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

Submitted online at:
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RE: Docket ID NRC-2016-0231/Report Number NUREG-2239, the U.S. Nuclear Regulatory Commission's Interim Storage Partners/Waste Control Specialists Consolidated Interim Storage Facility Draft Environmental Impact Statement

Dear U.S. Nuclear Regulatory Commission (NRC) Commissioners and Staff,

We respectfully submit these comments in response to the Draft Environmental Impact Statement (Docket ID NRC-2016-0231) regarding Interim Storage Partner's (ISP) application for a license to build and operate a “Consolidated Interim Storage Facility for Spent Nuclear Fuel in Andrews County, Texas” (NUREG-2239), which plans to bring at least 40,000 metric tons of spent fuel, high-level radioactive waste, from nuclear reactors around the country to west Texas. Please know that we do not consent to our region becoming a national radioactive high-level waste dumping ground or to transporting up to thousands of canisters of 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.

We oppose Interim Storage Partners at Waste Control Specialists’ (ISP/WCS’s) proposal and ask that the NRC halt this licensing in order to protect public health and safety, the environment and our economy. It appears from the Draft Environmental Impact Statement (DEIS) and other license application documents that there would be no dry cask transfer facility (Dry Transfer System, DTS) at the proposed site, which means there would be no way to repackage waste. The site is not designed for long-term high-level disposal, and a dangerous *de facto* permanent surface dump could result if waste casks or canisters are damaged or corroded and cannot be moved. With the scientifically unsound proposed Yucca Mountain radioactive waste dump now canceled, the danger of "interim" storage increases. As if all this weren’t enough, the NRC short-circuited the democratic process, holding poorly run conference calls for public comment during the pandemic instead of waiting until after the pandemic and holding proper public meetings.

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Our Region 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 ISP/WCS 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 residents who commented during the NRC’s environmental scoping period and during the online public comment opportunities in vehemently opposing bringing the nation’s high level radioactive waste from nuclear power plants through our communities to west Texas. We do not consent to our region becoming a nuclear wasteland for millions of years.

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. The growing groundswell of public opposition in New Mexico, Texas, and beyond to this and other CISF schemes, shows that the public does NOT consent.

The Whole Picture Must Be Analyzed

ISP's application to store radioactive waste in Texas would bring in 40,000 tons of irradiated nuclear fuel from nuclear reactors around the country. Ninety% of those reactors and their irradiated nuclear fuel are in the eastern half of the country. Alternative sites must be analyzed. NRC must consider lessons learned from past accidents and the potential for future radioactive waste accidents to cost hundreds of millions to billions of dollars to clean up. NRC must address the open secret that Orano/Areva may have desires to reprocess the irradiated nuclear fuel, which would cause large-scale releases of hazardous radioactivity to the environment.

NRC 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

ISP/WCS, as well as NRC, may be assuming that Yucca Mountain will be the permanent high-level waste dump. This is wrong and unacceptable. Yucca Mountain is on Western Shoshone land. The 33-year long attempt to dump highly radioactive wastes there is a violation of the "peace and friendship" Treaty of Ruby Valley of 1863, signed by the U.S. government with the Western Shoshone, with treaties between sovereign states enshrined in the U.S. Constitution as the highest laws of the land. It is also an environmental justice violation, considering the deadly radioactive fallout already suffered by the Western Shoshone, and others, downwind and downstream from the Nevada Nuclear Weapons Test Site. Just like ISP's proposed facility, the Yucca dump would not be consent-based, scientifically-suitable, regionally equitable, or intergenerationally equitable. This leaves the nation with no HLW dump site.

This plan would also target a Latinx community with forever deadly highly radioactive waste. The waste would be stored above ground in a region prone to earthquakes, sinkholes, temperature extremes, wildfires, and intense storms and flooding, all of which can increase contamination risks. ISP's scheme would exacerbate existing environmental injustice and threats to the Ogallala and other aquifers. WCS is already a national dump for so-called "low-level" radioactive wastes and other hazardous materials. NRC must analyze the

disproportionate impacts to low-income communities of color (environmental justice communities) in the American Southwest and along transport routes there and nationwide.

It appears that the United States wants to make this area a nuclear wasteland. New Mexico ranks as one of the poorest states and is a majority minority state, with more Black, Indigenous, 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 our region or to expand the massive nuclear burden we already bear.

This ISP/WCS Proposed Project is Illegal

Consolidated Interim Storage Facilities (CISFs) are an illegal approach that does not solve the highly radioactive waste problem. The Nuclear Waste Policy Act of 1982, as Amended, prohibits the U.S. Department of Energy (DOE) from taking ownership of commercial irradiated nuclear fuel, unless and until a permanent repository is licensed and operational. In illegally considering this application, the NRC has ignored expert testimony, widespread local, regional, and even national opposition, and many tens of thousands of written and oral comments. So, the federal government cannot pay for transportation and storage of the waste, as ISP/WCS 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. 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. ***The NRC should not proceed 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 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, 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 earliest opening of a permanent burial dump are by 2048, 30 years from now, although they don't know by 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 ISP/WCS'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

ISP/WCS is using this proposed plan as a for-profit scheme. This is an example of the tail wagging the dog. NRC must 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 ISP/WCS 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. Will the federal taxpayers be stuck with the bill if the U.S. Department of Energy (DOE) must pay all the bills? Or will it be the nuclear electricity ratepayers, if ISP/WCS's lobbyists can finagle access to the monies remaining in the Nuclear Waste Fund coffers?

ISP/WCS 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; and 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), 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

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

commercial irradiated nuclear fuel generation in the U.S. Thus, consolidated interim storage would be yet another significant public subsidy.

Who Ultimately Pays?

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 ISP/WCS intend to foot the bill for its CISF in west Texas? 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 ISP/WCS 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.

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, as Amended, a.k.a. current law.

This is very risky for U.S. federal taxpayers, 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, as Amended, is to guard against centralized interim storage from becoming a *de facto* permanent, surface storage, “parking lot dump,” the costs, liabilities and risks of which, the U.S. federal taxpayer, and/or nuclear electricity ratepayers, may get stuck with, indefinitely, or forevermore.

This end run around the precautionary linkage between an operating repository, and one or more consolidated interim storage facilities that ISP/WCS 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

NRC must acknowledge that "interim storage" at ISP/WCS could last not only decades or centuries, but forevermore. *De facto* permanent surface storage, combined with eventual container failure and inevitable loss of institutional control, would result in catastrophic

releases of hazardous radioactivity downwind, downstream, up the food chain, and down the generations.

The Environmental Impact Statement (EIS) 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 EIS is inadequate and incomplete because it does not analyze the impacts of the spent fuel being left at the ISP/WCS site indefinitely. The NRC must include such an analysis in its draft environmental impact statement.

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 repository².

More Alternatives Must Be Analyzed

NRC must complete the required alternatives analysis by considering Hardened On-Site Storage (HOSS), at or near reactors, as an alternative to Consolidated Interim Storage. Keeping the spent fuel casks in some form of HOSS on the reactor sites must be analyzed, which is not included in the EIS comparison of the safety and cost impacts of the ISP/WCS CIS. The NRC must also include such a comparative 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 ISP/WCS. The NRC must also include such an analysis in its draft EIS. NRC must also consider the risk of leaks, contamination, sabotage/intentional attacks, or severe transportation accidents.

The DEIS Inadequately Discusses the Transportation Risks and Must Thoroughly Analyze All Transportation Options

Thousands of intensely radioactive shipments, over decades, would travel through most of the states, a vast majority of Congressional districts, mostly by train but also by road and barge on vital waterways. The impacts are not "small." The reports used to make this conclusion are wrong and must be replaced. They underestimate the probability of serious accidents, especially for rail freight and fires.

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

Fires could cause cask lid bolts to stretch. Radioactive gases and particulates could get out via valves or a fire lasting longer and hotter than the mere half-hour and 1,475 degrees Fahrenheit design bases. These and other scenarios could cause cask failure and radioactive releases.

Many transport fires have burned longer than the 1/2-hour or 3 hours NRC considers in its analysis. There are increasing numbers of tankers with flammable chemicals on the rails increasing the likelihood of high-temperature fires.

Hauling nuclear waste is extremely risky. Getting the waste to the proposed site from nuclear power reactors across the country will require the largest nuclear transport campaign in world history--more radioactivity and more shipments than ever before--regularly through our communities for decades! NRC's environmental analysis unjustifiably claims the transport impacts are small and ignore or minimize important environmental dangers.

The NRC has not adequately considered the environmental impacts of transporting nuclear waste to and from the proposed ISP/WCS high level waste storage site in Texas--neither in the cask certification processes nor this draft environmental impact statement. This shortfall is even worse for hotter "high burn up" irradiated fuel which was not considered in most analyses.

We also oppose as unacceptably dangerous the plan to multiply transport risks, and the environmental justice burden, that is inherent in Consolidated Interim Storage. As ISP/WCS itself admitted in its Environmental Report (Revision 2, Chapter 2, Figure 2.6-1, Transportation Routes, Page 2-78), the outbound shipments from the CISF, heading to Yucca Mountain, Nevada for permanent burial, would travel through the very same communities in New Mexico, Texas, and Oklahoma that had already seen the inbound shipments, carrying irradiated nuclear fuel from eastern reactors, to the CISF in the first place. These outbound shipments could number in the several tens of thousands if the irradiated nuclear fuel is repackaged at WCS (itself a hazard to workers and local residents), into smaller-sized TAD (Transport, Aging, and Disposal) containers, required for compliance with DOE's Yucca repository design plans. CIS makes no sense, and would significantly increase transport risks and EJ burdens.

NRC must detail transportation routes and consider nationwide risk to millions of Americans along transport routes. And NRC must consider the risk of leaks, contamination, sabotage/intentional attacks, or severe transportation accidents.

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 west Texas 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 ISP/WCS 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. The

transportation risks are based on sample routes to reactor sites, which are supposed to represent all the routes to all the reactor sites. Yet, ISP/WCS proposes to bring ALL of the 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. 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 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.

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

Not only Texas would be adversely impacted by the ISP/WCS project: all communities along the transportation routes between nuclear power plants and ISP/WCS'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 ISP/WCS's application.

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-promoter's 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. 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, resources all along the way.

Cracked and Leaking Casks Must Be Addressed

NRC must include a plan to repackage leaking waste casks and a plan to move waste when required. 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 a 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

In addition, the URENCO USA uranium enrichment facility is right next to the WCS/ISP site. In fact the two nuclear complexes are on one former ranch that straddled the New Mexico/Texas border. The majority Hispanic town of Eunice, New Mexico -- through which every single one of the 3,400 irradiated nuclear fuel rail casks bound for ISP would pass -- is within just a few miles of the WCS/ISP site. NRC must detail cumulative impacts of the proposed facility and nearby sites -- including the proposed Holtec CISF, URENCO and the Waste Isolation Pilot Plant in New Mexico -- on workers, local residents, and the environment.

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 largest nuclear warhead stockpile on the edge of Albuquerque; and the toxic threat to Albuquerque's aquifer by the Mixed Waste Landfill.

Rather than adding 40,000 metric tons of high-level radioactive waste to a state that has already been grossly 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 cumulative impact analysis in the DEIS is limited to a 50 miles 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 50-mile radius.

The EIS 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 reasonably foreseeable. Also, expanded military flight tests are being proposed for the area. 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 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 IPS/WCS site is located 26 miles from the WIPP site. Impacts of releases from these two sites on each other must be analyzed.

ISP/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 Texas 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 weapons 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 six 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. After all, 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

Monitoring data must be collected at least daily. But the summary report is due yearly, which is too long for the public to wait to know if radiation has been released. Radiation monitors should be placed outside the facility based on wind patterns and between the site and towns and cities.

ISP/WCS 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:

- 1) radiation can escape casks, depending on the type of radiation it is and depending on 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) 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 degrading due to storage.
- 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

This EIS did not estimate the cost of an accident specific to this proposed CISF. It defies logic to state that ISP/WCS 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 ISP/WCS and the NRC if it approves this. NRC must list, explain, analyze, and report in the final EIS all accidents that have occurred at WCS. In Japan, no one thought a tsunami from an earthquake would cause a nuclear disaster.

All Environmental Impacts Must be Analyzed

The draft environmental impact statement (DEIS) fails to adequately assess the environmental impacts of all the types of containers that would be used to transport and store the waste. NRC staff have stated that cask concerns must be addressed when the NRC certifies the casks, but the communities through which the shipments would move and those in the vicinity of the proposed waste storage site have not had the chance to participate in the cask certifications due to timing, lack of notification, and lack of opportunity to engage in an adjudicatory way.

There are 6 dry storage systems, including 16 kinds of canisters proposed for the ISP site. The environmental impacts of each of these have not been fully analyzed. The safety analysis in the certification and the report used for this DEIS are inadequate as they do not require the container to meet real world conditions including the length of time and the temperature of fires, the length of time and depth of immersion in water, and collisions at normal highway and rail speeds. Environmental impacts were not considered in the certifications of the cask designs. The cask certification process is not reasonably accessible for public participation.

The radiation risk numbers NRC uses do not take into account that more females and youths get cancer than adult men from the same amount of radiation. Only cancer and severe birth defects are estimated--No evaluation of other known radiation effects including reduced immunity, autoimmune diseases and heart/cardiovascular disease are considered.

NRC must analyze potential for groundwater contamination, including of the Ogallala and other aquifers.

NRC claims 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 NRC's rationalizations.

Risks of Loss of Institutional Control Must Be Analyzed

DOE warned in its February 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 ISP/WCS could 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 sites³.

Impacts Of Future Railroad Lines Must Be Analyzed

The final railroad lines are not in place, but must be analyzed. 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 EIS is incomplete and inadequate. The NRC draft EIS must analyze these issues, if the licensing process proceeds.

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, highly radioactive irradiated nuclear fuel.

For their part, the Holtec/ELEA CISF in NM, and the ISP/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 proposal may turn this area of Southeast NM and West TX into a nuclear sacrifice area. It 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

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

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

ISP/WCS 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. Archaeologists have found a plethora of evidence of the Jornada Mogollon people, dating from 200 AD, 700 AD, and 1200 AD. 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 ISP/WCS wants to dump tens of thousands of tons of radioactive waste has strong historic value and significance.

Emergency Response Must Be Analyzed

The DEIS must assess and report on the reliability and capability of volunteer and distantly-located emergency response personnel upon which the site will rely, including 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, make point rather than spatially distributed measurements, 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 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 limitations⁴.

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.

For all the above reasons and more, we maintain that the DEIS for ISP/WCS's application is inadequate, and further that the license for the high-level radioactive waste "consolidated interim storage" facility should be denied. In conclusion, highly radioactive wastes from atomic reactors around the U.S. should not be brought to the Texas/New Mexico border – but instead be isolated on or near the current nuclear power plant sites, in Hardened On-Site Storage (HOSS), until there is an environmentally just and scientifically sound option available.

Sincerely,

Sincerely,
Jay Coghlan
Executive Director

Scott Kovac
Research and Operations Director
Nuclear Watch NM

⁴ *NWTRB Geologic Repositories: Performance Monitoring and Retrievalability of Emplaced High-Level Radioactive Waste and Spent Nuclear Fuel*, May 2018
http://www.nwtrb.gov/docs/default-source/reports/nwtrb_perfmonitoring.pdf?sfvrsn=6