abandoned, containers fail, and release catastrophic amounts of hazardous radioactivity into the environment. Institutional control is guaranteed to take place over a long enough period of time. No society can last forever. In fact, the very oldest human institutions are at most a few to several thousand years old, such as Roman Catholicism, Tibetan Buddhism, and Judaism, to name a few examples. But highly radioactive irradiated nuclear fuel is hazardous for a million years. Deadly forevermore, in other words.

The U.S. Environmental Protection Agency (EPA) was forced to acknowledge that by court order a decade ago. EPA had wanted to cut off regulations at Yucca Mountain, Nevada, the proposed national burial dump, after just 10,000 years. But a coalition of environmental groups, including NIRS and Public Citizen, as well as the State of Nevada, challenged EPA in court. Even a million years of hazard is a huge underestimate. Artificial Iodine-129, a reactor product, is present in irradiated nuclear fuel. I-129 has a 15.7 million year half-life, and 157 million years, or more, of hazardous persistence. DOE, in its Feb. 2002 Yucca Mountain Final Environmental Impact Statement, warned that irradiated nuclear fuel, abandoned at reactor sites with loss of institutional control, would eventually leak catastrophic amounts of radioactivity into the environment over time, as dry casks containing it failed, as due to corrosion, exposure to the elements, etc. But the same of course would be true at an abandoned centralized or consolidated interim storage facility, such as Holtec/ELEA want to open in southeast New Mexico. Up to 173,000 metric tons of highly radioactive waste leaking into the environment from shallowly sub-grade storage here, over time, would truly be catastrophic. The forever deadly radioactive wastes would blow with the wind, and flow with the water, harming people and other living things downwind, downstream, up the food chain, and down the generations, forevermore. “Forevermore” happens to be the title of a 1986 book by Barlett and Steele, subtitled “Nuclear Waste in America.” The book contains a compelling chapter about the Waste Isolation Pilot Plant (WIPP), located so close to the targeted Holtec/ELEA site. WIPP made claims about “start clean, stay clean,” and the impossibility of leaks over 10,000 years, or even 200,000 years – but it leaked after only 15 years. Holtec/ELEA have made similar claims about centralized interim storage. Fool me once, shame on you; fool me twice, shame on me.

A fifth set of comments asks, "Why Are All These High Risks Being Taken in the First Place?!" The answer is, to expedite the transfer of title, and liability, for the highly
radioactive irradiated nuclear fuel, from the utilities that generated it, to DOE – which means federal taxpayers – ASAP. That’s not a very good or wise reason to ship 173,000 metric tons of irradiated nuclear fuel to southeast New Mexico for “temporary” storage. DOE – that is, federal taxpayers – are already on the hook for permanent disposal of these wastes, an unprecedented subsidy in any industry, which will inevitably cost federal taxpayers many tens of billions of dollars, if not more. But interim storage is supposed to be the utilities’ responsibility. This open secret – that Holtec/ELEA are looking to DOE to shoulder all liability if something goes wrong, and to pay all costs, at taxpayer expense – actually makes this NRC licensing proceeding inappropriate, illegal. Private, away from reactor, centralized storage would be legal, but the utilities would have to retain liability – it could only be transferred to DOE at a permanent repository, under current law. That’s why lobbyists from Holtec/ELEA, as well as Waste Control Specialists, Texas, and other nuclear power industry lobbyists, are trying to get the law changed, to allow such title and liability transfer to be accelerated by decades, further burdening federal taxpayers with interim storage too, in addition to permanent disposal costs.

A final set of current comments is entitled "We Do NOT Consent!" Due to all the risks already mentioned, and many more, that about sums it up -- we do NOT consent!

Thank you for taking my comments into consideration.