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Sent: Tuesday, November 3, 2020 3:34 PM
To: WCS_CISFEIS Resource; Borges Roman, Jennifer; Park, James
Cc: Thomas Keegan
Subject: [External_Sender] Interim Storage Partners CISF, Docket ID NRC-2016-0231, DEIS (Public Comment Submission)
Attachments: Comment letter FINAL.pdf

Dear Ms. Borges and Mr. Park:

Attached are comments submitted for the docket in the captioned licensing proceeding on behalf of
Don't Waste Michigan, Citizens for Alternatives to Chemical Contamination, Public Citizen, Inc., San Luis Obispo Mothers for Peace, Nuclear Energy Information Service, Citizens' Environmental Coalition, Sustainable Energy and Economic Development Coalition and Leona Morgan.

Thank you.

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Federal Register Notice: 85FR27447
Comment Number: 10296

Mail Envelope Properties (205649403.1304437.1604435624364)

Subject: [External_Sender] Interim Storage Partners CISF, Docket ID NRC-2016-0231, DEIS (Public Comment Submission)
Sent Date: 11/3/2020 3:33:44 PM
Received Date: 11/3/2020 3:35:54 PM
From: Terry Lodge

Created By: tjlodge50@yahoo.com

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Post Office: mail.yahoo.com

Files	**Size**	**Date & Time**
MESSAGE	514	11/3/2020 3:35:54 PM
Comment letter FINAL.pdf	187346	

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Priority: Standard
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Sensitivity: Normal
Expiration Date:
Recipients Received:

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November 3, 2020

U.S. Nuclear Regulatory Commission
Commissioners and NRC Staff
c/o Regulations.gov @ Docket ID NRC-2016-0231
WCS_CISF_EIS@nrc.gov
Jennifer.Borges@nrc.gov
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RE: Interim Storage Partners CISF, Docket ID NRC-2016-0231, Draft Environmental Impact Statement (Public Comment Submission)

Dear NRC Commissioners and Staff:

Don't Waste Michigan, Citizens for Alternatives to Chemical Contamination, Public Citizen, Inc., San Luis Obispo Mothers for Peace, Nuclear Energy Information Service, Citizens' Environmental Coalition, Sustainable Energy and Economic Development Coalition and Leona Morgan[1] hereby submit their comments on the "Draft Environmental Impact Statement for the Interim Storage Partners LLC's Application for a Consolidated Interim Storage Facility for Spent Nuclear Fuel and High Level Waste (Draft Report for Comment)" (hereinafter "DEIS"), Docket ID NRC-2018-0052 (NUREG-2237) that has been compiled on Interim Storage Partners/Waste Control Specialists' ("ISP/WCS") application for a license to build and operate a Consolidated Interim Storage Facility ("CISF") for spent nuclear fuel ("SNF") and high-level radioactive waste in Andrews County, Texas.

On behalf of these organizations, I write to express their opposition to the ISP/WCS proposal, and we insist that the NRC terminate its licensing in order to protect public health and safety, the environment and our economy.

I. The Environmental Impact Statement Is Arbitrarily Limited To Analysis Of The CISF's First 40 Years Of Existence

The NRC's limitation on the scope of the DEIS to the initial license period of 40 years[2] is

[1]These organizations and Ms. Morgan sought to intervene and participate in the underlying licensing proceedings involving ISP/WCS's application for an NRC license to build and operate the CISF.

[2]See ISP/WCS Draft Environmental Impact Statement ("DEIS") at pp. 2-2.

unlawful and arbitrary. This is so because of ISP/WCS and NRC admissions of the likelihood that the facility will be operating beyond 40 years, and that considerable contemplated activity undertaken at the CISF within the 40-year licensing period will extend beyond the 40-year period, discussed below.

● "ISP anticipates continued storage for approximately 60 years or until a final geologic repository is licensed and operating in accordance with the Nuclear Waste Policy Act (NWPA) of 1982, as amended." ISP/WCS Environmental Report, Rev. 2, p. 1-2.

● "The range of alternatives considered was based on the constraints of technical design requirements, the presence/absence of public and governmental support for a CISF, and on meeting the need to provide a safe option for storing SNF for 60-100 years or until a permanent geologic repository is licensed, constructed, and operating pursuant to the requirements of the NWPA." ISP/WCS ER, Rev. 2, p. 2-1.

● The NRC Staff acknowledges in the DEIS the likelihood of a far longer storage period: "ISP stated that it may seek to renew the license and anticipates that the SNF would be stored at the CISF for 60 to 100 years (ISP, 2020)." ISP/WCS DEIS, p. 9-16.

● Expectation admitted by a competitor of ISP/WCS of a much longer operation life for CISFs. Joy Russell, Holtec Vice-President, has recommended to the U.S. Department of Energy ("DOE"), in her emailed "Response to RFI on Private Initiatives to Develop Consolidated SNF Storage Facilities,"[3] 1/27/2017, that "The CIS should have a minimum service life of 300 years."

● The NRC's 2014 "Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel"[4] ("Continued Storage GEIS"), which contemplates the potential that storage of spent nuclear fuel ("SNF") at a Consolidated Interim Storage Facility ("CISF") might continue "indefinitely." *Id.* at, *inter alia*, xxxii, l, liii, lvi, lxii, 2-35, 4-2, 4-28, 5-8, 5-10, 5-18.

● Testimony of then-Secretary of the DOE Rick Perry before a subcommittee of the U.S. House Appropriations Committee on March 26, 2019 that, as governor of Texas, he was "very supportive" of the notion that the ISP/WCS low-level radioactive waste dump site should become "a permanent site" for spent nuclear fuel.[5]

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[3]https://www.energy.gov/sites/prod/files/2017/02/f34/Jan%2027%2C%202017%20-%20Joy%20Russell%20-%20Response%20to%20the%20RFI%20on%20Private%20Initiatives.pdf

[4]https://www.nrc.gov/docs/ML1419/ML14196A105.pdf

[5]https://www.youtube.com/watch?v=CgtHCsQzffc&feature=youtu.be (at 27:50 - 28:55):
"Q (Congressman Simpson): Let me ask you a question, even the site in Texas, do you think that they would be willing to accept permanent storage?
A (DOE Secretary Rick Perry): You know, I'm gonna leave that up to the current governor to answer for you directly, but I can tell you what the previous governor said, and he was very supportive of

Considerable activity is planned to take place beyond the arbitrary 40-year term of the project. If the NRC has guessed wrong and there is no deep geological repository by the fortieth year, questions of continued institutional control will have to be resolved, which is a tacit admission that there will be relicensing. NEPA analysis thus cannot be curtailed at 40 years.

Without adequate institutional controls, failed spent nuclear fuel ("SNF") containers could release catastrophic amounts of hazardous radioactivity directly into the surface environment, to blow downwind, flow downstream, bioconcentrate up the food chain, and harm people for generations.

There will be an expensive and logistically complicated "repackaging" of SNF from the varied types of transport canisters in which it arrives at ISP/WCS, into DOE-ordered standardized transport, aging and disposal ("TAD") canisters in a geological repository. The NRC does not intend to require a Dry Transfer System (DTS) during the initial 40-year license. But a DTS may be needed within the first 40 years to safely remediate or repackage SNF from failing or failed containers in order to protect worker and public health and the environment. Moreover, a DTS capability is necessary for externally contaminated casks and canisters, damaged ones, and leaking ones. Emergent circumstances might pose a critical need for the capability during the initial operations period, and beyond, notwithstanding the NRC's position that there will be no need to require a DTS until the end of the first century of CISF operations.

ISP/WCS proposes to use a "Start Clean/Stay Clean" policy to avoid problematic containers. According to the DEIS:

> The proposed CISF would be designed and operated using a "start clean/stay clean" philosophy, meaning that it would be designed and operated as a radiological contamination-free facility (ISP, 2020). All components of the proposed CISF, including the transportation casks and storage canisters, are designed to minimize the potential for any contamination. Storage canisters are welded shut and sealed to prevent leaks and would not be opened during transportation to the proposed CISF or during storage. Transportation casks would be surveyed prior to shipment to the proposed CISF to ensure that all transportation standards are satisfied in accordance with NRC (10 CFR Part 71) and DOT (49 CFR Part 173) requirements. Transportation casks would not be shipped to the proposed CISF unless all appropriate NRC and DOT regulations are satisfied. Continual radiological monitoring of storage cask systems would be conducted throughout the license term of the facility to identify any potential contamination.

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it being a permanent site, worked that way, we had a low level nuclear commission that worked towards that while I was the governor. Again, I'm not gonna speak for the current governor or the current legislature but for 14 years prior to those individuals coming on the scene there was a clear effort to make – and the people of Andrews, the citizens of that county are very very supportive of that. My point is we've got to find a solution to this, 39 states as final repositories is not an appropriate solution to this."

DEIS at 2-11.

But there is no explanation of what provisions would be made for the SNF that is rejected by ISP/WCS and left behind at the reactor sites. There is also no discussion of what happens to arriving canisters or casks with external contamination. While the NRC Staff insists that "external contamination would have been limited by required surveys at the reactor site prior to shipment, and canister inspections would occur upon arrival at the proposed CISF project,"[6] there is no recognition that 100% perfection of containment is likely not attainable, and hence, no admission and discussion of decontamination measures for damaged, leaking or otherwise problematic arriving canisters or casks. The DEIS mentions, without any details, that there will be "plans to inspect casks upon arrival at the CISF and take corrective actions when canisters do not meet acceptance criteria, including unacceptable external contamination (ISP, 2018)."[7] Mention of unspecified "corrective actions" fails to discharge the NRC Staff's mandatory responsibility of public disclosures required by NEPA.

In fact, ISP/WCS's unspecified "corrective actions" reference contrasts with the slightly more candid approach taken in the Holtec DEIS. The complete lack of disclosure of ISP/WCS intentions about what will be done with contaminated canisters at the ISP/WCS site inspires more questions than it answers:

Holtec:

> Factors that contribute to the containment of SNF during normal operations include the use of sealed (welded closure) canisters that would remain closed for the duration of storage, the engineered features of the cask system, and *plans to reject and return canisters that have unacceptable external contamination* (Holtec, 2019b).

Holtec DEIS at 4-91 (Emphasis added).

Compare ISP/WCS:

Factors that contribute to the containment of SNF during normal operations include the use of sealed (welded closure) canisters that would remain closed for the duration of storage, the engineered features of the cask system, and *plans to inspect casks upon arrival at the CISF and take corrective actions when canisters do not meet acceptance criteria, including unacceptable external contamination* (ISP, 2018).

ISP/WCS DEIS at 4-85 (Emphasis added).

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[6]DEIS at 2-21.

[7]DEIS at 4-85.

ISP/WCS's mere "plan to inspect casks" is an evasive and unlawful plan to have a plan. ISP/WCS's implicit fantasy expectations of perfect management of spent nuclear fuel by having a philosophy of "start clean/stay clean" is an illogical dodge to avoid having a dry transfer system ("DTS") at the CISF, making it clear that there will be no genuine "corrective action" available for serious canister or cask failures.

During the 40-year licensing term, problems can, and likely will, develop with SNF containers. Even if they first arrive at the CISF in acceptable condition, age-related degradation over time is inevitable. If a DTS is never built at the ISP/WCS CISF, then catastrophic releases of hazardous radioactivity into the environment are increasingly likely, especially if operations continue beyond the first 40-year license term. Absent a DTS, which is a fundamental prerequisite for invocation of the NRC's Continued Storage Rule, loss of institutional control may come significantly sooner and more catastrophically than expected to ISP/WCS.

In addition, the NRC Staff makes only passing references to the decommissioning stage of the ISP/WCS CISF, and confines it to discussions of the local environmental effects that would follow from dismantling the facility[8] based on implicit magical thinking that there will be 100% containment of the radiation onsite. But decommissioning, whether at the end of 40, 80 or 120 years, will be an extremely complicated and involved project. Perhaps 40,000 MTU of SNF will have to be transported offsite to a permanent repository. The SNF will have to be repackaged in perhaps 32,000 or more uniform containers. Assuming for purposes of example that the waste will be reloaded into tens of thousands of containers and Yucca Mountain will be the destination repository, a transport campaign of up to 32,000 trips traveling the approximately 950 miles to Nevada equals more than 30,000,000 transport miles. This campaign will require many years, possibly decades. Unless it is to occur entirely within the initial 40-year licensing period, some portion of this massive transport effort will take place outside of it.

When it forces the most dramatic radioactive repackaging effort imaginable, decommissioning will generate thousands of tons of low-level radioactive waste ("LLRW") in the form of discarded canisters and even casks, a far greater volume of LLRW than is currently predicted in the DEIS. Repackaging will take years, with attendant risks of error, equipment failure, and material failure; nonetheless, mention of this enormous repackaging obligation is omitted from the DEIS.

II. The First 40 Years Of Operations Comprise An Irretrievable Commitment Of Resources, Which Compels The Scope Of The EIS To Encompass Relicensings And The Potential For De Facto Permanent SNF Disposition At ISP/WCS

Successful delivery of 3,400 SNF shipments projected by ISP/WCS will cause irreversible change with dramatic environmental effects in west Texas. The second-largest concentration of highly-irradiated nuclear waste on the planet will have been achieved (assuming

[8]See, for example, DEIS at xxi, xxv, xxvii, xxix, xxx, xxxi, xxxii, xxxiii, xxxv.

the Holtec LLC CISF in New Mexico goes into operation). There will have been created a supposedly temporary storage site for SNF, which is to serve as the originating site for 32,000 or more dispatches of SNF to a repository. And there will be entropy in the form of weathering, temperature spikes, corrosion, chemistry and constant irradiation within the storage casks, and deterioration will be under way. Many billions of dollars will have been expended by ratepayers and taxpayers to create SNF consolidation in one place. In other words, forty years from now, there will be an abundant, irretrievable commitment of resources in the construction and operation of ISP/WCS. That irretrievable commitment obligates the undertaking of a much more comprehensive NEPA investigation than is represented in the DEIS.

Section 102 of the National Environmental Policy Act ("NEPA") (42 U.S.C. § 4332) requires that all agencies of the Federal Government:

> (C) include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official on --
>
> (I-iv) . . . ;
>
> (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action should it be implemented.

. Likewise, Council of Environmental Quality regulation, 40 C.F.R. § 1502.16, requires intensive analysis in an EIS of irreversible or irretrievable resource commitments:

> This section [Environmental Consequences] forms the scientific and analytic basis for the comparisons [of alternatives]. . . . The discussion will include the environmental impacts of the alternatives including the proposed action, any adverse environmental effects which cannot be avoided should the proposal be implemented, the relationship between short-term uses of man's environment and the maintenance and enhancement of long-term productivity, and any *irreversible or irretrievable commitments of resources which would be involved in the proposal should it be implemented*. (Emphasis added).

See also 10 C.F.R. § 51.71(a) of the NRC's NEPA regulations, which requires that the EIS disclose any irreversible and irretrievable commitments of resources which would be involved in the proposed action.

"Once there has been 'an irretrievable commitment of resources' in the technology development stage, the balance of environmental costs and economic and other benefits shifts in favor of ultimate application of the technology." *Scientists' Institute for Public Information, Inc. v. Atomic Energy Commission*, 481 F.2d 1079, 1090 (D.C. Cir. 1973). That is, the overall impact from implementing a large-scale program is that *implementation controls or restricts options from the time of implementation forward.* The EIS "must therefore take a pragmatic and realistic view of the scope of the action being contemplated. The view must be one neither confined by the literal limits of the specific proposal nor one unbounded except by the limits of the designer's imagination." *Swain v. Brinegar,* 542 F.2d 364, 369 (7th Cir. 1976).

The arbitrary cutoff of NEPA analysis at 40 years, in light of irreversible or irretrievable commitments to remaining segments of the proposed action (such as preparing to convey the SNF to a repository or installing long-term institutional controls for the waste to remain in west Texas forever), is unacceptable. The agency must address the activities of that segment as a whole with the other segments. *United States Dep't of Energy et al.* (Clinch River Breeder Reactor Plant), CLI-82-23, 16 NRC 412, 424 (1982).

III. The EIS Must Encompass and Address Environmental Impacts Associated With Relicensing And Decommissioning, Because Relicensing And Decommissioning Are Reasonably Foreseeable

The evidence cited above from the DEIS and other sources shows that relicensing of operations at the end of 40 years is a reasonably foreseeable future action. Even if the facility is not relicensed, decommissioning in the form of transporting 20,000 canisters or more of SNF to a repository is beyond a reasonably foreseeable action, it is a certainty – and if it is not a certainty, the possibility of ISP/WCS becoming a "forever" SNF repository must be analyzed in the EIS. Site-specific activities that are foreseeable because they will be inevitable will take place outside the initial 40-year license period. Those activities must be encompassed within the EIS and not be presumed to be addressed by the Continued Storage GEIS.

An EIS is required for "major Federal actions," which are "'actions with effects that may be major and which are potentially subject to Federal control and responsibility.'" *Department of Transportation v. Public Citizen*, 541 U.S. 752, 763, 124 S.C. 2204, 159 L.Ed.2d 60 (2004) (quoting 40 C.F.R. § 1508.18). Consolidation of SNF at the ISP/WCS CISF, as well as managing it for 40 years and more is incontestably "major" and subject to Federal control and responsibility. "Effects," according to NEPA regulations, are (1) "direct," which are "caused by the action and occur at the same time and place," and (2) "indirect," "caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."

An EIS "must analyze not only the direct impacts of a proposed action, but also the indirect and cumulative impacts of 'past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions.'" *Colorado Envtl. Coalition v. Dombeck*, 185 F.3d 1162, 1176 (10th Cir.1999) (quoting 40 C.F.R. § 1508.7). Federal regulations "do not explicitly require an EIS to include a discussion of cumulative impacts," *Edwardsen v. United States Dep't of Interior*, 268 F.3d 781, 786 (9th Cir. 2001), but they do "direct[ ] agencies to consider cumulative impacts in determining the scope of an EIS." *Id.*, citing 40 C.F.R. § 1508.25(c)(3) ("scope" of an EIS includes consideration of "cumulative" impacts).

The types of impacts that must be considered include "ecological (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health [effects]." 40 C.F.R. § 1508.8. "Agencies . . . have a duty to discuss in the FEIS impacts that are reasonably foreseeable." *Utahns for Better Transp. v. U.S. Dept. of Transportation*, 305 F.3d 1152 (10th Cir. 2002) (citing *Sierra Club v.*

Marsh, 976 F.2d 763, 767 (1st Cir.1992)).

The scope of an agency's NEPA inquiry must include both "connected actions" and "similar actions." 40 C.F.R. § 1508.25(a)(1), (3). Actions are "connected" if they trigger other actions, cannot proceed without previous or simultaneous actions, or are "interdependent parts of a larger action and depend on the larger action for their justification." 40 C.F.R. § 1508.25(a)(1).

It is legally inappropriate to defer consideration of cumulative impacts to a future date, because "NEPA requires consideration of the potential impact of an action before the action takes place." *City of Tenakee Springs v. Clough*, 915 F.2d 1308, 1313 (9th Cir. 1990) (citing 42 U.S.C. § 4332(2))(C)(v) "irretrievable commitments"). "[C]umulative impact analysis must be timely. It is not appropriate to defer consideration of cumulative impacts to a future date when meaningful consideration can be given now." *Kern v. U.S. Bureau of Land Mgmt*., 284 F.3d 1062, 1075 (9th Cir. 2002).

The treatment of multiple relicensings of ISP/WCS operations across a possible 100-year span is unlawful piecemealing or segmentation. Such artificial partitioning of the overall project ignores the obvious interdependence of the license periods. Consolidation of SNF and the operation of the CISF will compel a massive transport campaign at the back end of CISF operations to move the SNF to a repository. "Decommissioning" encompasses more than remediation of the damage done by the project to the local environment in Texas; it implicates the notion of further disposition of the SNF stored at ISP/WCS. The "common timing" and "geography" of the two or more ISP/WCS CISF licenses are "similarities that provide a basis for evaluating their environmental consequences together. . . ." 40 C.F.R. § 1508.25(a)(3). Looming decisions over license extensions and after that, abandonment or decommissioning, are all causally connected to the huge project of SNF centralization at the CISF in the first place. Since transport, storage operations and decommissioning or abandonment all tie directly back to the original decision to license the CISF, each phase and possibility must be identified and analyzed now, within this 2020 EIS, not in a supplemental EIS with foregone license extension approval, decades from now.

IV. The Major And Forseeable Activity Of SNF Repackaging During ISP/WCS Operations Goes Wholly Unmentioned In The DEIS

The NRC Staff's utter failure to acknowledge and consider ISP/WCS's massive canister repackaging obligation within the DEIS is a fatal deficiency.

In the "Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, Vol. I (2008)" ("Yucca SEIS"), the DOE stated:

> In 2006, DOE proposed a modified approach to repository design, development, and operation. Central to this proposed approach is the use of a canister concept for commercial spent nuclear fuel that minimizes handling of individual spent fuel

> assemblies; limits the need for complex surface facilities; and simplifies repository design, licensing, construction, and operation. DOE would use a TAD canister to transport, age, and dispose of commercial spent nuclear fuel without ever reopening the canister, thereby simplifying and reducing the number of handling operations involved in the packaging of spent nuclear fuel for disposal. In addition, the canistered approach offers the advantage of the use of practices that are familiar to the nuclear industry and the NRC, which would make the repository easier to design, license, construct, and operate. Although DOE has a small amount of spent nuclear fuel of commercial origin that it could ship to the repository uncanistered in a cask, consistent with the analysis in the Yucca Mountain FEIS, this Repository SEIS assumes that it would transport and receive all DOE spent nuclear fuel and high-level radioactive waste in disposable canisters. On October 13, 2006, in the Notice of Intent to prepare "Supplement to the Final Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, NV" (71 FR 60490), DOE announced that it would prepare a supplement to the Yucca Mountain FEIS to evaluate potential environmental impacts of the modified repository design and operational plans. *In its Notice of Intent, DOE described the primarily canistered approach whereby most commercial sites would package their spent nuclear fuel in TAD canisters, and all DOE materials would be packaged in disposable canisters at DOE sites.*

Id. at p. 1-5 (Emphasis added).

As a result, the DOE's present approach involves:

> . . . a primarily canistered approach to operate the repository; under this approach, most commercial spent nuclear fuel would be packaged at the reactor sites in TAD canisters. DOE would repackage commercial spent nuclear fuel that arrived in packages other than TAD canisters into these canisters in newly designed surface facilities at the repository. The Department would package essentially all DOE material in disposable canisters at the DOE sites. Most spent nuclear fuel and high-level radioactive waste would arrive at the repository by rail. Some shipments would arrive by truck. At the repository, DOE would place the TAD and other disposable canisters in waste packages that were manufactured from corrosion resistant materials. DOE would array the waste packages in the subsurface facility in tunnels (emplacement drifts).

Id. at § 1.4.2, p. 1-14.

Robert Alvarez, a senior scholar at the Institute for Policy Studies who is a former senior policy adviser to the Secretary of Energy and deputy assistant secretary for national security and the environment from 1993 to 1999, provided expert testimony in support of the undersigned commenters during their pursuit of intervenor status in this licensing proceeding.

According to Alvarez, a 2012 Energy Department study concluded that "waste package

sizes for the geologic media under consideration … are significantly smaller than the canisters being used for on-site dry storage by the nuclear utilities."[9] And a nuclear industry study found in 2014 that "casks and canisters being used by the power utilities will be at least partially, and maybe largely, incompatible with future transport and repository requirements, meaning that some, if not all, of the [used nuclear fuel] that is moved to dry storage by the utilities will ultimately need to be repackaged."[10]

After analyzing the volume of SNF and the Holtec plan to store up to 173,600 tons, Mr. Alvarez determined that "Repackaging for disposal may require approximately 80,000 'small' canisters."[11] Since ISP/WCS intends to take on about 25% of that tonnage at 40,000 MTU, it is reasonable to assume that ISP/WCS will be responsible for putting at least 20,000 of the presently-contemplated uniform design canisters on the rails to a future repository. *Yet there is zero mention, not to mention analysis, of this looming obligation in the DEIS.* It has implications for site contamination, worker safety, public safety, potential damage to the environment, decommissioning, low-level radioactive waste volumes generated at the ISP/WCS site, and the need to have a Dry Transfer System (DTS) capability there commencing when the CISF begins to accept SNF.

This is an enormous omission from the DEIS. The DEIS must fulfill and satisfy to the fullest extent possible the requirements established for final environmental impact statements in section 102(2)(C) of NEPA. 40 C.F.R. § 1502.9(a). "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.* A revised DEIS coupled with additional public participation is required here.

Nowhere does the DEIS disclose any other details about this policy. "Only if the harm in question is so 'remote and speculative' as to reduce the effective probability of its occurrence to zero may the agency dispense with the consequences portion of the analysis." *State of New York v. Nuclear Regulatory Com'n*, 681 F.3d 471, 482 (D.C.Cir. 2012).

General statements about "possible" effects and "some risk" do not constitute NEPA's "hard look" absent a justification regarding why more definitive information could not be provided. *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1380

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[9]http://www.beyondnuclear.org/storage/kk-links/Alvarez%20SNF%20at%20close d%20reactors%20rev%202.pdf

[10]Chris Phillips, Ivan Thomas and Steven McNiven, "Nuclear Industry Study on the Feasibility of Standardized Transportation, Aging and Disposal Canisters for Used Nuclear Fuel," Energy Solutions Federal EPC. WM2014 Conference, March 2-6, 2014, Phoenix, Arizona, USA. http://www.wmsym.org/archives/2014/papers/14011.pdf

[11]http://www.beyondnuclear.org/storage/kk-links/Alvarez%20SNF%20at%20closed%20reactors %20rev%202.pdf

(9th Cir. 1998). "[S]ome quantified or detailed information is required. Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide." *Id.* at 1379. In order to rely on mitigation to obviate further analysis, the measure must be identified and its effectiveness analyzed. *Nat'l Parks & Conservation Ass'n v. Babbitt*, 241 F.3d 722, 733-736 (9th Cir. 2001) (holding EIS must be prepared where monitoring and mitigation measures were uncertain). The agency must provide analytic data on the efficacy of a proposed measure, and the court must decide whether it "will render such impacts so minor as to not warrant an EIS." *Id.* at 734.

There being no disclosure in the DEIS of details of this controversial planned policy, and no identification of its environmental dangers and human health implications, the DEIS is seriously flawed. It is axiomatic that the EIS "shall be supported by evidence that the agency has made the necessary environmental analyses." 40 C.F.R. § 1502.1. The DEIS must fulfill and satisfy to the fullest extent possible the requirements established for final environmental impact statements in section 102(2)© of NEPA. 40 C.F.R. § 1502.9(a). "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.*

A revised DEIS and subsequent public participation is required here.

V. The Omission Of Serious Transportation Analysis From The DEIS Comprises Segmentation And Fails To Fulfill NEPA Disclosure Obligations

The paucity of discussion of truck, barge and rail transport of SNF to the Texas CISF is especially egregious. According to the NRC Staff, ISP/WCS predicts the receipt of 3,400 shipments and up to 40,000 MTU of SNF, on the one hand, but cannot possibly have any idea whatsoever of the identities of the sources of the SNF. Put another way, ISP/WCS ambitiously expects to consolidate one-third or more of the predicted output of SNF in the United States commercial nuclear power industry inventory at its site, yet cannot imagine which utilities will be using their services and over what railroad corridors.

The NRC's low-key approach to disclosure of the likely rail and other mode transit routes does not convey the comparatively candid approach that ISP/WCS took in its Environmental Report. Figure 2.2-4 on p. 2-71 of the ISP Environmental Report is a national map of rail transportation routes that was reproduced in the ISP/WCS ER. Figure 2.2-4 at p. 2-71, ISP/WCS Environmental Report.

The NRC acknowledged that ISP/WCS "proposes using the national rail network for transportation of SNF from reactor sites to the proposed CISF and eventually from the CISF to a permanent geologic repository for disposal" bud did not reproduce the national rail route map that ISP/WCS had included in its ER. ISP/WCS DEIS pp. 2-19, 2-20 ("ISP anticipates that the national rail network would be used for transportation of SNF from reactor sites to the proposed CISF and eventually from the CISF to a permanent geologic repository for disposal."). However, to the NRC, the routes remain a "Great Unknown" the mystery of which defies investigation or

discussion under NEPA:

> Because no arrangements regarding which nuclear power plants would store SNF at the proposed CISF have been made yet, the exact locations of SNF shipment origins have not been determined; therefore, the details regarding the specific routes that would be used also are not known at this time. SNF may be shipped from the locations of currently decommissioned reactor sites that are identified on the map in Figure 2.2-4. The origin, destination, and distance of potential SNF rail shipments from these decommissioned reactor sites are provided in EIS Table 3.3-1. If the proposed CISF is approved for and loaded to full capacity (*i.e*., 40,000 MTU in Phases 1-8), then it is reasonable to assume that shipments of SNF would also come from many of the existing reactor sites nationwide. Additionally, the SNF stored at the proposed CISF project would eventually need to be transported to a permanent geologic repository, in accordance with the U.S. national policy for SNF management established in the Nuclear Waste Policy Act of 1982, as amended (NWPA). The NWPA requires that DOE submit an application for a repository at Yucca Mountain, Nevada.
>
> Unless and until Congress amends the statutory requirement, the NRC assumes that the transportation of SNF from the CISF to a permanent repository will be to a repository at Yucca Mountain, Nevada.

ISP/WCS DEIS at 3-8 to 3-9.

All the NRC can imagine appears to be the map appearing in the DEIS at 2-78, which depicts only four 4 reactors out of 131 in the country, Maine Yankee, and the three San Onofre units. Clearly, the NRC Staff does not wish for residents of major urbanized regions through which hundreds or thousands of SNF shipments will travel to have an unequivocal understanding that the shipments are coming through their cities and suburbs. The NRC is unlawfully attempting to predetermine the outcome of this national policy decision by keeping the public from obtaining an accurate, graphic understanding of the implications and transit corridors of millions of miles of mostly rail-delivered SNF. The NRC Staff in its authorship of the DEIS adopts by mention the probable rail and truck routes contained in maps published by the DOE in the "Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, Vol. I (2008)" ("Yucca SEIS")[12] but the NRC Staff has declined even to

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[12]The maps appear at Yucca SEIS pp. 2-46 and 2-47. But see maps Fred Dilger, Ph.D. generated from the 2008 FSEIS data for 45 states and 20 urban areas:

Nevada Agency for Nuclear Projects - Representative Transportation Routes to Yucca Mountain and Transportation Impacts (Cask Shipments by State), http://www.state.nv.us/nucwaste/news2017/ymroutes17.png

Nevada Agency for Nuclear Projects - Cities Potentially Affected by Shipments to Yucca Mountain (pdf-2.45M), http://www.state.nv.us/nucwaste/news2017/pdf/Cities_Affected.pdf

reproduce those maps within the DEIS itself:

> The exact routes for SNF transportation to and from the proposed CISF would be determined in the future prior to making the shipments. However, to evaluate the potential impacts of these shipments and to aid the evaluation of the ISP transportation analyses, the NRC staff considers that representative or bounding routes applicable to a national SNF shipping campaign such as those described and evaluated in Section 2.1.7.2 of DOE's Final Supplemental Environmental Impact Statement for a geologic repository at Yucca Mountain (DOE, 2008) and NRC's most recent SNF transportation risk assessment in NUREG–2125 (NRC, 2014), provide sufficient information about potential transportation routes to support the analysis of impacts in EIS Section 4.3. The NRC staff considers the routes evaluated in these prior transportation analyses to be representative or bounding for SNF shipments to and from the proposed CISF project because they were derived based on typical transportation industry route selection practices, they considered existing power plant locations, and can be applied to EIS analyses using conservative or bounding assumptions (e.g., as described further in Section 4.3 of this EIS, selecting a route that is longer than most of the routes that would actually be used).

ISP/WCS DEIS, p. 3-9.

Notably, when the NRC Staff borrowed selectively from the Yucca SEIS, it did not also adopt or require important collateral transportation policies to which DOE has committed for a geological repository. The ISP/WCS DEIS does not contemplate dedicated trains or the use of special DOE-prescribed transport canisters. The Yucca SEIS strongly assumes that uniform TAD canisters will be loaded at commercial reactor sites. Instead of the use of more expensive dedicated trains, the NRC Staff assumes that "While SNF shipments would be traveling at a slower speed than other trains, the NRC staff reasonably assumes that rail carriers would make adjustments to account for SNF shipments." DEIS at 5-18.

This unsupported and naive statement ignores the potential for, and thus does not assess the prospects that perishables, cattle and fossil fuel cargoes may be assigned more urgent delivery priority than SNF and that as a consequence, SNF may set for varying and unpredictable periods of time at rail sidings. The mechanistic assumptions are illustrated in the DEIS by the calculation that "the maximally exposed individual is located 30 m [98 ft] from the rail track and is exposed to the direct radiation emitted from all 3,400 passing rail shipments of SNF at full build-out (Phases 1-8) under normal operations. The resulting accumulated dose is 0.019 mSv [1.9 mrem].

Nevada Agency for Nuclear Projects - States Potentially Affected by Shipments to Yucca Mountain with Congressional Districts (pdf-7.05M),
http://www.state.nv.us/nucwaste/news2017/pdf/States_Affected.pdf

Nevada Agency for Nuclear Projects - Congressional Districts Potentially Affected by Shipments to Yucca Mountain - 115th Congress (pdf-882K),
http://www.state.nv.us/nucwaste/news2017/pdf/Congressional_Districts_Affected.pdf

For any individual phase (including the proposed action, Phase 1) assuming the number of shipments is 425, the maximally exposed individual dose result was 0.0024 mSv [0.24 mrem]." The assumptions are excessively optimistic. People can (and will) get closer than 100 feet away, and the dose increases exponentially, the closer one gets. Shipments could pause, like you've said, increasing exposure time, and thus dose delivered. Externally contaminated shipments could give off much more than the 10 mR/hr at 6.6 feet dose rate (in the 1990s, many hundreds of Orano/Areva's shipping containers bound for the La Hague reprocessing facility, hundreds of them, a full one-quarter to one-third of all cargoes, emitted an average of 500 times the permitted dose; in one case, it was 3,300 times permissible; it was due to external contamination – and this involved the very same company involved with the ISP/WCS CISF,

Moreover, as Dr. Marvin Resnikoff, Ph.D. pointed out in his comments in this proceeding:[13]

- The DEIS also assumes an unrealistic 10-hour exposure time for emergency workers, implying the cask can be moved in this time period. NRC staff need to more closely examine real train derailments, particularly accidents involving fires, and the time to restore service. NUREG-2125 examines fires that burn up to 3 hours, while some real fires have burned for 2 days.

- As the capacity of spent fuel casks has increased, the weight of the casks has increased as well. This additional weight will place a burden on the rail infrastructure. The HI-STAR cask, containing 37 PWR fuel assemblies, will require a 3-car, 12-axle carriage, which will cause a train to slow on curves.

- NUREG-2125 considers only mid burnup fuel, 45 GWd/MTU, cooled for 9 years, and not high burnup fuel, with burnup between 60 to 70 GWd/MTU. High burnup fuel contains more fission products, particularly the semi-volatile Cs-137, which would account for high gamma doses to EMT's and the general public. The fraction of volatile Cs-137 in the gap between the cladding and fuel should be based on more recent DOE reports; supporting NRC documents for this gap cesium are not referenced, but, in our experience, are based on outdated 1978 reports. High burnup fuel also has thinner and more brittle cladding that may shatter in high impact accidents.

More than 90% of the SNF will travel exclusively or predominantly by rail. In many instances, rail spur segments will have to be reconstructed from closed and cleared former nuclear plant sites to allow transport of the SNF stored there. While the DEIS acknowledges that there is likely to be need for serious and expensive reconstruction of infrastructure simply to move the waste from its current locations, the NRC Staff did not attempt to quantify the need or the expense, and repeated an identical paragraph from the Holtec DEIS which communicates the

[13]"Comments on ISP/WCS DEIS by Marvin Resnikoff, Ph.D.," Radioactive Waste Management, (October 2020).

Staff's balk in that proceeding:[14]

> Some reactor sites, in particular, those that have been shut down or decommissioned but continue to store SNF in dry storage casks, may require local transportation infrastructure upgrades to remove the SNF from the site (DOE, 2014). These upgrades, for example, could include installing or upgrading rail track, roads, or barge slips necessary to transfer SNF offsite. Because these infrastructure upgrades would be needed – regardless of whether the proposed CISF project is approved – to allow shipment of SNF from reactor sites to a repository in accordance with the Nuclear Waste Policy Act of 1982 (NWPA), these enhancements are beyond the scope of the proposed action and are therefore not evaluated further. Additionally, because these infrastructure improvements are expected to be small construction projects limited to preexisting, previously disturbed, and previously evaluated reactor sites that are dispersed throughout the U.S., the environmental impacts are expected to be minor and are not evaluated further for cumulative impacts in Chapter 5 of this EIS.

ISP/WCS DEIS p. 4-10. The Staff cited lame excuses for refusing to include the reactor site infrastructure rebuild need in the DEIS: "This cost was not quantified in this EIS, because it (i) would be difficult to establish, (ii) would vary based on the individual generation sites, and (iii) would be a common need for both the proposed CISF and the No-Action alternative." ISP/WCS DEIS p. 8-1. Thus the NRC Staff has concealed potentially needed major infrastructure replacement or improvement of offsite rail, highway and perhaps other physical resources as well as its economic cost, in order to justify the construction and operation of the ISP/WCS CISF.

In 2017, Fred Dilger, using the Yucca SEIS transportation data on behalf of the State of Nevada Agency for Nuclear Projects, published a set of route maps, showing road and rail routes admitted by DOE as the most likely to be used to haul highly radioactive wastes to Yucca Mountain, NV.[15] As might be expected, the further away from the American Southwest such shipments originate, the more similar or even identical the routes for hauling highly radioactive wastes become, whether bound for Nevada, New Mexico or Texas. DOE also published barge route maps in its February 2002 Final EIS on Yucca.[16]

Yucca SEIS maps, however, have their limitations. The ISP/WCS CISF, after all, is located about 1000 miles from Yucca Mountain, so at some point, the routes to Yucca and west

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[14]See the identical passage in the Holtec DEIS at 4-13.

[15]Dilger's route maps are posted online under the year 2017 at http://www.state.nv.us/nucwaste/trans.htmt

[16]http://www.beyondnuclear.org/waste-transportation/2017/6/29/potential-barge-routes-on-us-surface-waters-to-ship-high-lev.html

Texas diverge significantly. But using the Yucca SEIS maps as a starting point to understand the range of the SNF transportation campaign from reactor sites to west Texas, clearly thousands of miles of rail, highway and waterway routes to ISP/WCS – information that is available but disregarded by the NRC Staff -- are completely undisclosed within the DEIS.

There are additional omissions of considerable technical and practical importance as they relate to transporting SNF, questions concerning the unique thermal traits of the waste to be shipped, the stability of fuel cladding, differential energy levels between generations of nuclear fuel, and more. To that end, the undersigned commenters adopt and incorporate by reference as though fully stated herein as their comments, pp.11-15 of the comments made by the Sierra Club and filed in this DEIS proceeding on or about November 2, 2020.

Transportation of SNF to ISP/WCS (and ultimately away from ISP/WCS) is the *sine qua non* of the project. But apart from the sparse explanation in the DEIS, multiple transportation issues have been segmented from, or excluded from, coverage that is required by NEPA.

Agencies must consider connected actions within the same EIS. 40 C.F.R. § 1508.25(a)(1). This prevents segmentation, the "attempt to circumvent [the] NEPA by breaking up one project into smaller projects and not studying the overall impacts of the single overall project." *Coalition on W. Valley Nuclear Wastes v. Chu*, 592 F.3d 306, 311 (2d Cir. 2009) (quoting *Stewart Park & Reserve Coal., Inc. v. Slater*, 352 F.3d 545, 559 (2d Cir.2003)) (internal quotation marks omitted). Connected actions include those that (1) "[a]utomatically trigger other actions which may require environmental impact statements"; that (2) "[c]annot or will not proceed unless other actions are taken previously or simultaneously"; or that (3) "[a]re interdependent parts of a larger action and depend on the larger action for their justification." 40 § 1508.25(a)(1).

Generally, in determining whether actions are connected so as to require consideration in the same EIS, courts employ an "independent utility" test, which asks whether each project would have taken place in the other's absence. *See, e.g., N. Plains Res. Council, Inc. v. Surface Transp. Bd.*, 668 F.3d 1067, 1087 (9th Cir. 2011); *Wilderness Workshop v. U.S. Bureau of Land Mgmt.*, 531 F.3d 1220, 1228-29 (10th Cir. 2008). If so, they have independent utility, and are not considered connected actions. *N. Plains Res. Council,* 668 F.3d at 1087-88. Here, transportation is the *sine qua non* of the ISP CISF; without shipment and delivery of SNF and GTCC waste, there is nothing to store.

The NRC must ensure, and find, that the rail, truck and barge routes used for delivery from reactor sites to ISP/WCS will not pose the potential for, or cause, disparate environmental impacts on the minority and low-income populations found in those transportation corridors. Severance of transportation aspects from the ISP/WCS application means that there will be no equitable steps taken to share the burdens and risks of accident, sabotage, terrorism, and/or routine radioactive exposure from the shipments. Segmentation is a serious legal mistake from an overall NEPA perspective as well as from the standpoint of Environmental Justice. Absent an embrace of EJ obligations under NEPA, the selection of transportation delivery routes is likely to

disproportionately burden local minority and low-income populations found in the respective transportation corridors, from the reactor sites all the way through to the ISP/WCS CISF.

The NRC Staff has not identified, nor analyzed, several critical issues related to SNF transportation. By effectively segmenting or excluding identification and analysis of transportation matters from the EIS, the NRC Staff is predetermining the outcome of the NEPA stage of ISP/WCS's application. Predetermination occurs when an agency irreversibly and irretrievably commits itself to a plan of action that is dependent upon the NEPA environmental analysis producing a certain outcome, before the agency has completed that environmental analysis — which of course is supposed to involve an objective, good faith inquiry into the environmental consequences of the agency's proposed action. *Forest Guardians v. U.S. Fish & Wildlife Serv*., 611 F.3d 692, 714 (10th Cir.2010). "[I]f an agency predetermines the NEPA analysis by committing itself to an outcome, the agency likely has failed to take a hard look at the environmental consequences of its actions due to its bias in favor of that outcome and, therefore, has acted arbitrarily and capriciously." *Id.* at 713.

The DEIS transportation analysis is a shallow glance, not a hard look. The DEIS must fulfill and satisfy to the fullest extent possible the requirements established for final environmental impact statements in section 102(2)(C) of NEPA. 40 C.F.R. § 1502.9(a). "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.* A revised DEIS is certainly required as to transportation aspects of the project.

VI. Failure to Consider Reasonable Alternatives Renders DEIS Inadequate And Incomplete

There are several reasonable alternatives which have not been identified nor analyzed in the DEIS.

Construction and operation of the licensed Private Fuel Storage CISF in Utah instead of ISP/WCS is an unconsidered reasonable alternative[17] (and is one that these commenters would oppose).

Licensing, construction and operation of the Holtec LLC CISF in New Mexico, is an unconsidered reasonable alternative (and is also one which these commenters oppose).

Construction of the ISP/WCS proposal, but including a Dry Transfer System, is a reasonable alternative to the pending application (which these commenters would oppose in any event).

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[17]The PFS license is still in effect. See ML14255A395, https://adamswebsearch2.nrc.gov/webSearch2/main.jsp?AccessionNumber=ML14255A395

The "evaluation of 'alternatives' mandated by NEPA is meant to be an evaluation of alternative means to accomplish the general goal of an action; it is not an evaluation of the alternative means by which a particular applicant can reach his goals." *Van Abbema v. Fornell*, 807 F.2d 633, 638 (7th Cir. 1986)); *also, Sierra Club v. Marsh*, 714 F.Supp. 539, 577 (D.Me. 1989). The existence of a reasonable, but unexamined, alternative renders the EIS inadequate. See *DuBois v. U.S. Dept. of Agric.*, 102 F.3d 1273, 1287 (1st Cir. 1996), *cert. denied,* 117 S.C. 1567 (1997).

The DEIS must fulfill and satisfy to the fullest extent possible the requirements established for final environmental impact statements in section 102(2)(C) of NEPA. 40 C.F.R. § 1502.9(a). "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.* A revised DEIS is obligatory here.

VII. Incomplete Off-Normal Events Analysis Renders DEIS Inadequate

Design Events II are associated with off-normal operations that can be expected to occur with moderate frequency, approximately once per year. These events could result in members of the general public being exposed to additional levels of radiation beyond those associated with normal operations. During normal operations and off-normal conditions, the requirements of 10 CFR Part 20 must be met. In addition, the annual dose equivalent to any individual located beyond the controlled area must not exceed 0.25 mSv [25 mrem] to the whole body, 0.75 mSv [75 mrem] to the thyroid, and 0.25 mSv [25 mrem] to any other organ.

The DEIS notes that ISP/WCS "evaluated for the proposed CISF (ISP, 2018) for an operating NUHOMS® system included cask handling, transfer vehicle moving, and canister transfer. Off-normal events evaluated for the NAC International (NAC) system components included blockage of half the storage cask air inlets, canister off-normal handling load, failure of instrumentation, small release of radioactive particulate from the canister exterior, and severe environmental conditions (e.g., hypothetical wind). Off-normal events evaluated for the MAGNASTOR system included crane failure during loaded transfer cask movements and crane/hoist failure during the transportable storage canister (TSC) transfer to the vertical concrete cask (VCC). The ISP safety evaluation of these off-normal events for each potential storage system concluded that the proposed storage system would not exceed applicable 10 CFR 72.106(b) dose limits to individuals at or beyond the controlled area boundary and would satisfy applicable acceptance criteria for maintaining safe operations regarding criticality, confinement, retrievability, and instruments and control systems (ISP, 2018)."

The NRC Staff's review and acceptance of the ISP off-normal design basis events analysis, however, is contingent upon the completion of the NRC safety evaluation report (SER) for the proposed CISF. DEIS at 4-95–4-96. Consequently, the NRC Staff cannot make a finding of the environmental impacts associated with off-normal events. And SER review and approval will happen well beyond the close of this public comment period. Thus the public is being deprived, due to mere scheduling concerns, of the opportunity to consider ISP off-normal design

basis events analysis for possible environmental concerns the events or analysis of them may raise.

The DEIS must fulfill and satisfy to the fullest extent possible the requirements established for final environmental impact statements in section 102(2)(C) of NEPA. 40 C.F.R. § 1502.9(a). "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.* A revised DEIS is required here.

VIII. The Staff Has Not Completed The FSER, Consequently The DEIS Contains No Radiological Accident Analysis And Is Incomplete

The NRC staff's review and acceptance of the ISP/WCS accident analysis is contingent upon the completion of the NRC FSER for the proposed CISF project. The NRC safety review staff has not yet evaluated ISP/WCS's accident analysis to determine if the required safety criteria have been met with an acceptable safety margin. Nor, of course, has that review been documented in the FSER. DEIS at 4-96. The NRC cannot grant a license for construction and operation of the proposed CISF project until it determines that all regulatory requirements of the AEA and NRC are satisfied.

The DEIS must fulfill and satisfy to the fullest extent possible the requirements established for final environmental impact statements in Section 102(2)(C) of NEPA. 40 C.F.R. § 1502.9(a). This means that maximum efforts are required to make the EIS information available to the public during the comment period. "If a draft statement is so inadequate as to preclude meaningful analysis, the agency shall prepare and circulate a revised draft of the appropriate portion." *Id.* A revised DEIS with new public comment opportunity is required here.

IX. The Continued Storage Rule Statement Is Inapplicable To ISP/WCS's First 120 Years

ISP/WCS has defined a site-specific spent nuclear fuel storage facility that does not qualify for the exclusions and automatic assumptions conferred by the Continued Storage GEIS. In the DEIS, the NRC Staff concluded that "For the period of time beyond the license term of the proposed CISF, the NRC's Continued Storage GEIS (NUREG–2157) and rule at 10 CFR 51.23 apply." The Staff insists that it need not consider environmental impacts beyond the initial 40-year license term (and thus avoid the controversy the commenters have raised in the license application litigation) by hiding behind a serious dissimulation. The Staff asserts in the DEIS:

> Although some characteristics of the proposed ISP CISF differ from the PFSF design, the Continued Storage GEIS acknowledges that not all storage facilities will necessarily match the "assumed generic facility," and therefore when it comes to "size, operational characteristics, and location of the facility, the NRC will evaluate the site-specific impacts of the construction and operation of any proposed facility as part of that facility's licensing process." Thus, based on the site-specific analysis contained in this EIS and in the NRC's accompanying SER, no further analysis of impacts beyond the license term of

the CISF is needed, and the impact determinations in the GEIS are incorporated by reference.

DEIS at 5-14. But NUREG-2157 does say that "not all storage facilities will necessarily match the "assumed generic facility." The GEIS states "the NRC assumes that any proposed away-from-reactor ISFSI ***would likely be similar*** to the assumed generic facility described above from the standpoint of the size, operational characteristics, and location of the facility. . . ." NUREG-2157 at 5-2. Contrary to the Staff's attempt to have a dry transfer ("DTS") system viewed as an "operational characteristic," the DTS is a functional, physical facility component of the ISFSI. *Id.* The Staff has contrived the conversion of a clear expectation expressed in NUREG-2157 that at some point there *must* be a DTS, into a mere option that can be rejected upon a whim.

The ISP/WCS proposal departs significantly from the Continued Storage GEIS parameters and assumptions, and does not qualify for protection from closer scrutiny in the CISF Environmental Impact Statement. According to the Continued Storage GEIS, there is no DTS capability anywhere in the United States, including at any of the nuclear plant sites from which spent nuclear fuel shipments to west Texas might originate.[18] Thus it appears that there may be leaking, damaged and/or externally contaminated casks that cannot be remediated anywhere, that may be sent to ISP/WCS and endangering workers, the public and the environment.

And the NRC Staff concedes that:

> Under some accident conditions, the radiation shielding on the transportation cask can be damaged, causing the radiation dose in the proximity of the package to increase. Under rare severe accident conditions, the potential for breaching a transportation cask and releasing a fraction of the radioactive contents is possible and has been considered in past SNF transportation risk assessments (NRC, 2014a, 2001; DOE, 2008). These prior assessments conservatively modeled accidental releases of radioactive material.

DEIS at 4-17. And:

> Potential accident scenarios associated with SNF transportation using rail could result in members of the general public being exposed to additional levels of radiation beyond those associated with normal operations. . . .

DEIS at 4-79. Implicitly, radiological effects could be major if the transportation of SNF is not error-free: "[T]he radiological impact to workers from incident-free transportation of SNF to and from the proposed CISF project would be SMALL." *Id.* Since the NRC admits there could be radiological damage to SNF en route to west Texas, and there is no DTS capability anywhere in

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[18]"Generic Environmental Impact Statement for Continued Storage of Spent Nuclear Fuel," NUREG-2157 ("Continued Storage GEIS") p. 2-20.

the country, it is the height of irresponsibility to maintain that NUREG-2157 should be so creatively misrepresented as to provide a shield to protect ISP/WCS from economic burdensomeness of having the capability from the first day SNF begins shipment.

The determination of when ISP/WCS's license would expire, and when the GEIS waivers and protections would attach, is unclear because the applicant may seek one or more additional 40-year license renewals. The GEIS bulwark is inapropos for the entirety of whatever time periods the ISP/WCS CISF is intended by its owner and the NRC to continue to be licensed and operating.

X. The DEIS Misrepresents The Availability Of Federal Price-Anderson Insurance As Mitigation For Transportation Accidents

The NRC Staff asserts that accidents involving SNF shipments would be tiny and not worth the trouble of calculating with any precision:

> As discussed in EIS Section 4.3.1.2.2.3, at full build-out (Phases 1-8), the NRC staff estimates that there will be less than three rail accidents of any severity. Therefore, the NRC staff expects there to be zero accidents that would result in a release of radioactive material or a loss of shielding. As a result, the NRC staff has not attempted to directly quantify the economic cost of any particular hypothetical accident in this EIS. Any attempt to calculate the economic costs of unlikely accidents with any precision is difficult, because the costs can differ significantly depending on variables such as the location and conditions of the accident; the nature of the contamination dispersion and deposition; level of development; and land use.

DEIS at 8-6.

But the Staff admits that the DOE has estimated costs for a severe, maximum radiological transportation accident:

> The NRC staff notes that for the Final Supplemental Environmental Impact Statement for a Geologic Repository for the Disposal of Spent Nuclear Fuel and High-Level Radioactive Waste at Yucca Mountain, Nye County, Nevada, final Yucca Mountain EIS (DOE, 2008), the U.S. Department of Energy (DOE) estimated that the costs for a severe, maximum reasonably foreseeable SNF transportation accident could range from $1 million to $10 billion.

Id.

And to placate any doubters, the Staff states that there is federal nuclear accident insurance available just in case shipping SNF to ISP/WCS induces a catastrophe:

> The Price-Anderson Act provides accident liability for incidents (including those

> caused by sabotage) involving the release of nuclear material for SNF transportation (NRC, 2019). Currently the amount of coverage per incident this Act provided is over $13 billion. In addition, Congress enacted legislation that developed a method to promptly consider compensation claims of the public for liabilities resulting from nuclear incidents that exceed this designated limit.

DEIS at 8-6 to 8-7.

But there is no Price-Anderson coverage available here. The federal Price-Anderson Act covers contractors who operate Department of Energy (DOE) nuclear facilities. P.L. 109-58 set the liability limit on DOE contractors at $10 billion per incident within the United States, to be adjusted for inflation every five years. The most recent inflation adjustment, in 2013, increased the limit to $12.7 billion. Price-Anderson authorizes DOE to indemnify its contractors for the entire amount of their liability, so that damage payments for nuclear incidents at DOE facilities would be paid by the Federal Government. ISP/WCS will not be a federal government contractor, and under the Nuclear Waste Policy Act, DOE has no authority to take title to, and manage, SNF waste that is destined for CISF storage (*viz*., DOE has no power to make ISP/WCS a DOE contractor) unless and until a permanent repository is licensed and operating. Since there is no scenario presently under which ISP/WCS can be a federal contractor for DOE, Price-Anderson coverage will not be available, and the representations in the DEIS are false and misleading.

An agency's action is held to be arbitrary and capricious when it relies on factors Congress did not want considered, or utterly fails to analyze an important aspect of the problem, or offers an explanation contrary to the evidence before it, or its explanation – as is apt here--is so implausible that it cannot be ascribed to differing views or agency expertise. *See Motor Vehicles Mfrs. Assn. v. State Farm Mut*., 463 U.S. 29, 43, 103 S.C. 2856, 2867 (1983).

XI. The Low-Level Radioactive Waste Analysis Fails To Account For Canister Repackaging

The DEIS proclaims the various stages of activity at ISP/WCS will generate small quantities of low-level radioactive waste ("LLRW"). According to the NRC Staff, "[t]he operations stage for the proposed action (Phase 1) and full build-out (Phases 1-8) would generate limited amounts of LLRW {approximately 11.7 cu. m [15.2 cu. yd] annually}, which would be disposed at the WCS LLRW facility. LLRW would consist of contamination survey rags, anticontamination garments, and other health physics materials." DEIS at xxxvi.

The NRC staff predicts minimal LLRW volumes from the massive decommissioning stage, which, as explained above, will necessarily involve onsite repackaging for shipment offsite of perhaps 20,000 transport, aging and disposal ("TAD") canisters. The Staff says of the decommissioning stage:

> For LLRW, decommissioning would generate 11.2 tons [12.3 short tons] for the proposed action (Phase 1) and 78.05 metric tons [86.03 short tons] of waste for full build-out

(Phases 1-8), which would be disposed at the WCS LLRW facility.

DEIS at xxxvii.

The vacuousness of this conclusion is breathtaking. Respecting low-level radioactive waste that can be anticipated from the overall construction, operation and decommissioning of ISP/WCS under optimal management, the DEIS fails the "hard look" required by NEPA. "[S]ome quantified or detailed information is required. Without such information, neither the courts nor the public ... can be assured that the [agency] provided the hard look that it is required to provide." *Neighbors of Cuddy Mountain v. United States Forest Service*, 137 F.3d 1372, 1379 (9th Cir. 1998).

XII. The NRC's Proposed Very Low-Level Waste Interpretive Rulemaking Should Be Accounted For And Analyzed

The NRC is conducting a proposed interpretive rulemaking at Docket ID NRC-2020-0065 entitled "Transfer of VLLW Nuclear Waste to Exempt Persons for Disposal," wherein the NRC proposes to reverse longstanding requirements for licensed control over radioactive wastes and materials generated by a licensed nuclear facility. The NRC seeks to abandon its regulatory authority over the destination and disposition of untold quantities of variably radioactive waste, dubbed "Very Low-Level Waste." The NRC's reinterpretation would authorize any of the 2,600 municipal and private sanitary and industrial landfills and hazardous waste sites in the United States to seek an "exemption" to receive and dispose of VLLW. These new facilities, which are quite controversial because they intrinsically will provide unregulated disposition sites for licensed radioactive material and waste by another name, will compete directly and cost-advantageously for LLRW business. It is foreseeable that instead of disposing of ISP/WCS low-level radioactive waste at the WCS LLRW dump, the newly-renamed VLLW will be dumped in any number of these cheaper, fly-by-night landfills.

The undersigned commenters have already noted how the DEIS fails to acknowledge the likelihood of thousands more tons of LLRW as a result of canister repackaging for disposal in a repository. If they are correct, the DEIS must account for the VLLW interpretive rulemaking and investigate and analyze its likely effects on the LLRW volumes and disposition as a result of construction, operation and decommission of the ISP/WCS facility.

XIII. DEIS Assumptions Involving Yucca Mountain As The Final SNF Repository Are Illegitimate For Any Purpose

There has been no final decision made by NRC either approving or disapproving the issuance of a construction authorization for a geologic repository at Yucca Mountain. *See* NWPA Sec. 114(d); 42 U.S.C. § 10,134(d). The NRC adjudicatory proceeding for the Yucca Mountain license application is currently suspended, and there is no date or criteria for its resumption. Nowhere within the NWPA is there any statutory requirement, or even an implication or presumption, that NRC must issue a decision approving or denying the Yucca

Mountain license application. The NRC Staff statements in the DEIS are erroneous.

The statement, "Unless and until Congress amends the statutory requirement, the NRC assumes that the transportation of SNF from the CISF to a permanent repository will be to a repository at Yucca Mountain, Nevada" - inaccurately assumes (a) that an authorization to construct a geologic repository at Yucca Mountain will be issued by NRC, (b) that Yucca Mountain will be constructed by DOE in accordance with that authorization, and © that NRC will issue an additional license authorizing DOE to receive and possess SNF at the Yucca Mountain site. These assumptions are even more objectionable because they were made by NRC Staff (supposedly an impartial regulator) notwithstanding that NRC is still considering the Yucca Mountain license application and NRC has not yet made a decision to grant (or deny) that application. While NRC Staff is arguably free to assume in the DEIS that SNF at the ISP/WCS CISF will be transported to a geologic repository, at some point in the future, it cannot assume that Yucca Mountain will be that geologic repository.

The NRC Staffs' erroneous assumption is not consistent with the NRC's existing regulations. Under 10 C.F.R. § 51.80(b)(1), the DEIS must incorporate NUREG-2157, which is the NRC's generic environmental impact statement (GEIS) on extended SNF storage. In the GEIS NRC found it most likely that "a repository" will be available, but not that a repository at Yucca Mountain will be available. *See* 79 Fed. Reg. 56,238, 56,254 (Sept. 19, 2014).

The Yucca Mountain proposal also is illegal, as it would violate the Treaty of Ruby Valley of 1863, signed by the U.S. government with the Western Shoshone Indian Nation, and the Shoshones have made it clear in their intervention in prior Yucca licensing proceedings that they intend to contest on the treaty problem as well as other bases.

In sum, the NRC Staff cannot assume in the ISP/WCS DEIS that either a construction authorization for Yucca Mountain or a license to possess SNF at Yucca Mountain will be issued without prejudging the outcome of the still-pending and highly contested construction authorization proceeding required by Section 114(d) of the NWPA, 42 U.S.C. § 10134(d), and Section 189a the Atomic Energy Act, as amended, 42 U.S.C. § 2239(a). The DEIS's dependence on such an assumption is contrary to law and unfounded, and all conclusions derived from that assumption are false and contradict NEPA.

XIV. Objection To Recent Alterations To NEPA Regulations And Interpretations

The undersigned commenters object to any reliance on or application of President Trump's June 4, 2020 "Executive Order on Accelerating the Nation's Economic Recovery from the COVID-19 Emergency by Expediting Infrastructure Investments and Other Activities" on the ground that it is unconstitutional, violates NEPA, violates the federal Administrative Procedures Act, violates the Atomic Energy Act and the Nuclear Waste Policy Act, and comprises an unlawful rulemaking.

The undersigned commenters further object to any reliance on, or application of the

Council on Environmental Quality's ("CEQ") new NEPA regulations issued July 16, 2020 because they are unconstitutional, violate NEPA and violate the Administrative Procedure Act. The below commenters state that the objectionable proposals of the CEQ are "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 5 U.S.C. § 706(2)(C).

XV. Conclusion

Taken as a whole, this DEIS does not "fulfill and satisfy to the fullest extent possible the requirements established for final statements in section 102(2)(C) of the Act." 40 C.F.R. § 1502.9(a). The agency "must insure that environmental information is available to public officials and citizens" and this "information must be of high quality" as "[a]ccurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 C.F.R. § 1500.1(b). NEPA "emphasizes the importance of coherent and comprehensive up-front environmental analysis to ensure informed decision making to the end that 'the agency will not act on incomplete information, only to regret its decision after it is too late to correct.'" *Blue Mountains Biodiversity Project v. Blackwood*, 161 F.3d 1208, 1216 (9th Cir. 1998) (quoting *Marsh v. Or. Natural Res. Council*, 490 U.S. 360, 371, 109 S.C. 1851, 104 L.Ed.2d 377 (1989)). Here, the NRC asks the public "to assume the adequacy and accuracy of partial data without providing any basis for doing so. NEPA requires more." *WildEarth Guardians v. Montana Snowmobile Ass'n*, 790 F.3d 920, 927, (9th Cir. 2015).

The NRC's Draft Environmental Impact Statement for the ISP/WCS CISF must be corrected, revised and republished for public review and comment.

Thank you.

Sincerely,

/s/ Terry J. Lodge
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Counsel for Don't Waste Michigan, Citizens for Alternatives to Chemical Contamination, Public Citizen, Inc., San Luis Obispo Mothers for Peace, Nuclear Energy Information Service, Citizens' Environmental Coalition, Sustainable Energy and Economic Development Coalition and Leona Morgan