March 4, 2022

Re: Notice of Request for Information (RFI) on Using a Consent-Based Siting Process To Identify Federal Interim Storage Facilities, U.S. Department of Energy, Notice, 86 FR 68244, pages 68244-68246, Document Number 2021-25724, December 1, 2021

Public Comments Submitted by a Coalition of Environmental, EJ, and Public Interest Organizations

Comments submitted comments electronically to *consentbasedsiting@hq.doe.gov*. Subject line: "RFI: Consent-Based Siting and Federal Interim Storage"

To: U.S. Department of Energy, Office of Nuclear Energy

Dear U.S. Department of Energy, Office of Nuclear Energy,

On behalf of our XX organizations, and the XX of our members we represent, please find for your consideration our comments, below.

First we respond directly to the questions you posed for comment/response in your Federal Register Notice (see pages 1 to 19 below). After that, we will provide additional comments (see pages 19 to 31 below). Some of them further respond to the questions you posed in your Federal Register Notice. But some of them comment on aspects of federal Consolidated Interim Storage Facilities (CISFs) you did not ask about in your list of Federal Register Notice questions. At the end of the letter, beginning on page 31, organizations endorsing these coalition comments are listed, with individual signature lines.

DIRECT RESPONSES TO/COMMENTS ON THE QUESTIONS DOE POSED IN ITS FEDERAL REGISTER NOTICE

In its Federal Register Notice (< https://www.federalregister.gov/documents/2021/12/01/2021-25724/notice-of-request-for-information-rfi-on-using-a-consent-based-siting-process-to-identify-federal >), DOE has asked a series of questions, re: which it has requested public comment on. Reproduced below are the DOE questions, in bold and underlined. *The italicized text comprises our comments in response*.

[DOE] Questions for Input [from Federal Register Notice, underlined and in bold below]

Given Congressional appropriations to move forward with interim storage activities, we are seeking input on using a consent-based process to site federal interim storage facilities. We will use responses to this RFI [Request for Information], along with comments received in 2017 on the Draft Consent-Based Siting Process (www.energy.gov/ sites/ prod/ files/ 2017/ 01/ f34/ Draft Consent-Based Siting Process and Siting Considerations.pdf) *[sic, the link is broken in DOE's Federal Register Notice]*, to help develop a consent-based siting process for use in siting federal interim storage facilities, the overall strategy for development and operation of an integrated waste management system, and possibly a funding opportunity.

Respondents to this RFI do not need to address every question, but DOE welcomes input in all of the following areas.

Area 1: Consent-Based Siting Process

1. **How should the Department build considerations of social equity and environmental justice into a consent-based siting process?**

Social equity and environmental justice should be a top priority for "consent-based siting" of federal, so-called "consolidated interim storage facilities" (CISFs). It is Orwellian to float the offer of jobs, infrastructure development, and potential funding to BIPOC (Black, Indigenous, People of Color) communities, low-income communities, and such communities already disproportionately impacted by hazardous facilities, and portray it as a social equity and environmental justice advancement. BIPOC, low-income, and already heavily polluted communities should not be further disproportionately impacted with CISFs for one of the most hazardous substances ever generated by human society, highly radioactive irradiated nuclear fuel.

As Keith Lewis, environmental director for the Serpent River (Ojibwe) First Nation near Elliot Lake, Ontario, Canada, is quoted as saying in This Is My Homeland: Stories of the Effects of Nuclear Industries by People of the Serpent River First Nation and the North Shore of Lake Huron (edited by Keith Lewis, Lorraine Rekmans, and Anabel Dwyer; published by Serpent River First Nation, 1998 & 2003) — "There is nothing moral about bribing a starving man with money." He was speaking about the devastation done to his First Nation, and its homeland, by the offer of hazardous uranium mining and milling jobs beginning in 1948, and ending altogether by 1996. The jobs are long since gone, but the devastation goes on. His quote is entirely relevant to highly radioactive wastes as well, such as when DOE targets BIPOC and/or

low-income communities, many times already disproportionately polluted by hazardous industries, with the added hazardous pollution burden of federal CISFs.

DOE itself has a most shameful tradition of targeting Native American reservations for CISFs. See the 2005 NIRS/Public Citizen factsheet, "Radioactive Racism." < posted online at: http://archives.nirs.us/radwaste/scullvalley/historynativecommunitiesnuclearwaste06142005.pdf > This shameful history cannot be repeated now or in the future.

There is also a pattern of federal CISF schemes turning into private CISF schemes, such as the Private Fuel Storage, LLC CISF, targeted at the Skull Valley Goshutes Indian Reservation in Utah. < see: http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm > Currently, so-called "private" CISFs targeting New Mexico and Texas could effectively become federalized, if DOE pays all costs (using federal taxpayer money, and/or perhaps even nuclear ratepayer funds from the Nuclear Waste Fund, which are supposed to only be used for permanent disposal, not for interim storage), including a hefty profit margin to the private owners. However, such an arrangement is illegal. The Nuclear Waste Policy Act of 1982, as Amended, prohibits DOE from taking title to/ownership of commercial irradiated nuclear fuel at a private CISF, unless and until a permanent repository is licensed and operating.

Significantly, New Mexico is a majority minority (Latinx, Indigenous) state, with widespread poverty issues. It is also disproportionately impacted by nuclear and fossil fuel industrial pollution, and other hazardous industries. Such disproportionate impacts are especially acute at the Holtec, NM and Interim Storage Partners, TX CISF sites (the latter just 0.37 miles from the NM state line, and upstream). These disproportionate impacts are compounded by the two supposedly "private" CISFs, proposed to "temporarily store" a grand total of up to 213,600 metric tons of commercial irradiated nuclear fuel and highly radioactive waste (more than twice the amount that currently exists in the U.S.), being located just 40-some miles apart. These proposed "private" CISFs are an attempt to turn the TX/NM borderlands into a high-level radioactive waste dump, a national sacrifice area. We say "supposedly private," because both license applications leave open the possibility that DOE itself would be the sole customer, paying all costs — effectively representing a title transfer for the irradiated nuclear fuel, from private companies, to DOE. Such a title transfer is illegal, per the Nuclear Waste Policy Act of 1982, as Amended, unless and until a permanent geologic repository is licensed, open, and operating.

See Beyond Nuclear's series of eight fact sheets, expressing opposition to the TX and NM CISF schemes, including to DOE's illegal potential key involvement in them: < http://archive.beyondnuclear.org/centralized-storage/2021/9/11/new-beyond-nuclear-fact-sheets-opposing-consolidated-interim.html >.

2. What role should Tribal, State, and local governments and officials play in determining consent for a community to host a federal interim storage facility?

Tribal, state, and local governments should have free, and fully-informed, consent-based siting rights, including an absolute veto against a federal CISF. That is, tribal, state, and local governments should have fully-informed, absolute, binding, and final rights to non-consent. Any

DOE, or private, scheme to construct and operate a CISF must cease and desist immediately, once tribal, state, and/or local government "hosts" express their non-consent. In addition, consent-based siting rights should extend directly to the citizens/residents of the tribal reservation, state, and/or locality. Free, and fully-informed, consent-based siting rights should extend to citizens/residents, who should also have absolute and final veto rights to block CISFs.

For example, the Saugeen Ojibwe Nation in Ontario, by an 86% to 14% tribal referendum vote in January 2020, blocked the construction and operation of a permanent repository for all of Ontario's so-called "low-," and highly radioactive intermediate-, level radioactive wastes.

Free, and fully-informed, consent rights to consent, or not consent, should be extended as widely as possible, including to the public, not just to elected or appointed government leaders. And such free, fully-informed consent, with absolute and final state veto power, should also extend to permanent repositories, not just CISFs, as the Nevada U.S. congressional delegation has asserted for the past several years, with its re-introduction each congressional session of the Nuclear Waste Informed Consent Act.

3. What benefits or opportunities could encourage local, State, and Tribal governments to consider engaging with the Department as it works to identify federal interim storage sites?

As mentioned above, the idea that jobs, infrastructure development, and/or potential funding, associated with the construction and operation of a CISF, is not compatible with environmental justice and social equity, when the CISF is targeted at BIPOC and/or low-income communities, already heavily polluted by nuclear and/or other hazardous industries. Thus, DOE should cease and desist from targeting BIPOC, low-income, and/or already heavily polluted communities for CISFs.

Instead, the benefits and opportunities that DOE should be extending to local, state, and/or tribal governments, in line with environmental justice and social equity, should be renewable energy and energy efficiency, as well as clean up and remediation, in nature. DOE should shift resources from the dead end that is promotion of the nuclear power industry and its dirty, dangerous, and expensive agenda, and instead promote renewables, such as wind and solar power, as well as energy efficiency. And DOE should shift resources from the promotion of nuclear power, to the clean up and remediation of past radiological contamination messes. As Winona LaDuke of Honor the Earth has put it, "The first rule in kindergarten is, you have to clean up your last mess, before you get to make a new one."

In 2012, at a hearing of the U.S. Senate Energy and Natural Resources Committee, focused on legislation to implement the Blue Ribbon Commission on America's Nuclear Future's (BRC) recently released Final Report (published in Jan. 2012), U.S. Senator Risch (R-ID) made a cynical joke. He said that "consent-based siting," recommended by the BRC, really meant financial incentives. Sen. Risch's cynical remark was very telling and revealing. And objectionable. DOE's "consent-based siting" cannot be a thinly veiled PR (public relations) ploy to "get to yes" on CISFs. Legalized bribery is unacceptable, and in this case an EJ violation. As Keith Lewis of Serpent River First Nation was quoted above, "There is nothing moral about

bribing a starving man with money." It would fly in the face of the Biden administration's own rhetoric about prioritization of EJ principles, rhetoric that Energy Secretary Granholm and Principal Deputy Assistant Secretary Huff have themselves invoked.

4. What are barriers or impediments to successful siting of federal interim storage facilities using a consent-based process and how could they be addressed?

As DOE Office of Nuclear Energy's own Blue Ribbon Commission on America's Nuclear Future (BRC) recommended in its Final Report in January 2012, DOE should no longer be in charge of irradiated nuclear fuel and highly radioactive waste management. A major reason for the public's irreparable loss of trust in DOE is its incompetence, or worse, at managing irradiated nuclear fuel and highly radioactive waste over decades past. Hence DOE must be replaced. This recommendation was as much of an overarching priority as the need for "consent-based siting" itself. This of course represents a major barrier and impediment to DOE's attempt to site federal CISFs, even supposedly using a "consent-based" process. DOE should not be advancing this Request for Information and public comment proceeding. Any such initiatives should be left to the replacement agency, organization, or body, advocated by BRC a decade ago. Why is DOE driving this train, when its very own BRC strongly recommended DOE be replaced in the driver's seat?

5. How should the Department work with local communities to establish reasonable expectations and plans concerning the duration of storage at federal interim storage facilities?

As an important part of fully-informed consent-based siting of CISFs, DOE should clearly admit to potential host communities that so-called "interim storage" facilities could easily become de facto permanent surface storage, de facto permanent surface disposal, or parking lot dumps. Given that highly radioactive wastes, such as irradiated nuclear fuel, remain hazardous for at least a million years (as acknowledged by the U.S. Environmental Protection Agency, in its court-ordered rewrite of its Yucca Mountain regulations, published in 2008), containers and facilities will degrade and fail, unless regularly replaced. The U.S. Nuclear Regulatory Commission assumed, in its 2014 Generic Environmental Impact Statement on Continued Storage of Spent Nuclear Fuel (previously called the Nuclear Waste Confidence Rule), that CISFs, once constructed and operating, would be replaced in their entirety, once every hundred years. So communities targeted by DOE for federal CISFs must be fully informed that the high risks of highly radioactive wastes will persist for at least a million years, and that unless the CISFs are replaced once per century in their entirety, those radioactive hazards would be unleashed into the local environment, to blow with the wind, flow with the water, and cause harm, downwind, downstream, up the food chain, and down countless generations into the future.

One million years of "interim" storage at a CISF would require 10,000 complete replacements of the CISF, per NRC's logic. The problem is, NRC has not indicated where the funding would come from to do that. Nor has DOE. Nor has the nuclear power industry. And such a flippant assumption, that CISFs in their entirety would be replaced, once per century, flies in the face of

the inevitability of loss of institutional control, over a much shorter timeframe. Even NRC Chairman Allison Macfarlane warned about the danger of the inevitable loss of institutional control, when NRC approved its Continued Storage GEIS and Rule in 2014.

In a previous DOE RFI regarding CISFs, none other than Holtec International itself advised DOE that "interim" has to be assumed to last at least 300 years. Per the NRC immediately above, that would mean at least three complete replacements of the entire CISF, to stave off age-related degradation container failure, and failure of other CISF systems, structures, and components important to safety. Where would the funding come from to do so? Neither NRC nor DOE have answered that question. What would the consequences be if such replacements did not take place, such as due to lack of funding, or loss of institutional control? NRC Chairman Macfarlane warned, when NRC approved its Continued Storage of Spent Nuclear Fuel GEIS (formerly called Nuclear Waste Confidence Rule, but more truthfully dubbed a Nuke Waste Con Game), that institutional control will, by definition, someday be lost. Once that happens, what will be the consequences at CISFs? It is entirely possible that institutional control will be lost at CISFs during Holtec's relatively short 300 years, let alone EPA's million-year hazardous persistence acknowledgement.

These questions and concerns, and many others regarding the high risks of CISFs, must be communicated clearly to potential "host" communities, so they know what they are getting into. If this does not happen, fully-informed consent would be violated.

6. What organizations or communities should the Department consider partnering with to develop a consent-based approach to siting?

As provided for in the Nuclear Waste Policy Act of 1982, as Amended, regarding permanent repositories, the DOE should also provide funding to states, Native American tribal governments, and Affected Units of Local Government, being targeted for federal CISFs. Such funding is essential for attaining fully-informed consent, including for the hiring of independent experts, and the performance of independent technical, sociological, and other vital research.

In addition, such funding support from DOE should be extended to Non-Governmental Organizations (NGOs), which are almost always expected to take part in U.S. federal licensing and/or public comment proceedings, such as this one, with no federal funding support whatsoever. This practice is itself a violation of environmental justice and social equity, as environmental and environmental justice organizations, which often operate on very low budgets, or with no funding at all, have been expected to self-fund, or else simply volunteer with no funding support, throughout highly complex and very lengthy federal proceedings. Such past abuse cannot be repeated in the present or future, not without violating fully-informed and free consent-based siting principles.

Other countries, such as Canada and Sweden, do provide national government funding to NGO watchdogs, to take part in national highly radioactive waste dump licensing proceedings. The

U.S. should also do so, but never has. This U.S. government neglect is itself an EJ violation, when EJ NGOs are thus neglected.

7. What other issues, including those raised in the Draft Consent-Based Siting Process (www.energy.gov/ sites/ prod/ files/ 2017/ 01/ f34/ Draft Consent-Based Siting Process and Siting Considerations.pdf) *[sic, please note that this is a broken link, despite its inclusion in the Federal Register Notice]* should the Department consider in implementing a consent-based siting process?

Opponents to federal and/or private CISFs have likely submitted more than 100,000 public comments opposed to CISFs over past years and decades. This has included public comments submitted to: NRC in the Private Fuel Storage, LLC (targeted at the Skull Valley Goshutes Indian Reservation in Utah < see: http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm >) CISF environmental review public comment proceedings, in the late 1990s/early 2000s; the DOE Office of Nuclear Energy's own Blue Ribbon Commission on America's Nuclear Future (2010-2012); the U.S. Senate Energy and Natural Resources Committee chairman Ron Wyden (Democrat-Oregon) a decade ago, when the ENR Committee requested public comment during the development of legislation to implement the BRC's recommendations; DOE's own previous "Consent-Based Siting" public comment proceeding (2015-2017); and the current round of CISF targeting (Interim Storage Partners in Texas, Holtec in New Mexico) NRC environmental review public comment proceedings (2017-2021); and other related public comment proceedings. DOE should compile, publish, review, consider, and respond in writing, to all these previous 100,000+ public comments, opposed to CISFs, whether privately owned, or federally implemented.

As those 100,000+ comments have made clear not for years, but for decades, large numbers of Americans rightfully regard CISFs as a very dangerous, non-sensical non-starter. Highly radioactive wastes and irradiated nuclear fuel should only be shipped once, from the nuclear power plant sites and DOE facilities where they are currently stored, to a technically suitable, socially acceptable permanent geologic repository. (See Beyond Nuclear's "Stringent Criteria for a Highly Radioactive Waste Geologic Repository." < http://archive.beyondnuclear.org/repositories/2020/5/26/stringent-criteria-for-a-highly-radioactive-waste-geologic-r.html >)

CISFs, by definition, guarantee that serious transport risks will be multiplied, for no good reason whatsoever, as irradiated nuclear fuel and highly radioactive waste crosses the country from reactor sites and DOE facilities, to CISFs, only to have to be shipped again someday (or some decade, or some century) to a permanent repository. The permanent repository could be located right back in the same direction from which the irradiated nuclear fuel came in the first place, further revealing the absolute folly of CISFs.

If CISFs are merely intended to expedite the transfer of title and liability for commercial irradiated nuclear fuel, from industry onto DOE (that is, federal taxpayers), this is entirely unacceptable. As federal policy, law, and regulation have long established, and as courts have ruled, interim storage is the private owners' responsibility, while permanent disposal is the federal government's (that is, DOE's or its replacement entity, per the BRC recommendation —

that is, ultimately, federal taxpayers') responsibility. (The nuclear ratepayer funded Nuclear Waste Fund does currently contain some $40 billion, for use on permanent geologic disposal. But repositories will cost far more than this. Federal taxpayers will be looked to to make up the difference.) This latter policy, of the federal government bearing responsibility for permanent disposal, already represents an unprecedented, unique in all of industry, very large-scale subsidy to a private industry. The nuclear power industry should not be allowed to foist interim storage costs, risks, and liability onto DOE (that is, taxpayers) as well. This would be a radical departure from past federal policy, law, regulation, and court ruling precedent.

Besides, DOE, as well as NRC, the nuclear power industry, and its proponents, stubbornly refuse to acknowledge much or any risk associated with on-site storage of irradiated nuclear fuel and highly radioactive waste, whether stored in wet indoor pools, or outdoor dry cask storage, whether at operating nuclear power plants, permanently closed atomic reactors, DOE complex sites, or elsewhere. If such on-site storage is so safe and secure, as DOE, NRC, and the nuclear power industry assert, then why ship the wastes to CISFs? Why take the unnecessary transport risks? Why expose away-from-reactor "green field" sites to the very high risks of CISFs, if current on-site storage is so safe and secure? DOE, NRC, and the nuclear power industry are speaking out both sides of their mouth, in their advocacy for unneeded, unhelpful CISFs. CISFs actually multiply the risks, unnecessarily, unhelpfully, and should be rejected.

By the way, on-site storage is not safe and secure. Far from it. This is why more than 200 groups, representing all 50 states, have called for hardened on-site storage, for the past two decades. See more about HOSS, elsewhere in our comments.

Area 2: Removing Barriers to Meaningful Participation

1. What barriers might prevent meaningful participation in a consent-based siting process and how could those barriers be mitigated or removed?

As mentioned above, BIPOC and/or low-income communities, as well as those already disproportionately polluted, should not even be targeted for CISFs in the first place. It would be an environmental justice violation, on its face. But DOE could and should support BIPOC and/or low-income communities, especially those already shouldering disproportionately high hazardous industry burdens, in consent-based siting of safe, clean, renewable energy and energy efficiency economic development. This would comport with the Biden administration's stated EJ principles. So too would DOE prioritizing long overdue radiological clean up and remediation, in places contaminated with hazardous ionizing radioactive pollution, as due to nuclear power and nuclear weapons industry abuses of the past, including those perpetrated by DOE (and its predecessor, the U.S. Atomic Energy Commission, AEC) itself.

Another barrier is language. Importantly, Latinx communities often have a large percentage of residents for whom Spanish is their primary or only language. Such is the case in the region surrounding the privately owned CISFs currently targeting the Permian Basin in New Mexico

and Texas. Along one stretch of railway (El Paso to Monahans in West Texas) that would carry high-level radioactive wastes to one or both of these CISFs if they are constructed and operated, the Latinx population represents 92% of the overall population, and 49% of the population does not speak English well. (For more detailed information, see: < http://static1.1.sqspcdn.com/static/f/356082/28466350/1631389405890/CISF+Dangers+and+Holtec+and+ISP+sites-3.pdf?token=TdODAT3hqzGDDH887ttAaoVjjJQ%3D >)

Thus, for DOE to meaningfully communicate with such populations, all written and verbal communications must not only appear in English, but also Spanish.

Similarly, numerous Indigenous Nations have been and still are targeted for CISFs, whether privately-owned or federal. Again, all communications must be translated into all local Indigenous languages. This is especially important given the leadership role of elders in traditional Indigenous Nations; many elders speak their Native language, with English (and/or Spanish) a distant second, if at all.

Along similar lines, DOE must always be conscious of digital divides. Given the disproportionately high poverty rates, rural locales, and other socio-economic challenges faced by many BIPOC and low-income communities, including those already beset by disproportionate hazardous pollution burdens, many citizens and residents that would be most impacted by CISFs, do not have ready internet, nor cell phone, access. Despite this, especially in this era of pandemic, most to all federal government proceedings (including this one, DOE's RFI re: CIS "Consent-Based Siting") is mostly to entirely internet-based and/or telephone-based.

New Mexico — currently targeted by a private CISF (Holtec), with very likely major DOE involvement (albeit illegal), and previously targeted by DOE for a federal CISF (at the Mescalero Apache Reservation, which was then later targeted by a private CISF, Private Fuel Storage, LLC) — is a case in point. The majority minority (Latinx, Indigenous) State of New Mexico faces many socio-economic challenges, in addition to its disproportionate nuclear, fossil fuel, and other hazardous industry pollution burdens. Among these is the current lack of access, by many New Mexicans, to the internet, and reliable telephonic connections. Thus, if DOE proposes to undertake consent-based siting interactions in such places, the agency must be prepared to rectify such digital divides. If not, any claim of "consent-based siting" rings hollow and empty, a merely meaningless check-the-box PR exercise.

Last but not least, the hearing and visually impaired, or persons with other physical challenges, must have full access to all communications, just like everyone else in society. Not only does the Americans with Disabilities Act require this by law of federal agencies like DOE, but it is the right thing to do. For example, numerous persons with hearing impairments spoke out at an NRC DEIS public comment meeting re: CISF applications in the recent past, objecting to the illegal, just plain wrong high hurdles they faced in simply taking part in the proceeding.

2. What resources might be needed to ensure potentially interested communities have adequate opportunities for information sharing, expert assistance, and meaningful participation in the consent-based siting process?

In addition to our answer to the question immediately above, as we also mentioned further above, DOE must provide adequate funding for community involvement, especially in BIPOC and/or low-income communities, particularly those already heavily burdened by hazardous industry and pollution. Such funding is needed for these communities to educate themselves, as well as to hire experts, communicate with their neighbors, and otherwise meaningfully take part in a very high stakes (life and death stakes, forevermore) proceeding initiated by a federal executive agency with a budget in the tens of billions of dollars per year (provided by taxpaying Americans, by the way, including hardworking ones in these very same targeted low-income communities), initiated — truth be told — on behalf of the nuclear power industry, itself a trillion-dollar, extraordinarily heavily publicly subsidized special interest in this country.

Such funding support should be extended by DOE to NGOs, including environmental and environmental justice, social equity, and public interest NGOs, to enable them to also meaningfully participate in the proceedings. After all, DOE's counterpart agencies, as in Canada and Scandinavia, do this. But in the U.S., low income, to no budget, grassroots environmental, EJ, social justice, and public interest organizations are expected to pay all the freight for their own involvement in such proceedings, or to simply take part in an entirely unfunded, completely volunteer way. This is not right nor just, and certainly violates any fair concept of "consent-based siting," at least in regards to the "host" community's civic sector/civil society, a vital element of the American experience, from the very beginning of our great experiment with democracy.

For Indigenous Nations and communities to be treated this way is just the latest chapter in a physical and cultural genocide that began in 1492, when Columbus invaded the Americas, but the latest Atomic Age addendum to earlier "Bury My Heart at Wounded Knee" and "Century of Dishonor" chronicles.

3. How could the Department maximize opportunities for mutual learning and collaboration with potentially interested communities?

Renewable energy and energy efficiency are the future, if we are to have a future, in our climate-constrained world. Nuclear power is way too slow, and way too expensive, to help address the climate crisis in any meaningful way. In fact, money wasted on glacially slow and astronomically expensive nuclear power, is an opportunity cost, robbing resources from the real solutions, including renewables and energy efficiency.

So, to maximize opportunities for mutual learning, and to collaborate with communities interested in economic development, job creation, infrastructure improvement, and potential funding from DOE, renewables and efficiency should be the focus, not nuclear power, including its hideous "back end," radioactive waste storage and "disposal" (a misnomer on a small, living

planet — how can we "dispose" of this forever hazard, that can all too easily escape into the biosphere over time, as its containment fails?).

That said, even though nuclear power cannot help solve the climate crisis, it does have "insurmountable risks" all its own, as conveyed by the title and content of the groundbreaking 2006 book by Dr. Brice Smith of the Institute for Energy and Environmental Research, Insurmountable Risks: The Dangers of Using Nuclear Power to Combat Global Climate Change (< see: https://ieer.org/resource/books/insurmountable-risks-dangers-nuclear/ >). One of these is the dilemma of highly radioactive waste management. Of course we should stop making it. But for what already exists, environmental justice principles preclude the targeting of BIPOC and/or low-income communities for CISFs, especially those already disproportionately burdened by hazardous pollution. Yet this is precisely what DOE is attempting to do, while calling it "consent-based siting" as well as an "environmental justice" initiative. Orwell is rolling so fast in his grave, he could be connected to a turbo-generator and connected to the electric grid!

Another lesson DOE could learn from Indigenous wisdom was shared above. Winona LaDuke of Honor the Earth has pointed out that the first rule in kindergarten is, you have to clean up your last mess, before you get to make another one. She also has said that the best minds in the nuclear industry have been hard at work for more than a half-century, trying to find a solution to the radioactive waste problem. And they've finally found one: haul it down a dirt road, and dump it on an Indian reservation.

DOE must stop targeting BIPOC and/or low income communities, already disproportionately impacted by pollution and hazardous industry, with CISFs for highly radioactive wastes. Instead, DOE should prioritize, along with all other relevant federal, state, and local government agencies, the clean up and remediation of radioactively contaminated sites, from past abuses, including those by DOE itself, and its predecessor agency, AEC.

4. How might the Department more effectively engage with local, State, and Tribal governments on consent-based siting of federal interim storage facilities?

As with the Nevada congressional delegation's Nuclear Waste Informed Consent Act bill, introduced into both houses at the beginning of each new session of congress, any state targeted for a permanent repository should of course have absolute and final veto rights against the scheme — that is, the power of binding non-consent.

No state should have highly radioactive waste shoved down its throat, against its will. That would require the change in a line of the Pledge of Allegiance: "I pledge allegiance, to the flag of the United States of America; and to the Republic for which it stands; one nation, under God, indivisible" — except when it comes to radioactive waste, then it's every state for itself!

As the DOE's own BRC itself pointed out, such attempts to "Screw Nevada" at Yucca Mountain, or to screw any other states in a similar way, will almost certainly end in failure, with no repository whatsoever at the end of the bitter fight.

But of course, state veto rights should also extend to CISFs. Such rights should also be extended to Native American tribal, and local, governments, targeted with highly hazardous facilities such as permanent repositories and/or CISFs.

So, to engage with state, local, and/or tribal governments, DOE should guarantee such governments the absolute and final right to veto, or to express their non-consent, against such facilities, from the start.

But as mentioned above, DOE should not be initiating such site searches, even if "consent-based." After all, the DOE Office of Nuclear Energy's very own Blue Ribbon Commission on America's Nuclear Future recommended, in its Final Report in Jan. 2012, that DOE be replaced in the realm of highly radioactive waste management. Reasons included a complete and irreparable breach of the public's trust by DOE, in terms of its incompetence and worse, vis-a-vis highly radioactive waste management, storage, and "disposal," over the course of many decades.

5. What information do communities, governments, or other stakeholders need to engage with the Department on consent-based siting of federal interim storage facilities?

DOE should disclose to communities, governments, and/or other stakeholders the truth about the potentially catastrophic consequences of "hosting" forever hazardous high-level radioactive wastes and irradiated nuclear fuel, even for so-called "interim storage." DOE should make clear that "interim" storage would very likely become de facto permanent surface disposal, if a CISF is opened in the absence of a licensed, constructed, and operating permanent geologic repository, which is the exact situation in which we find ourselves.

DOE should disclose the truth about the hazards to human health of exposure to even short-term low doses of ionizing radioactivity, let alone long-term low doses of ionizing radioactivity, even under "routine" or "incident-free" operations of a CISF.

But of course, large-scale exposure to high doses of ionizing radioactivity — as due to accidents, attacks, natural or climate chaos caused, extreme weather disasters, and/or simply age-related degradation and failure of containment at CISFs over long enough periods of time — would be even more catastrophic.

DOE should disclose the high risks of reprocessing, since CISFs and reprocessing facilities are often joined at the hip, revolving door style. The private CISF targeted at southeastern New Mexico by Holtec actually grew out of a DOE scheme, the Global Nuclear Energy Partnership (GNEP), which spawned the Eddy-Lea [Counties] Energy Alliance, a pro-nuclear booster group,

itself closely affiliated with the Waste Isolation Pilot Plant (which itself experienced an "impossible" leak of plutonium and other transuranic radioactive isotopes into the environment on Valentine's Day 2014, exposing nearly two-dozen workers to ultra-hazardous alpha inhalation doses), itself also a DOE project. The Holtec CISF site is on top of the ELEA GNEP site — signage from GNEP still litters the landscape, fallen to the ground, riddled with bullet holes. And the Holtec CISF site is just 16 miles from WIPP.

Reprocessing's many risks include nuclear weapons proliferation, large-scale releases of hazardous ionizing radioactivity to air, soil, and surface water (and thus harm downwind, downstream, up the food chain, and down the generations), as well as astronomical expense, which the public will be forced to pay.

DOE should disclose the radioactive stigma impact on all other economic sectors, in communities and even states and even regions that become radioactive waste dumps. In the rural areas often targeted for CISFs, this would mean a radioactive stigma impact on nearby agricultural industries, for example. But it would also mean a radioactive stigma impact for urban areas along the transport route to the proposed CISF in the rural location.

DOE should disclose that most higher paying jobs associated with CISFs will go to specially trained individuals coming from afar, not locally, while most of the very small number of jobs that are created, and accessible by most local residents, will not be very high paying at all. DOE should also be honest that the larger number of jobs associated with constructing a CISF would quickly dwindle post-construction to a much smaller number of permanent jobs during operations.

Such negative impacts, and many others, associated with CISFs should be fully disclosed by DOE to potential "host" communities, affected units of local government, and states or Native American tribal governments, or else any notion of "consent-based siting" will be undermined, as the "consent" will not be fully informed.

And again, low-income and/or BIPOC communities should not be targeted, lest "consent" not be freely given, but rather an expression of economic desperation, or other form of exploitation by a powerful federal agency, namely DOE, and the nuclear power industry it serves.

Area 3: Interim Storage as Part of a Waste Management System

1. **How can the Department ensure considerations of social equity and environmental justice are addressed in developing the nation's waste management system?**

BIPOC and/or low-income communities should never again be targeted for CISFs. DOE's own environmental injustice in this regard in the past — targeting Native American reservations for CISFs, as well as targeting Western Shoshone land in Nevada for a permanent repository — is

infamous and shameful. It should not be repeated in the present nor future (see: http://archives.nirs.us/radwaste/scullvalley/historynativecommunitiesnuclearwaste06142005.pdf; also see, regarding a DOE CISF scheme that turned into a private CISF scheme, targeting the Skull Valley Goshutes Indian Reservation in Utah: http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm).

For Women's History Month in March, 2009, President Barack Obama honored Grace Thorpe (10 December 1921 – 1 April 2008), a Sauk and Fox and Pokagon Potawatomi Indian anti-nuclear activist, for her successful work to protect her own, and other, Native American reservations targeted for highly radioactive irradiated nuclear fuel de facto permanent surface storage parking lot dumps.

Obama's proclamation began:

"With passion and courage, women have taught us that when we band together to advocate for our highest ideals, we can advance our common well-being and strengthen the fabric of our Nation. Each year during Women's History Month, we remember and celebrate women from all walks of life who have shaped this great Nation. This year, in accordance with the theme "Women Taking the Lead to Save our Planet," we pay particular tribute to the efforts of women in preserving and protecting the environment for present and future generations…"

It continued:

"...Women have also taken the lead throughout our history in preserving our natural environment."

Re: Grace Thorpe, President Obama proclaimed:

"Grace Thorpe, another leading environmental advocate, also connected environmental protection with human well-being by emphasizing the vulnerability of certain populations to environmental hazards. In 1992, she launched a successful campaign to organize Native Americans to oppose the storage of nuclear waste on their reservations, which she said contradicted Native American principles of stewardship of the earth. She also proposed that America invest in alternative energy sources, such as hydroelectricity, solar power, and wind power."

[See the proclamation posted online here: < http://static1.1.sqspcdn.com/static/f/356082/27179664/1512629446250/Obama+proclamation+on+Grace+Thorpe.pdf?token=ipskIjCjj89OTT55s8pEAvZHNRM= >]

Thorpe served as a board of directors members of NIRS (Nuclear Information and Resource Service). Her primary organizational affiliation was NECONA (National Environmental Coalition of Native Americans).

She once told then-NIRS nuclear waste specialist, Kevin Kamps, in summer 2002, that her motivation to fight nuclear power and radioactive waste came from her experiences while deployed in Nagasaki, Japan in the immediate aftermath of the atomic bombing there. Thorpe won a Bronze Star for her service in the Women's Army Auxiliary Corps (WAACs, pronounced "wax") in World War II.

After President Obama's remarkable proclamation honoring Grace Thorpe's successful life's work fending off CISFs (previously called by other names in the past, such as Monitored Retrievable Storage (MRS) sites, Independent Spent Fuel Storage Installations (ISFSIs), Away-from-Reactor (AFR) sites, etc.) targeted at Native American reservations, how can the Biden administration DOE now be targeting Native American reservations, and other BIPOC, and/or low-income communities, especially those already suffering a disproportionate burden of pollution and hazard, with yet another round of proposed CISF schemes, albeit now under the ruse of "consent-based siting"? It is an EJ violation in and of itself.

Even if the CISFs never open. Just the targeting itself wounds these communities. Skull Valley Goshutes in Utah is a good example of this. Skull Valley was first targeted for a federal CISF by the DOE's own Nuclear Waste Negotiator, beginning in the late 1980s. When that failed, Private Fuel Storage, LLC — a consortium of a dozen or more nuclear power utilities — picked up the reins. The bitter struggle split the tribal down the middle. Resistance to the CISF by tribal members like Margene Bullcreek, Sammy Blackbear, and others, cost them dearly. They were required to make tremendous personal and family sacrifices, in their successful resistance to the CISF, an effort that dominated their time, energy, and lives over the course of many long years. The intra-tribal wounds, between pro-CISF and anti-CISF Skull Valley Goshutes tribal members, lasted long after NRC's approval of the CISF there in 2005-2006, even though no waste was ever shipped or stored there, due to ongoing, large-scale resistance, not only by intra-tribal resistance, but resistance across Utah, and around the country, including from Indigenous environmental leaders like Indigenous Environmental Network, Honor the Earth, and many others, as well as the national EJ movement itself. (See: < http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm >) The mere targeting of low-income and/or BIPOC communities for CISFs is itself an EJ violation.

Such repeated targeting of BIPOC and/or low-income communities, for ever more pollution and hazard, over and over again over decades, is terrorizing and wearying to the communities which must repeatedly muster the wherewithal to fend off such threats, while facing many other challenges, and while living their lives, caring for their families and communities, and striving to preserve their cultural life-ways. In this very real sense, DOE's current "consent-based siting" RFI promoting CISFs is a significant EJ violation, in and of itself.

2. What are possible benefits or drawbacks to co-locating multiple facilities within the waste management system or co-locating waste management facilities with manufacturing facilities, research and development infrastructure, or clean energy technologies?

As mentioned above, the private CISF scheme proposed by Holtec in southeastern New Mexico grew out of DOE's very own GNEP scheme, a pro-reprocessing and pro-"advanced" reactor RD&D (Research, Development, and Deployment) scheme, that thankfully died a sudden death with the end of the Bush/Cheney administration. But truth be told, Holtec would like to undertake reprocessing at its CISF someday, if it could get away with it — as leaders of ELEA have revealed, as in media interviews, over the years. Holtec might even float the trial balloon of deploying Small Modular Nuclear Reactors at the CISF site. After all, it has a SMNR design/fabrication/sales division. Holtec pulled the bait and switch of acquiring the permanently shutdown Oyster Creek nuclear power plant, supposedly for decommissioning and irradiated nuclear fuel management purposes. But after a short time, Holtec then proposed to build a SMNR at Oyster Creek. Holtec cannot be trusted not to do so at other supposed decommissioning sites (Indian Point, NY; Palisades/Big Rock Point, MI; Pilgrim, MA), as well as at its CISF in NM.

But truth be told, Interim Storage Partners in Andrews County, TX, just 0.37 miles upstream from the NM border, would also like to reprocess irradiated nuclear fuel at its CISF, someday, if it can get away with it. After all, Orano (formerly Areva, formerly Cogema), the French government owned nuclear giant, is a major "partner" in Interim Storage Partners. Orano/Areva/Cogema is also the lead reprocessing entity in the Western world, having contaminated the Atlantic Ocean all the way to the Canadian Arctic with radioactive wastewater pollution, as well as releasing large-scale hazardous radioactive gaseous pollution onto the winds blowing across Europe. Orano has long been lobbying NRC (as recently as March 2020) to revise its reprocessing regulations, to make reprocessing in the U.S. that much easier to undertake.

Although DOE is proposing a federal CISF in this RFP, the same dynamic still applies. DOE tends to try to congregate multiple nuclear facilities on the same "nuclear oasis" site, given the popular resistance to all things nuclear in most places nationwide. Wherever DOE can get an inch, it attempts to take a mile. WIPP in NM is another such example. WIPP was sold to the people of NM, against the will of many, with the false promise that if WIPP opened as a so-called "low" level radioactive waste dump (albeit for ultra-hazardous transuranic military wastes), then NM would never be asked to become the "host" for highly radioactive wastes.

In fact, WIPP's existence is what has led its own proponents and boosters to strive to add more and more nuclear industry in the immediate area, what rabidly pro-nuclear U.S. Senator Pete Domenici (Republican-NM) called his "nuclear corridor," even extending into west TX.

After WIPP, URENCO set up shop in Eunice, NM, with NRC's blessing, even though URENCO was blocked in Louisiana over EJ violations, and was run out of other states, like TN, where it attempted to set up shop. URENCO set up shop in southeastern NM despite widespread resistance in NM, and nationally, compliments of NRC's ready rubber-stamp for all things nuclear.

Then Waste Control Specialists, LLC opened a national "low" level radioactive waste dump, just several miles east of Eunice, NM, just across the NM/TX state line in Andrews County.

International Isotopes, a depleted uranium hexafluoride deconversion facility, has been proposed near Hobbs, NM.

All of this is in addition to past nuclear abuses in southeastern NM, such as the Gnome-Coach Experimental (Nuclear Explosive Device) Test Site. Not to mention the nuclear abuses across NM before (and after) WIPP came in, including at Los Alamos National Lab, the Trinity atomic bomb test site, Sandia National Lab and Kirtland Air Force Base, the uranium mining region of northwestern NM and the adjacent Four Corners area, in Pueblo and Navajo/Diné country, abuses at the White Mesa Uranium Mill in Ute Mountain Ute country in Colorado/Four Corners, etc. The radioactive racism perpetrated by the nuclear industry and DOE (and its predecessors, including not just AEC but even the Manhattan Project) against the people of NM is infamous and overwhelming, as well as still ongoing.

All this to say that adding environmental injustice upon environmental injustice does not make for environmental justice. That is why DOE's attempted assertion that the jobs, infrastructure development, and potential funding associated with "hosting" a CISF, would contribute to social equity and EJ, is Orwellian, and reprehensible.

Proposed legislation on Capitol Hill over the past several, such as the Nuclear Waste Administration Act and other bills, purportedly intended to enact into law recommendations made by the DOE's own BRC, has suggested that preference should be given to sites that could "host" a so-called pilot CISF, that could then "host" a full-scale CISF, that could then "host" a permanent repository. Of course, this means that any community that makes the mistake of agreeing to "host" a pilot CISF, will then be put under extreme pressure to also agree to "host" a full-scale CISF, and then will be put under even more pressure to agree to "host" a permanent repository. Whether or not such a site was even suitable or socially acceptable for a pilot CISF in the first place, let alone a full-scale CISF to follow, let alone a permanent geologic repository, seems to get lost quickly in the DOE and/or nuclear power industry lobbying campaign and snake oil salesmanship.

In a very real sense, this is an echo of NM's prior experience with Los Alamos, Trinity, WIPP, etc. over the course of eight decades, and counting.

And, as mentioned above, such pressure could extend beyond "hosting" radioactive waste dumps, to such other high hazard nuclear facilities as reprocessing centers, SMNRs, etc.

This amounts to Faustian fission. Once the nuclear beast (a phrase coined by the NM-based Nuclear Issues Study Group in 2017 for its conference at UNM, "Dismantling the Nuclear Beast") gets its claws into a "nuclear oasis," it will never let go. It will continue to press to add more and more hazardous nuclear industry facilities, into often times BIPOC and/or low-income "host" communities, which never consented to the initial foot-in-the-door/camel's nose under the tent nuclear "pilot" facilities in the first place.

3. To what extent should development of an interim storage facility relate to progress on establishing a permanent repository?

As mentioned immediately above, the nuclear beast, once its claws are in, will press for more and more. A federal CISF could well become a permanent geologic repository, whether or not the site is suitable, or socially acceptable, for either a CISF or a repository.

Alternatively, a federal CISF, just as with a private CISF, would likely become a de facto permanent surface storage site, or more accurately, a de facto permanent surface disposal site, a parking lot dump.

Another version of this involves the company Deep Isolation, Inc., pushing untested deep borehole disposal for irradiated nuclear fuel and highly radioactive wastes. DOE pushed deep borehole disposal. But its so-called test drills got nipped in the bud, run out of multiple states on a rail, before they could begin, including eastern NM. Deep Isolation, Inc. is staffed by many a former DOE official, yet another example of the revolving door between federal and private, between DOE and industry. Truth be told, like a radioactive snake oil salesman, Deep Isolation, Inc. would like to sell deep borehole disposal anywhere it can get away with it, be that at CISFs, at reactor sites, or elsewhere. So yet again, once a nuclear beast is let inside the house, it won't leave, till it wrecks the place.

Another important point here is the spirit, and in fact the letter, of the law embodied in the Nuclear Waste Policy Act of 1982, as Amended. States with relatively small populations, and thus relatively less political and economic power, made sure to include in the law a wise precaution, prohibiting DOE from taking title to commercial irradiated nuclear fuel, unless and until a permanent geologic repository was licensed, constructed, and operating.

Otherwise, the political will to ever go forward with a repository would be lost, and the CISF would become de facto permanent surface disposal, a parking lot dump.

Despite this clear prohibition in federal law, NRC has proceeded to process the Holtec and ISP private CISF license applications, which clearly indicate a major or even overriding role for DOE involvement, including paying most to all costs, including a hefty profit margin to the private company CISF owners — that is, effectively a title transfer for commercial irradiated nuclear fuel from private industry owners, to DOE (that is, taxpayers). These supposedly "private" CISF schemes, with their overriding dependence on DOE (taxpayers) to pay all the freight, significantly blurs the lines of distinction between "private" and "federal" CISFs, in violation of the Nuclear Waste Policy Act of 1982, as Amended. (See Beyond Nuclear's series of fact sheets for more information on this: http://archive.beyondnuclear.org/centralized-storage/2021/9/11/new-beyond-nuclear-fact-sheets-opposing-consolidated-interim.html)

A broad coalition of environmental groups, oil/natural gas/ranching/agricultural interests, and even the States of NM and TX themselves, have filed federal appeals against both CISFs, ISP (which NRC licensed in Sept. 2021), and Holtec (which NRC will likely license later this year). Bipartisan U.S. congressional delegations in the Permian Basin have also spoken out strongly

against the CISF schemes. A groundswell of resistance nationwide is to be expected, once countless communities in most states learn the frightening fact that transport routes for high-

level radioactive waste (by rail, road, and/or waterway) pass directly through or dangerously near them.

In addition, DOE's (using federal taxpayer money) paying most to all the freight for these supposedly "private" CISFs amounts to a radical departure from many decades of established U.S. law, regulation, and policy, as affirmed by federal court precedent — that storage of commercial irradiated nuclear fuel is the private industry's responsibility (and liability), while permanent disposal is the federal government's responsibility (and liability). In other words, title/ownership and liability cannot transfer, from private industry to DOE (American taxpayers) unless and until a permanent geologic repository has opened. CISFs, whether private or federal, or some combination of the two, proceeding in the absence of an operating repository, thus violates the spirit and letter of the Nuclear Waste Policy Act of 1982, as Amended, to the peril of CISF "host" communities, states, Native American reservations, etc.

4. What other issues should the Department consider in developing a waste management system?

As per above, didn't the BRC in Jan. 2012 recommend DOE be replaced as the agency in charge of irradiated nuclear fuel and highly radioactive waste management?! Therefore this entire proceeding is bogus and should be terminated! The Dec. 2015-Jan. 2017 DOE "consent-based siting" public comment proceeding further breached the public's trust. Large numbers of public comments, opposed to CISFs, were largely to entirely ignored by DOE in that proceeding. DOE even scrupulously avoided the very places in the U.S. targeted for "private" CISFs, albeit with deep DOE involvement, in TX and NM. Texans and New Mexicans opposed to the CISFs had to travel to AZ to take part in DOE's closest "consent-based siting" public comment meeting! DOE remaining the agency in charge is a blatant contradiction of its own BRC's recommendations!

ADDITIONAL COMMENTS — SOME FURTHER RESPONDING TO DOE'S EXPLICIT QUESTIONS POSED IN ITS FEDERAL REGISTER NOTICE, OTHERS ADDRESSING ISSUES DOE DID NOT EVEN ASK ABOUT

Ten Comments, in Concise Form:

(1.) The most serious and inevitable risk if the U.S. Department of Energy were to take ownership of commercial highly radioactive nuclear waste before a permanent geologic repository opens: federal Consolidated Interim Storage Facilities would likely become Consolidated Permanent Surface Storage, that is, de facto Above-Ground Permanent Disposal, or Parking Lot Dumps.

(2.) Indefinitely long, to permanent, surface storage at federal CISFs would require active features. Loss of institutional control anytime over the next million years would mean the potential for catastrophic releases of hazardous radioactivity into the environment, which would harm people and other living things downwind, downstream, up the food chain, and down the generations, potentially out to great distances, depending on wind- and water-driven flow over long periods of time.

(3.) Indefinitely long, to permanent, surface storage at federal CISFs would remain dangerously accessible, risking unintentional/accidental, but nonetheless catastrophic, releases of hazardous ionizing radioactivity, as due to container degradation/failure over time, extreme weather disasters due to climate chaos, etc. However, intentional releases, as due to an act of war, terrorist attack, or sabotage, are also possible. So too is theft/diversion of weapons-usable materials, risking proliferation of nuclear weaponry and/or radiological "dirty bombs."

(4.) Indefinitely long, to permanent, surface storage at federal CISFs would achieve only very short-term effectiveness, at best, compared to the extremely long hazardous persistence of irradiated nuclear fuel and highly radioactive waste.

(5.) Indefinitely long, to permanent, surface storage at federal CISFs, would result in intergenerational inequity, a form of environmental injustice.

(6.) Any legal authority for DOE to take title to and liability for commercial irradiated nuclear fuel at a federal CISF, in the absence of a permanent geologic repository, was very limited as to the quantity that could be stored there (just 1,900 metric tons), was for emergency purposes only, and expired more than three decades ago.

(7.) Federal CISFs would multiply the highly radioactive waste transportation risks, while accomplishing no increase whatsoever in the safety, security, health, or environmental protection associated with its storage.

(8). Nuclear power should be phased out and abolished, so that no more highly radioactive waste will be generated. We need to stop making it in the first place. However for highly radioactive irradiated nuclear fuel (INF) that already exists, hardened on-site storage (HOSS), or hardened near-site storage, is the best interim measure, not CISFs. HOSS, or hardened near-site storage, is the preferred interim alternative, not CISFs.

(9.) The continued targeting of CISFs at BIPOC (Black, Indigenous, People of Color) and/or low-income communities, already disproportionately burdened by pollution and hazardous

facilities, is a violation of environmental justice principles. DOE, which itself has an infamous history of targeting Native American reservations for CISFs (previously called by other names, such as Monitored Retrievable Storage (MRS) sites, Independent Spent Fuel Storage Installations (ISFSIs), Away From Reactor (AFR) sites, etc.), must cease and desist from such environmentally/radioactively racist practices.

(10.) Federal CISFs would be a dangerous dead-end detour on the road to a scientifically/technically, and socially acceptable, repository. Federal CISFs would also constitute a radical reversal of long established U.S. policy, law, regulation, and court precedent, which has held the private owners of commercial irradiated nuclear fuel responsible for its interim storage, while the federal government (that is DOE, using both nuclear ratepayer, and eventually federal taxpayer, funds) is responsible for permanent disposal.

The Same Ten Comments as Immediately Above, with Further Explication:

(1.) The most serious and inevitable risk if the U.S. Department of Energy were to take ownership of commercial highly radioactive nuclear waste before a permanent geologic repository opens: federal Consolidated Interim Storage Facilities would likely become Consolidated Permanent Surface Storage, that is, de facto Above-Ground Permanent Disposal, or Parking Lot Dumps

To ensure that highly radioactive commercial nuclear waste eventually gets to a suitable, socially acceptable, permanent deep geologic repository, the U.S. federal government must have a comprehensive strategy that keeps the U.S. on the road to a repository and precludes premature and false "quick-fixes." If the federal government undertakes consolidated irradiated nuclear fuel interim storage before it knows the location and characteristics of a proposed repository, it may not have the resources or political will for long-term logistical and financial planning and execution. Given the high costs of packaging and transportation necessary for consolidated interim storage, money may run out before the significant additional expense of permanent repository construction and operation is undertaken. In those circumstances, highly radioactive commercial and federal nuclear waste will become stranded at surface storage facilities.

(2.) Indefinitely long, to permanent, surface storage at federal CISFs would require active features. Loss of institutional control anytime over the next million years would mean the potential for catastrophic releases of hazardous radioactivity into the environment, which would harm people and other living things downwind, downstream, up the food chain, and

down the generations, potentially out to great distances, depending on wind- and water-driven flow over long periods of time.

Highly radioactive nuclear waste storage would be in casks placed at the Earth's surface or slightly below (i.e., within meters, or tens of meters). Storage systems would rely entirely on human-made engineered barriers that must be maintained and replaced at least every 100 years. This includes not only systems, structures, and components, including personnel, dedicated to safety, health, and environmental protection, but also to security. Therefore, surface storage requires investment and maintenance, governmental stability, and oversight for as long as the hazard persists (i.e., a million years).

By contrast, deep geologic disposal at a scientifically suitable and socially acceptable permanent repository, meeting all required stringent criteria, would rely on passive features: highly radioactive waste disposal casks would be placed in a mined repository 250-1,000 meters below the earth's surface. The disposal system would rely on a combination of human-made and natural geologic barriers designed to last a million years without need for human maintenance.

(3.) Indefinitely long, to permanent, surface storage at federal CISFs would remain dangerously accessible, risking unintentional/accidental, but nonetheless catastrophic, releases of hazardous ionizing radioactivity, as due to container degradation/failure over time, extreme weather disasters due to climate chaos, etc. However, intentional releases, as due to an act of war, terrorist attack, or sabotage, are also possible. So too is theft/diversion of weapons-usable materials, risking proliferation of nuclear weaponry or radiological "dirty bombs."

The location of CISFs at or near the Earth's surface would permit inadvertent or intentional intrusion into containers after emplacement. Surface or near-surface federal CISF location(s) would make nuclear waste more accessible and therefore more vulnerable to theft, re-use, or accidental exposure and release. This would include not only its vulnerability to container degradation and failure, but also to such unpredictable, but likely over long enough time periods, risks as extreme weather disasters due to climate chaos, terrorist attacks, acts of warfare, or other potentially catastrophic scenarios (such as inadvertent human intrusion) resulting in large-scale release of hazardous ionizing radioactivity.

By contrast, deep geologic disposal at a permanent repository that meets all stringent scientific/technical and social acceptance requirements (see, for example: < http://archive.beyondnuclear.org/repositories/2020/5/26/stringent-criteria-for-a-highly-radioactive-waste-geologic-r.html >) would make highly radioactive wastes inaccessible by design, getting the wastes away from the volatile, violent surface of the planet. The wastes' location in a deep mined geologic repository would make access to the hazardous materials extremely difficult. Therefore, this waste would have a low probability of theft, re-use, leakage, or accidental exposure and release.

(4.) Indefinitely long, to permanent, surface storage at federal CISFs would achieve only very short-term effectiveness, at best, compared to the hazardous persistence of irradiated nuclear fuel and highly radioactive waste.

NRC, for example, licenses storage casks for renewable 40-year terms and assumes that casks will be replaced "approximately once every 100 years." In fact, in its 2014 Continued Storage of Spent Nuclear Fuel GEIS and Rule, NRC assumes that the entirety of CISFs would have to be replaced at least once per century, including not only the containers, but all systems, structures, and components associated with the facilities.

By contrast, deep geologic disposal at a permanent repository that meets stringent criteria would achieve long-term isolation. Federal regulatory standards require a repository to provide effective isolation of highly radioactive nuclear waste out to a million years, without requiring any human intervention.

(5.) Indefinitely long, to permanent, surface storage at federal CISFs, would result in intergenerational inequity, a form of environmental injustice.

Burdens would fall on future generations with the responsibility, costs, liabilities, and risks of maintaining protective barriers against exposure to radioactive toxins, even though they never enjoyed one watt-hour of electricity generated by the irradiation of reactor fuel. The surface location would provide relatively ineffective long-term protection against theft or diversion of Plutonium-239, risking nuclear weapons proliferation. Similarly, highly radioactive and long-lasting hazardous wastes could be stolen or diverted for use in radiological "dirty bombs," even a

very small quantity of which could unleash catastrophic consequences if detonated with conventional explosives or otherwise dispersed into the environment, as in an urban population center, agricultural breadbasket, or into a major drinking water supply.

By contrast, deep geologic disposal at a permanent repository meeting stringent requirements would live up to intergenerational equity principles. The repository would be designed to protect future generations who did not benefit from the nuclear reactors that generated the nuclear waste. Ideally leakage would be prevented until the long-lasting waste decays significantly. Costs would be paid primarily, or at least initially, by nuclear reactor licensees (more precisely, through fees charged to their ratepayers) through the Nuclear Waste Fund, collected during years of reactor operation.

A court order ended DOE's collection of Nuclear Waste Fund fees in 2013. The Nuclear Waste Fund is currently at more than $40 billion. But a repository could cost $100 billion or more. More than one repository could well be needed, and in fact, per the Nuclear Waste Policy Act, is required, to maintain regional equity. That is, no one state would be forced to bear the entire high-level nuclear waste disposal burden for the entire country. The Nuclear Waste Fund fee collection will have to be reinstated. Otherwise, federal taxpayers will be looked to in the future to cover any shortfall in paying for the price tag for one or more repositories. Such a shortfall could be in the tens or even hundreds of billions of dollars, depending on the number of repositories required.

A scientifically suitable, socially acceptable deep geological repository could also provide maximum protection against theft or diversion of Plutonium-239 for production of nuclear weapons, and highly radioactive materials for use in radiological "dirty bombs."

Per the five points above, for more detailed information on the advantages of socially acceptable, environmentally just, and scientifically and technically suitable permanent geologic repository disposal, versus permanent surface storage at consolidated "interim" storage facilities, see the Beyond Nuclear fact sheet *Maximizing Health and Environmental Protection: Permanent Geologic Disposal versus Surface Storage of Nuclear Waste*. (posted online here: < http://static1.1.sqspcdn.com/static/f/356082/28466341/1631387150677/Disposal+v+Storage+Table+and+Serious+Risk-1.pdf?token=zXOmgSvOjG2CchLBCevUBq1s%2BWc%3D >)

See also Beyond Nuclear's "Stringent Criteria for Siting Permanent Geological Repository," for the technical/scientific, as well as social/environmental justice and consent-based siting requirements that should be strictly required. (posted online here: < http://archive.beyondnuclear.org/repositories/2020/5/26/stringent-criteria-for-a-highly-radioactive-waste-geologic-r.html >)

Note that we have been warning about the risks that CISFs would likely become de facto permanent surface storage/disposal, or parking lot dumps, for many years. See, for example, our comments to DOE in Jan. 2017. (posted online here: < http://archive.beyondnuclear.org/centralized-storage/2017/1/25/sample-public-comments-you-can-use-to-write-your-own-for-sub.html >)

(6.) Any legal authority for DOE to take title to and liability for commercial irradiated nuclear fuel at a federal CISF, in the absence of a permanent geologic repository, was very limited as to the quantity that could be stored there, was for emergency purposes only, and expired more than three decades ago.

The only provision in the Nuclear Waste Policy Act of 1982, as Amended, that allows transfer of title to irradiated nuclear fuel, from commercial licensees to DOE, prior to the opening of a permanent geologic disposal repository, is the emergency "Interim Storage Program" found in Subtitle B of the NWPA. But the Interim Storage Program expired in 1990. 42 U.S.C. (Part) 10156(a)(1). Thus the NWPA contains no current provision that would allow DOE to assume title and responsibility for commercial irradiated nuclear fuel to be stored at CISFs, whether federal or private. For more information, see the October 26, 2016 letter from an environmental coalition to the Commissioners of the U.S. Nuclear Regulatory Commission, re: SUBJECT: WCS License Application for Spent Fuel Storage Facility in Andrews County, TX, Docket No. 72-1050. (posted online here: < http://static1.1.sqspcdn.com/static/f/356082/27307046/1477549767997/2016-10-27+Curran+et+al+letter+to+McCree+re+WCS+application.pdf?token=GF/6LlGdJTfibGlcQXVHIkYFD3Y= >)

That is, DOE has no legal authority to proceed with the construction and operation of federal CISFs, unless and until a permanent geologic disposal repository is licensed, constructed, and operating.

Likewise, federal ownership of commercial highly radioactive nuclear waste at private consolidated 'interim' storage sites is illegal under the Nuclear Waste Policy Act of 1982, as Amended. Yet the private, commercial nuclear power industry is asking federal regulators to help them evade federal law by issuing private CISF construction and operating licenses that contemplate illegal federal ownership of the commercial irradiated nuclear fuel at two proposed private consolidated interim storage facilities, Interim Storage Partners, LLC's at Waste Control Specialists, LLC's national "low" level radioactive waste dump immediately upon the New Mexico border in Andrews County, Texas, and at Holtec International's at the Eddy-Lea [Counties] Energy Alliance's site in southeastern New Mexico, midway between Hobbs and Carlsbad, just 40-some miles from ISP.

These illicit and illegal licensing actions are now on appeal in federal court. [*Beyond Nuclear, et al. v. NRC* (U.S. Court of Appeals for the D.C. Circuit, Nos. 20-1187, 20-1225, 21-1104, 21-1147 (consolidated)) (proposed ISP facility in western Texas); *Don't Waste Michigan, et al. v. NRC* (U.S. Court of Appeals for the D.C. Circuit, Nos. 21-1048, 21-1055, 21-1056, 21-1179 (consolidated)) (proposed Holtec facility in southeastern New Mexico)]. Additional federal appeals have been filed by the States of Texas (in the 5th Circuit Court) and New Mexico (in federal district court there, as well as in the 10th Circuit Court). Fasken Land and Minerals, Inc. and the Permian Basin Land and Royalty Owners Association have joined the State of Texas in the 5th Circuit Court of Appeals.

(7.) Federal CISFs would multiply the highly radioactive waste transportation risks, while accomplishing no increase whatsoever in the safety, security, health, or environmental protection associated with its storage.

Since federal CISFs are supposedly "interim" (although they risk becoming de facto permanent), this means the highly radioactive wastes would have to shipped all over again, this time to a permanent repository. That repository could very well turn out to be right back in the same direction from which the wastes originated in the first place.

As one example, consider shipments from Maine Yankee to the private CISFs currently targeted at the already heavily polluted, Latinx-majority New Mexico/Texas borderlands. The distance from the Maine Yankee nuclear power plant site to Holtec's CISF in NM is around 2,500 miles, and to ISP's in TX just some tens of miles less. Maine has been targeted by DOE for a permanent geologic repository, under Sebago Lake, during the "Eastern Site Search" launched by the Nuclear Waste Policy Act of 1982, as Amended. It could be targeted again in the future, as documented in the DOE's 2008 "Report on the Need for a Second Repository."

If the Maine repository went ahead, the irradiated nuclear fuel shipped to the Permian Basin would then have to return, another 2,500 miles, right back to where it came from in the first place. That would be 60 containers of highly radioactive waste, traveling 5,000 miles round-trip, through a dozen or more states, for no good reason whatsoever.

Similar non-sensical, high risk round-trips could occur all across the country. CISFs, whether private or federal, make no sense and are not needed. Given the transportation risks of Mobile Chernobyls (by road and/or rail), Floating Fukushimas (by barge), Dirty Bombs on Wheels (any and all shipment modes), and Mobile X-ray Machines That Can't Be Turned Off (any and all modes, even during "routine" or "incident-free" shipments, although externally contaminated shipping containers would make gamma and neutron radiation doses to transport sector workers and innocent public passersby all the worse), there should only be one shipment, not multiple shipments. That is, containers of highly radioactive waste should travel from where they were generated, to a scientifically suitable, socially acceptable permanent geologic repository. That is, shipments should occur only once, to minimize transport risks. CISFs, whether federal or private, would unwisely multiply transport risks unnecessarily.

(8). Nuclear power should be phased out and abolished, so that no more highly radioactive waste will be generated. We need to stop making it in the first place. However for highly radioactive irradiated nuclear fuel (INF) that already exists, hardened on-site storage (HOSS), or hardened near-site storage, is the best interim measure, not CISFs. HOSS, or hardened near-site storage, is the preferred interim alternative, not CISFs.

Irradiated nuclear fuel should be transferred out of wet indoor storage pools in an expedited fashion, into hardened on-site dry cask storage, in order to address the catastrophic risks of potential pool fires. After the interim period of HOSS, only then should a single away-from-reactor transport shipment take place, to a socially acceptable, environmentally just, free and fully informed consent-based siting permanent geologic repository, to minimize the inevitable, high transport risks.

For more information, see:

Principles for Safeguarding High-Level Radioactive Waste at Reactors (Hardened On-Site Storage, HOSS), endorsed by more than 200 organizations, representing all 50 states (posted online here: < http://archive.beyondnuclear.org/on-site-storage/2020/8/19/principles-for-safeguarding-nuclear-waste-at-reactors-harden.html >);

Executive Summary, and Full report of "Robust Storage of Spent Nuclear Fuel: A Neglected Issue of Homeland Security", by Dr. Gordon Thompson of Institute for Resource and Security Studies (January 2003), focusing on the vulnerability of irradiated nuclear fuel stored at the nation's nuclear power stations to terrorism and other risks, and what can be done about it (posted online, here < http://archives.nirs.us/reactorwatch/security/sechosses012003.pdf >, and here < http://archives.nirs.us/reactorwatch/security/sechossrpt012003.pdf >, respectively);

Beyond Nuclear Letter to the Editor of the Los Angeles Times, re: hardened near-site storage at San Onofre nuclear power plant (posted online here: < http://archive.beyondnuclear.org/home/2017/9/14/beyond-nuclear-letter-to-the-editor-in-the-la-times.html >);

Beyond Nuclear's *Stringent Criteria for a Highly Radioactive Waste Geologic Repository* (posted online here: < archive.beyondnuclear.org/repositories/2020/5/26/stringent-criteria-for-a-highly-radioactive-waste-geologic-r.html >);

Beyond Nuclear's *Licensing Now Underway for Two Unlawful Consolidated 'Interim' Storage Nuclear Waste Facilities: New Mexico and Texas/What Measures Are Needed for Reasonably Safe Interim Storage at Reactor Sites Pending Repository Siting and Licensing?* (posted online here: < http://static1.1.sqspcdn.com/static/f/356082/28466342/1631387409593/ISP+and+Holtec+Unlawful+Applications+and+HOSS.pdf?token=tW%2BNcnrlyTffB0mvDl38vpHZpOA%3D >).

(9.) The continued targeting of CISFs at BIPOC (Black, Indigenous, People of Color) and/or low-income communities, already disproportionately burdened by pollution and hazardous facilities, is a violation of environmental justice principles. DOE, which itself has an infamous history of targeting Native American reservations for CISFs **(previously called by other names, such as Monitored Retrievable Storage (MRS) sites, Independent Spent Fuel Storage Installations (ISFSIs), Away From Reactor (AFR) sites, etc.), must cease and desist from such environmentally/radioactively racist practices**. (See: < http://archives.nirs.us/radwaste/scullvalley/historynativecommunitiesnuclearwaste06142005.pdf >)

This is especially true, in light of President Obama's proclamation, in March 2009, honoring Sauk and Fox/Pokagon Potawatomi environmental justice and anti-nuclear activist Grace Thorpe for her work against CISFs targeting Native American reservations, including her own in Oklahoma. (see: < http://archive.beyondnuclear.org/radioactive-waste-whatsnew/2018/2/14/president-obama-honored-grace-thorpe-re-her-resistance-to-nu.html >)

This includes the dynamic that has occurred more than once in the past, in which federal CISF schemes have transformed into private CISF schemes. Both the DOE Nuclear Waste Negotiator initiated CISF schemes at the Mescalero Apache Reservation in southern New Mexico, as well as at the Skull Valley Goshutes Reservation in western Utah, were eventually turned into private CISF schemes by Private Fuel Storage, LLC, a consortium of nuclear utilities, with Holtec International as the container supplier. In fact, the PFS CISF at Skull Valley Goshutes was, and still is, licensed by NRC. However, it has never been constructed nor operated. (See: < http://archives.nirs.us/radwaste/scullvalley/skullvalley.htm >)

(10.) Federal CISFs would be a dangerous dead-end detour on the road to a scientifically and technically suitable, as well as socially acceptable, repository. Federal CISFs would also constitute a radical reversal of long established U.S. policy, law, regulation, and court precedent, which has held that the private owners of commercial irradiated nuclear fuel are responsible for its interim storage, while the federal government (that is DOE, using both nuclear ratepayer, and eventually federal taxpayer, funds) is responsible for permanent disposal.

As the U.S. Nuclear Regulatory Commission has recognized, by providing, in the Nuclear Waste Policy Act of 1982, as Amended, Interim Storage Program, a narrow time period (the years 1982 to 1990) when DOE could take title to commercial irradiated nuclear fuel prior to the opening of a repository, "Congress intended to force the utilities to solve their own interim storage solutions after the federal program had 'bought them time' to do so." Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), CLI-02-29, 56 NRC 390, 405-06 (2002). This resolve to force licensees to solve their own problems was based on "Congress's belief that interim storage was the generators' responsibility." *Id*. at 404.

Congressional intent to place responsibility for interim commercial irradiated nuclear fuel storage squarely on licensees also is reflected in the other, extremely narrow, provisions of the Interim Storage Program. For instance, the Interim Storage Program limited the amount of commercial irradiated nuclear fuel that could be transferred to the DOE to only 1,900 metric tons. 42 U.S.C., Parts 10151(b)(2), 10155(a)(1). And before transferring that stopgap quantity of commercial irradiated nuclear fuel to the DOE, a reactor licensee was required to persuade the NRC that a lack of adequate irradiated nuclear fuel storage capacity at an operating nuclear reactor would jeopardize "the continued, orderly operation" of the reactor. 42 U.S.C., Part 10151(a)(3). These provisions show that Congress intended, prior to the opening of a repository,

to sharply restrict the time and circumstances under which the DOE could take title to commercial irradiated nuclear fuel. (Taken from October 26, 2016 environmental coalition letter to NRC, re: WCS License Application, page 3 of 5. Posted online here: < http://static1.1.sqspcdn.com/static/f/356082/27307046/1477549767997/2016-10-27+Curran+et+al+letter+to+McCree+re+WCS+application.pdf?token=GF/6LlGdJTfibGlcQXVHIkYFD3Y= >)

The federal government's liability for permanent disposal in a geologic repository is a unique and unprecedented subsidy in all of industry, easily surpassing $100 billion in value to the nuclear power industry, at the public's expense. Several years ago, DOE estimated that the price tag for the proposed repository at the scientifically unsuitable, illegal, and socially unacceptable Yucca Mountain, Nevada site, on Western Shoshone land, would be close to $100 billion, accounting for licensing, construction, and two centuries of operation. Simply adjusting for inflation alone would bring that grand total to over $100 billion in today's dollar figures.

Thus, repositories meeting stringent criteria — all of which Yucca Mountain violates — could easily cost $100 billion, or more, as well. DOE — or more appropriately, the replacement agency DOE's own Blue Ribbon Commission on America's Nuclear Future recommended take over highly radioactive waste management — would have access to more than $40 billion in the Nuclear Waste Fund, collected as a fee from nuclear electricity ratepayers from the 1980s to 2013. The shortfall, more than $60 billion, would come from federal taxpayers.

The shift of focus to the false quick-fix of federal CISFs would end momentum needed to locate a site meeting stringent criteria for a deep geologic repository for permanent disposal, and would waste critical time, money, and energy on the non-solution of CISFs. Given the cost and complexity of siting, licensing, constructing, and operating a permanent repository, such significant waste of resources on federal CISFs could well mean that money and momentum (societal and political will) would run out. This would result in the stranding of highly radioactive wastes at the CISFs, meaning they would become catastrophically risky *de facto* permanent surface storage, surface disposal, parking lot dumps (see point #1, above).

Federal CISFs would involve the expenditure of federal taxpayer money, for interim storage. U.S. policy, law, regulation, and court precedent has long held that interim storage costs are the responsibility of the private nuclear power industry title holders to the commercial irradiated nuclear fuel. Federal CISFs would shift such interim storage costs onto federal taxpayers.

This would be in addition to the $2.2 million per day ($800 million per year) federal taxpayers are already paying, in the form of damages, from the Judgment Fund at the U.S. Treasury, to commercial irradiated nuclear fuel title holders, due to DOE's partial breach of contract with them. DOE had contracted to begin permanent disposal at a repository beginning on January 31, 1998, but has missed that deadline by a quarter-century, and counting. DOE has also admitted a repository very likely will not open in this country until 2048 at the earliest, a full half-century after DOE's contractual commitment. This means another quarter-century to come of the U.S. Judgment Fund hemorrhaging taxpayer dollars — totaling tens of billions of dollars — to the nuclear power industry.

Thank you for considering our comments. If you have any questions, please contact Kevin Kamps, radioactive waste specialist at Beyond Nuclear, at: kevin@beyondnuclear.org, or (240) 462-3216.

These coalition comments are submitted by the following organizations:

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