nuclear watch new mexico

September 22, 2020

U.S. Nuclear Regulatory Commission
Washington, DC 20555– 0001

Submitted online at:
Holtec-CISFEIS@nrc.gov

RE: Docket ID NRC-2018-0052, Draft Environmental Impact Statement, Public Comment

Dear NRC Commissioners and Staff,

We respectfully submit these scoping comments on the Holtec Draft Environmental Impact Statement (DEIS) to bring at least 173,600 metric tons of spent fuel, high-level radioactive waste, from nuclear reactors around the country to southeast New Mexico. Please know that we do not consent to becoming a national radioactive waste dumping ground or to transporting up to 10,000 canisters of highly radioactive waste through thousands of communities. We should not have to risk the contamination of our land, aquifers, air, plants, wildlife, and livestock. We do not consent to endangering present and future generations.

Nuclear Watch New Mexico seeks to promote safety and environmental protection at nuclear facilities; mission diversification away from nuclear weapons programs; greater accountability and cleanup in the nation-wide nuclear weapons complex; and consistent U.S. leadership toward a world free of nuclear weapons.

Summary of Comments

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New Mexico Does Not Consent

The motto of the Nuclear Regulatory Commission is "Protecting People and the Environment," yet the NRC's Draft Environmental Impact Statement (DEIS) on the Holtec project does neither. Instead, the NRC's inadequate Draft EIS puts people, wildlife and precious water resources at significant and potentially deadly risk by failing to heed the concerns of the community. We join the All Pueblo Council of Governors, New Mexico Governor Michelle Lujan Grisham, New Mexico State Land Commissioner Stephanie Garcia Richard, more than a dozen county and city governments, the Alliance for Environmental Strategies, the New Mexico Cattle Growers Association, the Permian Basin Coalition of Land & Royalty Owners and Operators, the Nuclear Issues Study Group, and the more than 30,000 residents who commented during the NRC's 2018 environmental scoping period in vehemently opposing bringing the nation's high level radioactive waste from nuclear power plants through our communities to New Mexico.

We do not consent to New Mexico becoming a nuclear wasteland for millions of years.

The Whole Picture Must Be Analyzed

We do not consent to DOE trying to divide and conquer, by attempting to play "orphaned" waste communities off against the rest of us – many "stranded" waste communities have stated explicitly that *de facto* permanent surface storage is done "not in our name." The U.S. Department of Energy's (DOE) stated purpose for prioritizing "stranded" waste is to free up decommissioned nuclear power plant sites for "unrestricted," and productive "re-use." But decommissioning regulations are so inadequate that supposedly "cleaned up" sites are still

significantly contaminated with hazardous radioactivity, making re-use of those sites risky for current and future generations.

In January 2012 the Blue Ribbon Commission (BRC) on America's Nuclear Future parroted DOE's "orphaned" and "stranded" irradiated nuclear fuel arguments in recommending Consolidated Interim Storage Facilities (CISFs) as a top priority. The Holtec/Eddy Lea Energy Alliance (ELEA) cites the BRC's CISF recommendations from the BRC's Final Report in its own application documents. Holtec/ELEA also claim their scheme is consistent with the BRC's and Obama DOE's talk of "consent-based siting." The growing groundswell of public opposition in NM and beyond to this and other CISF schemes, shows that the public does *NOT* consent.

DOE must analyze all the current reactor storage sites and state the impacts for each site for leaving the casks in place and also for contamination left behind. All questions must be answered, such as: how long will the casks last? And how long will they be safe?

This Project Must Not Allow Environmental Racism

It's no coincidence that the United States wants to make New Mexico a nuclear wasteland. It ranks as one of the poorest states and is a majority minority state, with more Black, Indigenous and People of Color (BIPOC) residents than white residents. For the NRC to determine that nuclear waste which will threaten life for millions of years would have "small" or "no environmental impact" is a blatant violation of environmental justice principles and is environmental racism in action. We do not give our own government license to allow a private industry to further contaminate New Mexicans' home or to expand the massive nuclear burden New Mexicans already bear.

This Holtec Project Is Illegal

Under current U.S. law, this project is illegal. The Nuclear Waste Policy Act of 1982, as amended, does not allow the federal government to take title to the high-level radioactive waste (commercial irradiated nuclear fuel) until a permanent geologic repository is operating. So, the federal government cannot pay for transportation and storage of the waste as Holtec wants. Legally, the license cannot be issued until a permanent repository is operating.

The DEIS does not discuss those legal requirements and is incomplete and inadequate. The DEIS states: "DOE would be responsible for transporting Spent Nuclear Fuel (SNF) from existing commercial nuclear power reactor storage facilities to the CIS Facility." Current law does not authorize or fund DOE to do such transportation to a private storage facility. The DEIS does not discuss how DOE could legally do what the ER states and is inadequate and incomplete. ***Because this whole project does not rest on a legal foundation the NRC should desist from proceeding with this licensing process.***

The waiver of any connection or "linkage" between development of centralized interim storage facilities (CISFs) and progress toward opening a repository only increases the risk that stored wastes will simply be allowed to remain in centralized, so-called "interim," surface storage facilities indefinitely on into the future. In other words, they could become *de facto* permanent "parking lot dumps."

U.S. Senator Jeff Bingaman (D-NM), former Chairman of the Energy and Natural Resources Committee, warned against this de-linkage in 2012. In fact, the requirement for a permanent disposal repository being opened and ***operating*** was, and still is, essential and foundational in the Nuclear Waste Policy Act (as amended), which is the benchmark law on commercial irradiated nuclear fuel and highly radioactive waste management. This was, and still is, a safeguard against interim storage sites becoming *de facto* permanent surface "disposal," or "parking lot dumps."

Note that this linkage requires an *operating* repository, not just a licensed one, nor just a proposed one by someone, for someday, somewhere, some way. Current U.S. Department of Energy (DOE) projections for the opening of a permanent burial dump are by 2048, 30 years from now, although they don't know whom, where, or how.

In 2048, it will be 106 years after Enrico Fermi generated the first cupful of high-level radioactive waste of the Atomic Age as part of the Manhattan Project race for the atomic bomb. 2048 will be 99 years after the first so-called civilian, or commercial, irradiated nuclear fuel was generated, at the Shippingport atomic reactor near Pittsburgh, PA. Such long delays in high-level radioactive waste management and disposal are a red flag warning about Holtec/ELEA's CIS facilities becoming long-term, or even *de facto* permanent, surface storage parking lot dumps.

High Risks Would Be Passed to Taxpayers as High Profits Line Private Pockets

Holtec/ELEA hatched this plan as a regional development scheme. This is an example of the tail wagging the dog. The whole scheme is based on the fact that the Eddy-Lea Energy Alliance has some land that they want to develop. DOE must analyze if the proposed site is the best location.

Please explain why are all these high risks being taken in the first place. Certainly not to benefit public health, safety, security, or environmental protection, despite Holtec/ELEA and nuclear power industry claims to the contrary. The transfer of title, liability, costs, and risks for the highly radioactive irradiated nuclear fuel from the companies that generated and profited from its generation must be analyzed. If Holtec/ELEA's lobbyists can finagle access to the monies remaining in the Nuclear Waste Fund coffers, will federal taxpayers and/or nuclear electricity ratepayers be stuck with the bill?

Holtec/ELEA can make large profits "temporarily storing" these highly radioactive wastes (for 40 years, to 120 years, to *de facto* permanently), without having to shoulder any of the costs, or risk-liabilities. NRC must analyze the impacts of a for-profit corporation managing

the CISF. What if they go bankrupt and walk away? What if the storage system turns out to be faulty? Who, if anyone, will repair any mistakes?

Dr. Mark Cooper of Vermont Law School, in December 2013, in his expert witness comments to the U.S. Nuclear Regulatory Commission's Nuclear Waste Confidence/Continued Storage of Spent Nuclear Fuel Environmental Impact Statement proceeding, calculated that the first 200 years of commercial irradiated nuclear fuel storage will cost $210 to $350 billion (yes, with a B).[1]

Cooper's estimate assumed two centralized interim storage facilities CISFs, one permanent geologic repository (burial dump, as currently targeted at Yucca Mountain, Nevada), and ongoing on-site storage at nuclear power plants, as needed. It effectively doubled the costs of nuclear-generated electricity, because those irradiated nuclear fuel management costs had never been accounted for, not in a half-century of commercial irradiated nuclear fuel generation in the U.S. As it turns out, Holtec/ELEA in New Mexico and Waste Control Specialists, LLC in Texas (WCS) – just 38 miles from each other – have now both applied to NRC for CISF construction and operation licenses), Thus, consolidated interim storage, as at Holtec/ELEA in NM, as well at WCS in TX, would be yet another significant public subsidy for the dying nuclear energy industry.

Who Ultimately Pays and the Effects on the Proposed Scheme Must Be Analyzed

At NRC public comment meetings in Hobbs, NM and Andrews, TX in mid-Feb. 2017, re: the Waste Control Specialists (WCS) CISF proposal, then WCS CEO Rod Baltzer said that the federal taxpayer is already obligated to pay for irradiated nuclear fuel storage. This is because DOE signed contracts with nuclear utilities in the mid-1980s, pledging to begin "taking out the garbage" in 1998. He pointed out that the utilities have sued DOE for breach of contract, and won damages from the U.S. Judgment Fund, which draws taxpayer funding from the U.S. Treasury, ***not*** nuclear-generated electricity ratepayer funding from the Nuclear Waste Fund.

Under the Nuclear Waste Policy Act (as amended) the nuclear utilities (meaning their electricity consumers, a.k.a. ratepayers, as well as shareholders) are responsible for interim storage of irradiated nuclear fuel. Federal taxpayers are responsible for final disposal, in a so-called "deep geologic repository."

Does Holtec/ELEA intend to foot the bill for its CISF in Southeast NM? Does it intend to assume title and liability for the irradiated nuclear fuel? Or will the nuclear power utilities retain title and liability, pay all costs, and assume all risks? But it seems that Holtec/ELEA doesn't want to shoulder the costs, risks, and liabilities. It would prefer DOE (that is taxpayers and/or ratepayers) shoulder those while it simply pockets the profits.

[1] See his expert comments here, as well as the related press release here

Current law requires a final disposal repository to be constructed and operating (not just licensed by NRC), before DOE can take title and liability for commercial highly radioactive irradiated nuclear fuel wastes, and start paying for such costs as transportation to that permanent dumpsite.

DOE ***cannot*** pay federal taxpayer dollars for privately owned and operated CISFs, absent an operating permanent geological repository – including both Holtec/ELEA's scheme in NM and WCS's scheme 38 miles away in TX. This is not legal under the Nuclear Waste Policy Act, a.k.a. current law.

This is very risky for U.S. federal taxpayer, and/or nuclear electricity ratepayers. The linkage between an operating final disposal repository and a centralized interim storage facility (CISF) in the Nuclear Waste Policy Act is to guard against centralized interim storage from becoming a *de facto* permanent, surface storage "parking lot dump." The U.S. federal taxpayer and/or nuclear electricity ratepayers may get stuck with the costs, liabilities and the risks, indefinitely or forevermore.

This end run around the precautionary linkage between an operating repository and one or more consolidated interim storage facilities that Holtec/ELEA seeks would be a huge boon to the nuclear power industry. It would expedite the transfer of all costs, risks, and liabilities for irradiated nuclear fuel from the nuclear utilities that profited from its generation onto the backs of U.S. federal taxpayers and/or nuclear utility ratepayers, sooner rather than later -- even before a repository is operating. Long before the DOE's most recent estimate, as to when a repository can be opened, which is 2048.

The Impacts of Permanent Storage Must Be Analyzed

The Environmental Report (ER) must analyze the impacts of this "interim storage" becoming a dangerous *de facto* permanent facility because the waste will likely never be disposed of in a scientifically viable geologic repository using a reliable isolation system. The ER is inadequate and incomplete because it does not analyze the impacts of the spent fuel being left at the Holtec site indefinitely. The NRC must include such an analysis in its draft environmental impact statement (EIS).

The May 2018 Nuclear Waste Technical Review Board (NWTRB) Geological Repository report admits technology does not exist to make a geological repository work even in the short term. And they do not have any idea how they will do that. Unsubstantiated hope is not a plan. It's time for DOE to admit to the world that they have no short-term solution, let alone a long-term solution for a permanent repository.[2]

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[2] *NWTRB Geologic Repositories: Performance Monitoring and Retrievability of Emplaced High-Level Radioactive Waste and Spent Nuclear Fuel,* May 2018 http://www.nwtrb.gov/docs/defaultsource/reports/nwtrb_perfmonitoring.pdf?sfvrsn=6

More Alternatives Must Be Analyzed
Keeping the spent fuel casks in some form of Hardened On Site Storage (HOSS) on the reactor sites must be analyzed. It is not included in the DEIS's comparison of the safety and cost impacts of the Holtec CIS relative to keeping the waste safely on site. The NRC must also include such an analysis in its draft EIS.

The alternative of consolidated storage being done at an existing licensed Independent Spent Fuel Storage Facility (ISFSI) must be analyzed. According to the NRC website, there are 64 reactor sites with general-licensed ISFSIs in various part of the nation. The ER must analyze why one or more of those sites could not provide some or all of the consolidated storage proposed by Holtec. The NRC must also include such an analysis in its draft EIS.

The DEIS Inadequately Discusses the Transportation Risks and Must Thoroughly Analyze All Transportation Options
The U.S. Nuclear Regulatory Commission's (NRC) evaluation of the environmental impacts of building and operating a Consolidated Interim Storage Facility (CISF) at the proposed site in Southeast New Mexico leads to very high-risk shipping of the irradiated nuclear fuel that is an unavoidable aspect, with LARGE impact, that is part and parcel of this Holtec/ELEA scheme.

The transportation risks given in the DEIS are based on a 4-year old document for another facility. "The incident-free radiological transportation analysis in this ER tiers from the analysis prepared for the proposed WCS CIS Facility in Andrews County, Texas. To analyze the transportation risks for this DEIS, Holtec simply took the WCS report and multiplied by 2.5 times. The transportation risks are based on three sample routes to only three reactor sites, which are supposed to represent all the routes to all the reactor sites. Yet, Holtec proposes to bring ALL of the nation's spent fuel at all of the commercial reactors.

This DEIS must include transportation routes and the potential impacts of accidents or terrorism incidents on public health and safety along all the routes. The DEIS states that high-level radioactive waste would be transported for more than 20 years. Even one small accident would be one too many. Terrorist acts involving radioactive waste in a large metroplex could have extremely high consequences, which must be analyzed.

The DEIS is inadequate and incomplete because it does not include an adequate analysis of all transportation routes and modes from all reactors. The DEIS is inadequate and incomplete because it does not discuss how rail shipments from reactors without rail access would be accomplished and the risks and impacts of such shipments. The NRC draft EIS must also analyze these transportation risks and impacts, if the licensing process continues.

Since this is supposedly a "storage" site and not a "disposal" site, at some future point the spent fuel will need to be removed and sent to a permanent disposal site, thus doubling the

transportation risk stated in this DEIS. The DEIS is inadequate and incomplete because it does not include an analysis of such additional transportation routes, risks, and impacts.

The Exact Numbers Must Be Given, Understood, and Analyzed

Holtec/ELEA has proposed moving 173,000+ metric tons of commercial irradiated nuclear fuel. Holtec/ELEA cites the figure of 120,000 metric tons. But in fact, multiplying the first phase of 8,680 metric tons of uranium -- as described in NRC's March 30, 2018 Federal Register Notice -- by 20 phases, over 20 years, as Holtec proposes, that would mean not 100,000, nor 120,000, but rather 173,000 metric tons of commercial irradiated nuclear fuel!

The Holtec/ELEA proposal is significantly larger than even the Yucca scheme. Yucca was and is limited by law to a grand total of 70,000 metric tons of highly radioactive waste. Only 63,000 metric tons of that figure (90% of the overall limit) could be commercial irradiated nuclear fuel. (The other 10% would be DOE irradiated nuclear fuel and high-level radioactive waste, as from research and overseas reactors, and vitrified military reprocessing wastes.)

The Consequences to an Accident-Exposed Individual Must Be Analyzed

Terms like "collective dose risk" and "person-rem" are used to ignore the potential impacts to a single individual. The ER even states, "Because the risks are for the entire population of individuals along the transportation routes, the risk to any single individual would be small." (Pg. 201) This is no excuse to not state the impacts and doses to the individual. The ER is therefore inadequate and incomplete.

We do not consent that HOLTEC/ELEA proposes to establish, operate, and sustain such a facility as proposed without a comprehensive public health assessment performed by the Centers for Disease Control and Prevention or the National Institutes of Health. It is our belief that such an assessment has not been performed and that the current hazards and health effects may unnecessarily endanger Lea and Eddy County populations. The environment there is already saturated through mining and extraction industries.

Threats from Transporting Irradiated Nuclear Fuel Must Be Analyzed in this DEIS

Not only New Mexico would be adversely impacted by the Holtec project: all communities along the transportation routes between nuclear power plants and Holtec's proposed CISF site would be threatened by radiation from the rail cars, and from the devastating financial and environmental damage if an accident or act of malice should occur. Studies have shown that one accident is likely to occur for every 10,000 shipments. It is irresponsible and dangerous for NRC to avoid adequate inclusion (a "hard look," as legally required by the National Environmental Policy Act) of these mammoth risks and liabilities in its DEIS for Holtec's application.

We disagree that cumulative impacts of transportation to the CISF should be classified as SMALL (defined by the DEIS as having "environmental effects that are not detectable, or are so minor they would neither destabilize nor noticeably alter any important attribute of the resource") as indicated under section 5.3. The DEIS states that a transportation timeframe analysis of 2017 to 2060 is too short for long-lived radioactive material hazards. Transportation risks must not be ignored.

In Transportation Section 5.3 "The NRC staff do not anticipate transportation impacts on the main rail, because of SNF shipments to the proposed CISF." Why are railway conditions not assessed for transporting radioactive materials? The 2017 Infrastructure Report Card by the American Society of Civil Engineers grades US rail infrastructure as a D+. Since little work has been done since 2017, the grade may be lower. It is stated under Transportation Section 5.3 that radioactive doses from the CISF and nearby radioactive materials transportation activities are additive and therefore these could be harmful to human health—causing latent cancer fatalities (LCF). We disagree that the potential cumulative public dose impacts would be SMALL. In the summary for Transportation Section 5.3 it is stated that radioactive effects resulting from facilities emitting radioactivity and any transportation is SMALL. We disagree because of their overall cumulative impacts of radioactivity from facilities and transportation activity is spread out and long-lived.

Transportation of All Cask Types Must Be Analyzed

None of today's certified waste containers are designed for real world transport conditions (temperatures, crash speeds, submersion in water) and have not been physically tested despite dump promoters' misuse of 40-year-old crash test videos on totally different casks. The storage containers cannot be monitored for potential cracks and leaks, inspected, repaired or replaced even though we know the waste will be dangerous longer than they will last. The technology is in the "future" according to NRC staff. The Nuclear Regulatory Commission (NRC) should include evaluation of moving 10's of 1000's of shipments of the most deadly radioactive waste in super-heavy, inadequate containers over deteriorating railroad tracks, roads and bridges…impacts from many thousands of shipments on infrastructure, on people, businesses, communities and resources all along the way.

Cracked and Leaking Casks Must Be Addressed

The DEIS does not analyze exactly how radioactive waste from a cracked and leaking canister would be handled, since there is no wet pool or hot cell at the site. If a cask arriving at the site is cracking or leaked, it might not be allowed to "return canisters." The DEIS is inadequate and incomplete because it does not analyze these situations. The NRC draft EIS must include such an analysis.

We do not consent to containers, in violation of quality assurance and quality control (QA/QC) standards, being used to ship highly radioactive waste. Commonwealth Edison/Exelon whistleblower Oscar Shirani, and NRC Midwest Region dry cask storage inspector, Dr. Ross Landsman, revealed major QA/QC violations with Holtec casks, 15

years ago. They questioned the structural integrity of Holtec casks *sitting still, going zero miles per hour*, let alone at 60 mph -- or faster -- on the rail lines. NRC has never adequately addressed these QA violations, so we have to assume they have continued right up to the present.

Holtec containers have received an NRC rubber-stamp permit not only for on-site storage at more than a third of U.S. reactors, but also for rail/barge/heavy haul truck transport. To make matters worse, Holtec is the lead partner in the scheme to establish the parking lot dump targeted at New Mexico.

Cumulative Impacts Must Be Analyzed in More Depth

The DEIS is inadequate because it fails to consider cumulative impacts from the damage the nuclear industry has already inflicted on New Mexicans for the past 75 years: uranium mining and milling in the northwest on indigenous Diné and Pueblo lands, including the 1979 Church Rock Disaster; radioactive contamination to Tewa lands and people since the Manhattan Project in the Los Alamos area; fallout on downwinders from the Trinity Test in the Tularosa Basin; the Waste Isolation Pilot Plant, which has already accidentally released dangerous amounts of radiation and now wants to expand; the URENCO uranium enrichment plant in Eunice; the world's likely largest nuclear warhead stockpile on the edge of Albuquerque; and the toxic threat to Albuquerque's aquifer by DOE's Mixed Waste Landfill.

Rather than adding 173,600 metric tons of high-level radioactive waste to a state that has already been unfairly overburdened, the United States should be directing its resources towards cleaning up the contamination already present in New Mexico communities, just compensation and holistic community health studies. The DEIS also fails to account for cumulative impacts from the other proposal for Consolidated Interim Storage, approximately 38 miles east at the current Waste Control Specialists low-level radioactive waste dump in Andrews County, Texas, very near Eunice, New Mexico.

The cumulative impact analysis in the DEIS is limited to a 50 miles radius area. It should be more because nuclear waste storage not only affects onsite environment but affects transportation corridors bringing nuclear waste to the CISF. The cumulative impact analysis of transporting nuclear waste from sites around the nation has to be considered beyond the geographic limit of a 50-mile radius.

The ER mentions WIPP but does not analyze the impacts of a radiologic release from WIPP on the proposed CIS site. This must be done along with analyzing the impacts of an expanded WIPP, which is all too reasonably foreseeable. Also, expanded military flight tests are being proposed for the area.

We do not consent to the targeting of DOE sites, already heavily contaminated with radioactivity and burdened with high-level radioactive waste, to become "parking lot dumps" for the importation of other sites' or reactors' wastes. The proposal to open a "parking lot dump" in Eddy-Lea Counties in extreme southeastern New Mexico, near the

Waste Isolation Pilot Project (WIPP), is a case in point. WIPP is the U.S. national dump-site, in a salt formation 2,000 feet below ground, for transuranic contaminated radioactive wastes from the U.S. nuclear weapons complex. Although DOE assured the public that WIPP could not possibly leak in the first 10,000 years, and would leak at most once in the first 200,000 years, WIPP suffered a transuranic radioactive waste leak to the environment in year 15 of its operations, on Valentine's Day, 2014. Nearly two-dozen workers at the surface suffered inhalation doses of ultra-hazardous, alpha-emitting substances, including plutonium. Transuranics also fell out downwind, to be further distributed by wind and rain over time. The burst of a single drum 2,000 feet underground caused the radioactive release. The root cause of the burst was a chemical reaction due to the mixing of chemically reactive nitrates and lead in with the radioactive wastes, which sparked the ignition. The fire was sustained by the inclusion of organic (meaning fibrous, plant-based) *kitty litter*, meant to absorb liquids. The burst of the single drum completely shut down WIPP for three years. DOE estimates the recovery cost at $500 million; the *L.A. Times* estimates one billion dollars. Estimates of two billion dollars can be found in the fine print of DOE documents.

The Holtec/ELEA site is located 16 from the WIPP site. Impacts of releases from these two sites on each other must be analyzed.

We do not consent to a *de facto* permanent surface storage "parking lot dump" targeted at Waste Control Specialists, LLC (WCS) in Andrews County, Texas – right on the state line at Eunice, NM. WCS applied to NRC for a CISF construction and operation license on April 28, 2016. WCS already dumps all categories of so-called "low" level radioactive waste – Class A, B, and C – into the ground, either directly above, or immediately adjacent to, the Ogallala Aquifer. The Ogallala Aquifer serves as a vital supply of drinking and irrigation water for numerous states on the Great Plains, from Texas to South Dakota, including parts of eastern NM. WCS effectively serves as a national dump site for such radioactive wastes. (Several state environmental agency staffers resigned their career jobs in protest over the outrageous decision to allow WCS to open for "low" level radioactive waste dumping in the first place.) WCS also accepted many scores of barrels from Los Alamos Nuclear Lab in New Mexico, containing the same volatile mix as burst in the WIPP underground in 2014.

Already, the potentially bursting barrels have sat out in the hot summer sun at WCS for four years, with no end in sight. Heat fueling a chemical reaction, igniting combustibles, and pressure build-up, is the entire problem with the burst risk. If one or more drums burst at WCS, into the open air of the surface environment, the releases of plutonium and other ultra-hazardous transuranic radioactive wastes could be significantly worse, in terms of downwind and downstream fallout, than the 2014 WIPP release. That release originated 2,000 feet below ground and had to follow a long, circuitous path, through thousands of feet of horizontal burial caverns and tunnels, as well as thousands of feet of vertical ventilation shaft, to reach the surface environment, and fallout over a wide area downwind. The drums at WCS are *at* the surface environment! WCS accepting these potentially explosive drums in such a great big hurry in the first place, without even knowing the risks they were getting into, shows what a careless company it is. It cannot and should not be trusted to store highly

radioactive waste, not even temporarily (although "interim" is a deception – the storage would become very long term, perhaps even permanent).

Radiation Monitoring Must Be Continuous

Under Section 7 - RADIOLOGIC MONITORING AND REPORTING, the monitoring will be collected quarterly. This is grossly insufficient - - monitoring data must be collected at least daily. In addition, the summary report is due yearly, which is too long for the public to wait to know if radiation has been released. Real time radiation monitors should be placed outside the facility based on wind patterns and between the site and towns and cities. When the WIPP release occurred, there was no monitor between WIPP and Roswell and therefore no way to know how it affected the city.

Holtec claims that because the casks are sealed and welded shut there will be no radiation exposure into the air. This is their reason for stating that no radiation exposure into the air will occur and continuous radiation monitors will not be used unless deemed necessary. We disagree because:

1) Radiation can escape casks, depending on the type of radiation and the material that the cask is made of.

2) To wait on monitoring until something is "deemed necessary" is reckless. When dealing with radioactive waste, setting up redundant safety systems before an incident is necessary and should never happen after the fact.

3) Holtec canisters are routinely scratched and cracked routinely every time they are moved, and they will be moved several times before they reach the site (NRC inspection Report & Notice of Violation, ML 18332A357, pp. 8-9, 11/28/18). Transporting the casks from the original power plant site to the CIS site requires at least 4 movements of canister to transport overpack casks; movement later to a permanent repository increases that to at least 8 times, and 4 of these after 40 + years to degrade.

4) The 1987 Amendment to the Waste Policy Act states that transported nuclear waste must be "retrievable" for inspection, which welded casks do not allow, meaning that radiation releases may not be known when there is time to correct them.

An Accident Cost Must Be Estimated

Section 8 of the DEIS states that, "…at this time the safety analysis has not identified any credible accidents. Therefore, this EIS will not estimate the cost of an accident specific to this proposed CISF." It defies logic to state that Holtec can't identify any credible accidents. All risks must be identified and assigned costs and it must be done before the license application is approved. To assume an accident will not happen when transporting and storing radioactive waste is the height of hubris on the part of Holtec and the NRC if it approves this. In Japan, no one thought a tsunami from an earthquake would cause a nuclear disaster.

All Environmental Impacts Must be Analyzed

Section 9 of this DEIS completely fails to mention the transportation of 173,600 MT of high-level nuclear waste as having any environmental consequences. The DEIS is incomplete until this analysis is included. The DEIS states that soils will be replaced during decommissioning. Replacement soil, an essential resource that requires long time frames to form, will have to be taken from somewhere else. This is not a SMALL impact for the area where it is taken from.

Holtec claims that they cannot predict the improvement to be expected from the decommissioning and reclamation work and also claim that new technologies may greatly improve reclamation. This is a ludicrous claim and shows the same reasoning that created the radioactive waste problem in the first place. The idea that new technology will somehow solve a problem in the future that we can't solve today is irresponsible. That may indeed come true, but to bet new generations of people on a guess should not be part of an EIS. Our parents' generation, and now ours, has already promised future generations that, somehow, we will have a magical technology that will allow us to change the nature of radioactive decay and its effects on the environment. We should have learned from this illogical thinking and it should not be condoned in HOLTEC's rationalizations.

Risks of Loss of Institutional Control Must Be Analyzed

DOE warned in its Feb. 2002 Final Environmental Impact Statement (EIS) on the proposed Yucca Mountain, Nevada national burial dump for highly radioactive wastes, that loss of institutional control over surface storage sites would eventually prove catastrophic. Loss of institutional control means societal breakdown, so that maintenance, repair, and replacement of infrastructure and storage containers at Holtec/ELEA would be lost over long enough periods of time – in fact, even basic knowledge of the existence of the facility itself there could be entirely lost/forgotten someday!

Entropy means that things falls apart, over long enough periods of time. It is the second law of thermodynamics, after all! DOE was focused on this happening at nuclear power plant sites, if irradiated nuclear fuel was abandoned there forever. But the same is true here. DOE used the argument in its Yucca FEIS as a way of pressuring states (and their congressional delegations) to support the proposed Nevada dumpsite, lest such a catastrophe unfold in their own jurisdictions and districts over time. The prevailing national environmental movement consensus since 2002 has been for Hardened On-Site Storage (HOSS), as close as possible to the point of generation, in order to prevent such radioactive releases at reactor sites.[3]

Impacts Of Future Railroads and Electric Lines Must Be Analyzed

The railroads and electric lines are not in place, but must be analyzed. Locations of electrical lines and estimates on electric use must be given. Locations of railroad lines and impacts of railroad construction, including upgrading existing tracks that cannot handle the weight of the HI-STAR 190 transport cask, must be given. The ER is incomplete and inadequate. The NRC

[3] See the Statement of Principles for Safeguarding Nuclear Waste at Reactors

draft EIS must analyze these issues, if the licensing process proceeds (which it shouldn't because as previously explained it does not have a legal foundation).

Environmental Injustice Must Be Addressed and Analyzed

We do not consent to the environmental injustice and radioactive racism of yet again targeting low-income communities of color with the most hazardous substances ever created, i.e., highly radioactive irradiated nuclear fuel.

For their part, the Holtec/ELEA CISF in NM, and the WCS, TX CISF, are targeted at the same area. They are but 38 miles from each other. The area has numerous communities that are majority Hispanic. The area is already heavily polluted by both the fossil fuel and the nuclear industry. There are significant poverty rates amongst certain communities in this area as well. In fact, the State of New Mexico as a whole ranks towards the very bottom of a broad spectrum of socio-economic wellness indicators, in comparison to the other 49 states.

This attempt by Holtec/ELEA, as well as WCS, to turn this area of Southeast NM and West TX into a nuclear sacrifice area, is a textbook example of environmental injustice, or radioactive racism. This is all the more clear when the large number of radioactive contamination sites documented on the Sacred Trust NM state map is taken into account. As one of the poorest states, and a majority minority state, New Mexico has experienced environmental racism for decades. People of Color continue to be disproportionately impacted by hazardous and toxic wastes." (Samia Assed, Chair of the New Mexico Poor People's Campaign; see: www.nonuclearwaste.org) NRC should assess the multiple stresses on New Mexicans and failures to compensate them over the history of the atomic age.

Economic Injustice Must Be Addressed and Analyzed

The proposed area has valuable industries including pecan, cattle ranches, dairy, and other local farming interests that would be threatened by a CIS site. Even some of the hazardous and extractive industries that are a big part of the economy oppose the dump. New Mexico has suffered enough as a national sacrifice zone at the hands of the nuclear industry, including abandoned uranium mines, the Manhattan Project, Trinity Test, plutonium contamination in the rivers downstream from Los Alamos, uranium enrichment, and hosting the nation's transuranic waste at the Waste Isolation Pilot Plant.

Threats to Cultural Properties & Historic Sites Must Be Analyzed

Holtec International and the NRC would have us believe that the site is a desolate, uninhabited place with "no historic value or significance." This statement is completely false and without merit. The site is located near or on two lagunas or playa lakes: Laguna Gatuna and Laguna Plata. Laguna Plata is an archaeological district that has been extensively studied for decades. Two sites near Laguna Gatuna, where the nuclear waste is proposed to be stored, are listed on the National Register of Historic Places. Archaeologists have found a plethora of evidence of the Jornada Mogollon people, dating from 200 AD, 700 AD, and 1200 AD. More than 200

archeological sites are located within six miles of the proposed nuclear waste dump. Laguna Gatuna, while often dry, fills with water after monsoon rains, attracting a variety of wildlife and hunters for millennia. The Hopi and Mescalero Apache nations have identified the area as culturally significant to them, and the Hopi nation has informed the NRC that traditional cultural properties could be adversely affected if this project proceeds. The site where Holtec wants to dump tens of thousands of tons of radioactive waste has profound historic value and significance.

Emergency Response Must Be Analyzed

This DEIS should assess and report on the reliability and capability of volunteer and distantly-located emergency response personnel upon which the site will rely. Include availability, training, equipping and notification of emergency responders along all the routes.

Specific Monitoring Plans Must Be Included

DOE has identified waste storage performance confirmation activities, including seepage monitoring and waste package monitoring. Seepage monitoring would evaluate the spatial and temporal distribution of seepage flux into the repository under ambient and thermally perturbed conditions. It also would analyze the chemistry of any collected waters.

Waste package monitoring would include remote monitoring of external corrosion of waste packages. Most existing sensors have relatively short lives and make point rather than spatially distributed measurements. They are designed for near-surface applications, lack the ability to self-calibrate, show long-term instrumental drift, require power for long-term operation, and need to be radiation- and heat-hardened. Work to improve currently available technologies will take a sustained research, development, and demonstration program over many years.

In the case of vadose zone monitoring, technology needs to be developed to measure moisture content and matric potential, two properties used to estimate seepage flux, continuously over long distances and at greater depths and harsher (high temperature, high radiation) environments than at the relatively shallow depths for which current sensors have been developed.

Proposed legislation, such as H.R. 3053 and current appropriations bills would remove these and other safety requirements from the 1982 Nuclear Waste Policy Act (NWPA), the current law. Instead that law should be changed or another law written to require that the Nuclear Regulatory Commission comply with current NWPA and NWTRB safety requirements. The NWPA only applies to the Department of Energy. Long-term research, development, and demonstration of monitoring and sensor technologies are needed to address current technology limitations[4].

[4] *NWTRB Geologic Repositories: Performance Monitoring and Retrievability of Emplaced High-Level Radioactive Waste and Spent Nuclear Fuel,* May 2018

All Potential Threats to Water & Wildlife Must Be Analyzed in Depth
The impact of this forever deadly nuclear waste would have devastating consequences on wildlife including threatened species that rely on the lagunas for drinking water and the surrounding area as a critical habitat, including the Lesser Prairie Chicken and the Dunes Sagebrush Lizard. Agencies such as U.S. Fish & Wildlife, New Mexico Game & Fish, the U.S. Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) have all gone on record attesting to the significance of Laguna Gatuna for migratory birds, and have argued that it should be designated permanently as a Water of the United States (WOTUS), which would make it eligible for protection under the Clean Water Act.

Impacts To The Lesser Prairie Chicken Must Be Analyzed
The proposed Holtec site is in an area that owners voluntarily set aside land for the Lesser Prairie Chicken in an attempt to keep the Lesser Prairie Chicken off of the Endangered Species List. Please analyze the impacts of this Holtec scheme on the Lesser Prairie Chicken and what steps will be taken to keep it off of the Endangered Species List.

Sincerely,
Scott Kovac
Research Director
Nuclear Watch NM

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http://www.nwtrb.gov/docs/default-source/reports/nwtrb_perfmonitoring.pdf?sfvrsn=6