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NUREG-2237
Supplement 1

Environmental Impact Statement for the Holtec International's License Application for a Consolidated Interim Storage Facility for Spent Nuclear Fuel in Lea County, New Mexico

Supplement 1

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Environmental Impact Statement for the Holtec International's License Application for a Consolidated Interim Storage Facility for Spent Nuclear Fuel in Lea County, New Mexico

Supplement 1

Manuscript Completed: October 2022
Date Published: October 2022

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ABSTRACT

This report supplements NUREG-2237, "Environmental Impact Statement for the Holtec International's License Application Request for a Consolidated Interim Storage Facility for Spent Nuclear Fuel and High Level Waste," dated July 2022. The U.S. Nuclear Regulatory Commission (NRC) in cooperation with the U.S. Bureau of Land Management (BLM) Carlsbad Field Office, prepared the environmental impact statement (EIS) as part of its environmental review of the Holtec International's (Holtec) license application to construct and operate a consolidated interim storage facility (CISF) for spent nuclear fuel (SNF) and Greater-Than-Class C waste, along with a small quantity of mixed oxide fuel. The New Mexico Environment Department (NMED) participated in the environmental review as a cooperating agency by providing special expertise for water resources in and around the proposed site. The NMED's participation in the environmental review does not imply NMED concurrence in the final EIS or its conclusions. All impact determinations made in the EIS should not be attributed to the NMED, but only the NRC and BLM. The proposed CISF would be located in southeast New Mexico at a site located approximately halfway between the cities of Carlsbad and Hobbs, New Mexico. The EIS includes the NRC staff's evaluation of the environmental impacts of the proposed action and the No-Action alternative. The proposed action is the issuance of an NRC license authorizing the initial phase (Phase 1) of the project to store up to 8,680 metric tons of uranium (MTUs) [9,568 short tons] in 500 canisters for a license period of 40 years. Holtec plans to subsequently request amendments to the license to store an additional 500 canisters for each of 19 expansion phases of the proposed CISF (a total of 20 phases), to be completed over the course of 20 years, and to expand the proposed facility to eventually store up to 10,000 canisters of SNF.

Holtec's expansion of the proposed project (i.e., Phases 2-20) is not part of the proposed action currently pending before the agency. However, as a matter of discretion, the NRC staff considered these expansion phases in its description of the affected environment and impact determinations in the EIS, where appropriate, when the environmental impacts of the potential future expansion could be determined to conduct a bounded analysis for the proposed CISF project. For the bounding analysis, the NRC staff assumes the storage of up to 10,000 canisters of SNF. The final EIS documents the NRC's analysis, which considered and weighed the impacts of constructing and operating the proposed Holtec CISF.

The NRC issued NUREG-2237 in draft form in March 2020 and accepted comments until September 22, 2020, for a total 180-day comment period. Appendix D to the final EIS identifies and responds to the comments received on the draft EIS. However, two comment letters that were submitted to the NRC during the comment period on the draft EIS were inadvertently not included in Appendix D to the final EIS. The comment letters were discovered after the publication of the final EIS in July 2022. This Supplement to NUREG-2237 considers and responds to these two comment letters. This Supplement documents the NRC's evaluation of each of these comment letters that were not included in the final EIS. While the comments do not provide new and significant information regarding the project or its environmental impacts, the NRC staff is of the opinion that, in view of the circumstances described above, and in accordance with 10 CFR 51.92(c), preparation of a supplement to the final EIS will further the purposes of the National Environmental Policy Act of 1969, as amended (NEPA).

On the basis of the information documented in the final EIS (NUREG-2237) and this Supplement, the NRC staff finds that the comment letters not included in the final EIS did not provide information that would change the analysis in the final EIS or the NRC staff's

recommendation to the Commission to issue a license to Holtec authorizing the initial phase of the project, subject to the determinations in the staff's safety review of the application.

The NRC staff bases this recommendation on the following:

- the environmental report submitted by Holtec
- the NRC staff's consultation with Federal, State, Tribal, and local government agencies
- the NRC staff's independent environmental review
- the NRC staff's consideration of public comments received during the scoping process
- the NRC staff's consideration of public comments on the draft EIS, including those responded to in this Supplement.

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BACKGROUND

By letter dated March 30, 2017, the U.S. Nuclear Regulatory Commission (NRC) received an application from Holtec International (Holtec) requesting a license that would authorize Holtec to construct and operate a consolidated interim storage facility (CISF) for spent nuclear fuel (SNF) and Greater-Than-Class C (GTCC) waste, along with a small quantity of mixed-oxide fuel, which are collectively referred to in this document as SNF, and composed primarily of spent uranium-based fuel. The license application includes an Environmental Report (ER), a Safety Analysis Report (SAR), and other relevant documents. Holtec prepared the license application in accordance with requirements in Title 10 of the *Code of Federal Regulations* (10 CFR) Part 72, *Licensing Requirements for the Independent Storage of Spent Nuclear Fuel, High-Level Radioactive Waste, and Reactor-Related Greater Than Class C Waste*. The environmental impact statement (EIS) NUREG-2237 (NRC, 2022) and this supplement were prepared consistent with NRC's National Environmental Policy Act (NEPA) -implementing regulations contained in 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions" and the NRC staff guidance in NUREG-1748, "Environmental Review Guidance for Licensing Actions Associated with NMSS Programs" (NRC, 2003).

The proposed action is the issuance, under the provisions of 10 CFR Part 72, of an NRC license authorizing the construction and operation of the proposed Holtec CISF in southeastern New Mexico at a site located approximately halfway between the cities of Carlsbad and Hobbs, New Mexico. Holtec requests authorization for the initial phase (Phase 1) of the proposed project to store 5,000 metric tons of uranium (MTUs) [5,512 short tons] in 500 canisters for a 40-year license period. However, because the capacity of individual canisters can vary, the 500 canisters proposed in the Holtec license application have the potential to hold up to 8,680 MTUs [9,568 short tons]. Therefore, the analysis in the EIS and in the corresponding NRC safety review will analyze the storage of up to 8,680 MTUs [9,568 short tons] for Phase 1.

Holtec anticipates subsequently requesting amendments to the license to store an additional 5,000 MTUs [5,512 short tons] for each of 19 expansion phases of the proposed CISF to be completed over the course of 20 years to expand the facility to eventually store up to 10,000 canisters of SNF). Holtec's expansion of the proposed project (i.e., Phases 2-20) is not part of the proposed action currently pending before the agency. However, the NRC staff considered these expansion phases in its description of the affected environment and impact determination, where appropriate, when the environmental impacts of the potential future expansion were able to be determined to conduct a bounding analysis for the proposed CISF project. The NRC staff conducted this analysis as a matter of discretion because Holtec provided the analysis of the environmental impacts of the future anticipated expansion of the proposed facility as part of its license application. For the bounding analysis, the NRC staff assumes the storage of up to 10,000 canisters of SNF.

The NRC identified the U.S. Bureau of Land Management (BLM) as a cooperating agency for the Holtec CISF environmental review. The transfer of SNF to and from the main rail line to the proposed CISF would occur using a rail spur. The proposed rail spur would be constructed on BLM land and require BLM permitting. The Memorandum of Understanding (MOU) between the NRC and BLM can be found using the Agencywide Documents Access and Management System (ADAMS) (Accession No. ML18248A133) (NRC, 2018). BLM will be the agency

responsible for issuing the appropriate right-of-way for the rail spur and permitting any other project-related actions on BLM land. The EIS and this Supplement will serve to fulfill the NEPA responsibilities of both the NRC and BLM, with both agencies issuing a separate Record of Decision.

At the request of the State of New Mexico, the New Mexico Environment Department (NMED) was identified as a cooperating agency having special expertise in surface water and groundwater resources for the proposed CISF project. The NRC staff coordinated with NMED staff on water resources for the EIS to describe the affected environment, potential impacts from the proposed project, cumulative impacts, and any additional mitigation measures. The NMED does not have any obligations under NEPA related to the proposed project; however, NMED provided special expertise for water resources in and around the proposed site.

The scope of the EIS includes an evaluation of the radiological and non-radiological environmental impacts of consolidated interim storage of SNF at the proposed CISF location and the No-Action alternative, as well as mitigation measures to either reduce or avoid adverse effects. It also includes the NRC staff's recommendation regarding the proposed action.

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the proposed Holtec CISF is to provide an option for storing SNF from nuclear power reactors before a permanent repository is available. SNF would be received from operating, decommissioning, and decommissioned reactor facilities.

The proposed CISF is needed to provide away-from-reactor SNF storage capacity that would allow SNF to be transferred from existing reactor sites and stored for the 40-year license term before a permanent repository is available. Additional away-from-reactor storage capacity is needed, in particular, to provide the option for away-from-reactor storage so that stored SNF at decommissioned reactor sites may be removed so the land at these sites is available for other uses. This definition of purpose and need reflects the Commission's recognition that, unless there are findings in the safety review or findings in the NEPA environmental analysis that would lead the NRC to reject a license application, the NRC has no role in a company's business decision to submit a license application to operate a CISF at a particular location.

The BLM purpose and need is to provide direction for managing public lands the BLM administers in accordance with its mandate under the Federal Land Policy and Management Act of 1976. The proposed rail spur is needed to efficiently transfer SNF from existing rail lines to the proposed CISF.

THE PROJECT AREA

The proposed CISF project would be built and operated on approximately 421 hectares (ha) [1,040 (acres) ac] of land in Lea County, New Mexico (EIS Figure 2.2-1). The storage and operations area, which is a smaller land area within the full property boundary, would include 134 ha [330 ac] of disturbed land. The proposed project area is approximately 51 kilometers (km) [32 miles (mi)] east of Carlsbad, New Mexico, and 54 km [34 mi] west of Hobbs, New Mexico. Currently, the proposed project area is privately owned by the Eddy-Lea Energy Alliance LLC (ELEA); however, Holtec has committed to purchasing the property from ELEA if the NRC licenses the proposed facility. The proposed project area is located 0.84 km [0.52 mi] north of U.S. Highway 62/180 and consists of mostly undeveloped land used for cattle grazing.

Facility Construction, Operations, and Decommissioning and Reclamation

During the construction of the proposed action (Phase 1) of the CISF, Holtec would excavate multiple areas to accommodate and install the underground portions of the facilities. For the proposed action (Phase 1), the proposed CISF would be prepared by excavating a pit that would house the SNF canisters in the vertical ventilated modules (VVMs). Soil would be excavated for each subsequent phase; however, for the proposed action (Phase 1) the largest amount of soil would be excavated for construction of the facility buildings (e.g., security and administration buildings) and associated infrastructure, the access road, relocating the existing road that currently runs through the proposed project area, construction of the rail spur, and construction of the parking lot.

During CISF operations, transportation casks containing canisters of SNF would arrive via rail car. Upon arrival, casks would be surveyed and inspected, moved to a cask transfer building, transported in a transfer cask to the storage pad area, and installed in the appropriate storage module at the independent spent fuel storage installation (ISFSI) pad. When a geologic repository becomes available, the SNF stored at the proposed CISF would be removed and sent to the repository for disposal. Removal of the SNF from the proposed CISF, or defueling, would involve similar activities to those associated with shipping SNF from nuclear power plants and ISFSIs and emplacement of SNF at the proposed CISF project and is considered part of the operations stage of the proposed project.

Decommissioning and reclamation of the proposed facility would include the dismantling of the proposed facility and rail spur. The decommissioning evaluation in this EIS is based on currently available information and plans. At the end of the license term of the proposed CISF project, once the SNF inventory is removed, the facility would be decommissioned such that the proposed project area and remaining facilities could be released, and the license terminated. Decommissioning activities, in accordance with 10 CFR Part 72 requirements, would include conducting radiological surveys and decontaminating, if necessary. Holtec has committed to reclamation of nonradiological-related aspects of the proposed project area. Reclamation would include dismantling and removing equipment, materials, buildings, roads, the rail spur, and other onsite structures; cleaning up areas; waste disposal; controlling erosion; and restoring and reclaiming disturbed areas. Because decommissioning and reclamation are likely to take place well into the future, technological changes that could improve the decommissioning and reclamation processes cannot be predicted. As a result, the NRC requires that licensees applying to decommission an ISFSI (such as the proposed CISF) submit a Decommissioning Plan. The requirements for the Final Decommissioning Plan are delineated in 10 CFR 72.54(d), 72.54(g), and 72.54(i). The NRC staff would undertake a separate evaluation and NEPA review and prepare an environmental assessment or EIS, as appropriate, at the time the Decommissioning Plan is submitted to the NRC.

ALTERNATIVES

The NRC environmental review regulations that implement NEPA in 10 CFR Part 51 require the NRC to consider reasonable alternatives, including the No-Action alternative, to a proposed action (Phase 1). The alternatives have been established based on the purpose and need for the proposed project. Under the No-Action alternative, the NRC would not approve the Holtec license application for the proposed CISF. The No-Action alternative would result in Holtec not constructing or operating the proposed CISF. As further detailed in EIS Section 2.3, other alternatives considered at the proposed CISF Project but eliminated from detailed analysis include storage at a government-owned CISF, alternative design and storage technologies, an

alternative location, and an alternative facility layout. These alternatives were eliminated from detailed study because they either would not meet the purpose and need of the proposed project or would cause greater environmental impacts than the proposed action.

SUMMARY OF ENVIRONMENTAL IMPACTS

The EIS includes the NRC staff analysis that considers and weighs the environmental impacts from the construction, operations, and decommissioning and reclamation of the proposed CISF Project and for the No-Action alternative. The EIS also describes mitigation measures for the reduction or avoidance of potential adverse impacts that (i) the applicant has committed to in its license application, (ii) would be required under other Federal and State permits or processes, or (iii) are additional measures the NRC staff identified as having the potential to reduce environmental impacts, but that the applicant did not commit to in its application.

NUREG-1748 categorizes the significance of potential environmental impacts as follows:

SMALL: The environmental effects are not detectable or are so minor that they would neither destabilize nor noticeably alter any important attribute of the resource.

MODERATE: The environmental effects are sufficient to alter noticeably, but not destabilize, important attributes of the resource.

LARGE: The environmental effects are clearly noticeable and are sufficient to destabilize important attributes of the resource.

Chapter 4 of the EIS presents a detailed evaluation of the environmental impacts from the proposed action and the No-Action alternative on resource areas at the proposed CISF. For each resource area, the NRC staff identifies the significance level during each stage of the proposed project: construction, operations, and decommissioning and reclamation. The impacts for each resource area are also summarized in the Executive Summary of the final EIS.

For brevity in this Supplement, Table ES–1 summarizes the significance level (SMALL, MODERATE, or LARGE) of potential environmental impacts of the proposed action and the No-Action alternative. For each resource area, the NRC staff also summarizes the significance level during each stage of the proposed project: construction, operations, and decommissioning and reclamation. This table is reproduced from Table 2.4-1 of the EIS.

Table ES–1 Summary of Impacts for the Proposed CISF Project

	Land Use		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Transportation		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE

Table ES–1 Summary of Impacts for the Proposed CISF Project			
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Geology and Soils		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Surface Water		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Groundwater		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Ecology		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL to MODERATE	SMALL to MODERATE	NONE
Operation	SMALL to MODERATE	SMALL to MODERATE	NONE
Decommissioning and Reclamation	SMALL to MODERATE	SMALL to MODERATE	NONE
	Air Quality		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Noise		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE

Table ES–1 Summary of Impacts for the Proposed CISF Project			
	Historic and Cultural		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL. Based on completion of consultation under NHPA Section 106, the NRC staff's conclusion is that the proposed project would have no effect on historic properties.	SMALL. Based on completion of consultation under NHPA Section 106, the NRC staff's conclusion is that the proposed project would have no effect on historic properties.	NONE
Operation	SMALL. Based on completion of consultation under NHPA Section 106, the NRC staff's conclusion is that the proposed project would have no effect on historic properties.	SMALL. Based on completion of consultation under NHPA Section 106, the NRC staff's conclusion is that the proposed project would have no effect on historic properties.	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Visual and Scenic		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Socioeconomics		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL to MODERATE (beneficial to employment, public services, and local finance)	SMALL to MODERATE (beneficial to employment, public services, and local finance)	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL to MODERATE (beneficial to employment, public services, and local finance)	SMALL to MODERATE (beneficial to employment, public services, and local finance)	NONE

Table ES–1 Summary of Impacts for the Proposed CISF Project			
	Environmental Justice		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	No disproportionately high and adverse human health and environmental effects	No disproportionately high and adverse human health and environmental effects	No disproportionately high and adverse human health and environmental effects
Operation	No disproportionately high and adverse human health and environmental effects	No disproportionately high and adverse human health and environmental effects	No disproportionately high and adverse human health and environmental effects
Decommissioning and Reclamation	No disproportionately high and adverse human health and environmental effects	No disproportionately high and adverse human health and environmental effects	No disproportionately high and adverse human health and environmental effects
	Public and Occupational Health		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL	NONE
	Waste Management		
	Proposed Action (Phase 1)	**Phases 2-20**	**No-Action**
Construction	SMALL	SMALL	NONE
Operation	SMALL	SMALL	NONE
Decommissioning and Reclamation	SMALL	SMALL to MODERATE (until a new landfill is established)	NONE

CUMULATIVE IMPACTS

Chapter 5 of the EIS provides the NRC staff's evaluation of potential cumulative impacts from the construction, operations, and decommissioning and reclamation of the proposed CISF, considering other past, present, and reasonably foreseeable future actions. Cumulative impacts from past, present, and reasonably foreseeable future actions were considered and evaluated in the EIS, regardless of what agency (Federal or non-Federal) or person undertook the action. The NRC staff determined that the SMALL to MODERATE impacts from the proposed project would contribute SMALL to MODERATE impacts to the SMALL to MODERATE cumulative impacts that exist in the area due primarily to oil and gas exploration activities, nuclear facilities, and potential wind and solar projects.

SUMMARY OF COSTS AND BENEFITS OF THE PROPOSED ACTION

The cost-benefit analysis in the EIS compares the costs and benefits of the proposed action to the No-Action alternative using various scenarios and discounting rates. The proposed project

would generate primarily regional and local costs and benefits, both from an environmental and economic perspective. For the environmental costs and benefits, the key distinction between the proposed CISF and the No-Action alternative is the location where the impacts occur. Under the proposed action (Phase 1), the environmental impacts of storing SNF would occur at the proposed CISF site, and environmental impacts would continue to occur at the nuclear power plant and ISFSI sites whose licensees did not transfer all fuel to the proposed CISF. Under the No-Action alternative, environmental impacts from storing SNF would continue to occur at the generation site ISFSI, and new impacts would not occur at the proposed CISF site. In addition, because the proposed CISF would involve two transportation campaigns (shipment from the nuclear power plants and ISFSIs to the CISF and from the CISF to a repository), compared to one shipping campaign under the No-Action alternative, the No-Action alternative results in a net reduction in overall occupational and public exposures from the transportation of SNF because of the lower overall distance traveled.

The regional benefits of building the proposed CISF would be increased employment, economic activity, and tax revenues in the region around the proposed site. For both the proposed action (Phase 1) and full build-out (Phases 1-20), the NRC staff compared the proposed CISF costs to the No-Action alternative costs. In all cases for Phase 1, the No-Action alternative costs exceed the proposed action (Phase 1) costs (i.e., a net benefit for the proposed CISF). For full build-out (Phases 1-20), some cases resulted in a net benefit, while other cases resulted in a net cost.

NO-ACTION ALTERNATIVE

Under the No-Action alternative, the NRC would not approve the Holtec license application for the proposed CISF in Lea County, New Mexico. The No-Action alternative would result in Holtec not constructing or operating the proposed CISF. No concrete storage pad or infrastructure (e.g., rail spur or cask-handling building) for transporting and transferring SNF to the proposed CISF would be constructed. SNF destined for the proposed CISF would not be transferred from commercial reactor sites (in either dry or wet storage) to the proposed facility. In the absence of a CISF, the NRC staff assumes that SNF would remain on site in existing wet and dry storage facilities and be stored in accordance with NRC regulations and be subject to NRC oversight and inspection. Site-specific impacts at each of these storage sites would be expected to continue as detailed in generic or site-specific environmental analyses. In accordance with current U.S. policy, the NRC staff also assumes that the SNF would be transported to a permanent geologic repository, when such a facility becomes available. Inclusion of the No-Action alternative in the EIS is a NEPA requirement and serves as a baseline for comparison of environmental impacts of the proposed action.

RECOMMENDATION

After comparing the impacts of the proposed action (Phase 1) to the No-Action alternative, the NRC staff, in accordance with 10 CFR 51.91(d), recommends the proposed action (Phase 1), which is the issuance of an NRC license to Holtec to construct and operate a CISF for SNF at the proposed location, subject to the determinations in the staff's safety review of the application. In addition, BLM staff recommends the issuance of a permit to construct and operate the rail spur. This recommendation is based on (i) the license application, which includes the ER and supplemental documents and Holtec's responses to the NRC staff's requests for additional information; (ii) consultation with Federal, State, Tribal, and local agencies, and input from other stakeholders, including comments on the draft EIS; (iii) independent NRC and BLM staff review; and (iv) the assessments provided in the EIS.

On the basis of the information documented in the final EIS (NUREG-2237) and this Supplement, the NRC staff finds that the comment letters not included in the final EIS but responded to in this Supplement did not provide information that would change the analysis in the final EIS or the NRC staff's recommendation to the Commission to issue a license to Holtec authorizing the initial phase of the project, subject to the determinations in the staff's safety review of the application.

The NRC staff bases this recommendation on the following:

- the environmental report submitted by Holtec
- the NRC staff's consultation with Federal, State, Tribal, and local government agencies
- the NRC staff's independent environmental review
- the NRC staff's consideration of public comments received during the scoping process
- the NRC staff's consideration of public comments on the draft EIS, including those responded to in this Supplement.

ABBREVIATIONS AND ACRONYMS

10 CFR	Title 10 of the *Code of Federal Regulations*
ADAMS	Agencywide Documents Access and Management System
AEA	Atomic Energy Act
APA	Administrative Procedures Act
APE	Area of Potential Effect
BEA	U.S. Bureau of Economic Analysis
BLM	U.S. Bureau of Land Management
CEQ	Council on Environmental Quality
CISF	consolidated interim storage facility
DOE	U.S. Department of Energy
DPA	Designated Potash Area
EA	Environmental Assessment
EIS	Environmental Impact Statement
ELEA	Eddy-Lea Energy Alliance
ER	Environmental Report
FR	Federal Register
FRN	Federal Register Notice
GEIS	Generic Environmental Impact Statement
GTCC	Greater-Than-Class C
ha	hectares
HELMS	Hardened Extended-Life Local Monitored Surface Storage
HI-STORM UMAX	Holtec International Storage Module Underground MAXimum
Holtec	Holtec, International
HOSS	Hardened On-Site Storage
IAEA	International Atomic Energy Agency
ISFSI	independent spent fuel storage installation
ISP	Interim Storage Partners
km	kilometers
mi	miles
MOU	Memorandum of Understanding
MTUs	metric tons of uranium
NEPA	National Environmental Policy Act of 1969, as amended
NHPA	National Historic Preservation Act
NM SHPO	New Mexico State Historic Preservation Office
NMED	New Mexico Environment Department
NMOCD	New Mexico Oil Conservation District
NRC	U.S. Nuclear Regulatory Commission

PFS	Private Fuel Storage
RAIs	requests for additional information
RIMS	Regional Input-Output Modeling System (RIMS)
ROI	Radius of Influence
ROW	right-of-way
SAR	Safety Analysis Report
SER	Safety Evaluation Report
SNF	spent nuclear fuel
USCB	U.S. Census Bureau
U.S.	United States
VVMs	vertical ventilated modules
WIPP	Waste Isolation Pilot Plant

INTRODUCTION

This document is a supplement to NUREG-2237, Environmental Impact Statement for the Holtec International's License Application Request for a Consolidated Interim Storage Facility for Spent Nuclear Fuel and High Level Waste," dated July 2022 (NRC, 2022). The U.S. Nuclear Regulatory Commission (NRC) prepared the environmental impact statement (EIS) as part of its environmental review of the Holtec International (Holtec) license application to construct and operate a consolidated interim storage facility (CISF) for spent nuclear fuel (SNF) and Greater-Than-Class C waste, along with a small quantity of mixed oxide fuel. The NRC identified the U.S. Bureau of Land Management (BLM) as a cooperating agency for the Holtec CISF environmental review. The transfer of SNF to and from the main rail line to the proposed CISF would occur using a rail spur. The proposed rail spur would be constructed on BLM land and require BLM permitting. The Memorandum of Understanding (MOU) between the NRC and BLM can be found using the Agencywide Documents Access and Management System (ADAMS) (Accession No. ML18248A133) (NRC, 2018). BLM will be the agency responsible for issuing the appropriate right-of-way for the rail spur and permitting any other project-related actions on BLM land. The EIS will serve to fulfill the NEPA responsibilities of both the NRC and BLM, with both agencies issuing a separate Record of Decision.

At the request of the State of New Mexico, the New Mexico Environment Department (NMED) was identified as a cooperating agency having special expertise in surface water and groundwater resources for the proposed CISF project. The NRC staff coordinated with NMED staff on water resources for the EIS to describe the affected environment, potential impacts from the proposed project, cumulative impacts, and any additional mitigation measures. The NMED does not have any obligations under NEPA related to the proposed project; however, NMED provided special expertise for water resources in and around the proposed site.

The proposed CISF would be located in southeast New Mexico at a site located approximately halfway between the cities of Carlsbad and Hobbs, New Mexico. The EIS includes the NRC staff's evaluation of the environmental impacts of the proposed action and the No-Action alternative. The proposed action is the issuance of an NRC license authorizing the initial phase (Phase 1) of the project to store up to 8,680 metric tons of uranium (MTUs) [9,568 short tons] in 500 canisters for a license period of 40 years. Holtec plans to subsequently request amendments to the license to store an additional 500 canisters for each of 19 expansion phases of the proposed CISF (a total of 20 phases), to be completed over the course of 20 years, and to expand the proposed facility to eventually store up to 10,000 canisters of SNF.

Holtec's expansion of the proposed project (i.e., Phases 2-20) is not part of the proposed action currently pending before the agency. However, as a matter of discretion, the NRC staff considered these expansion phases in its description of the affected environment and impact determinations in the EIS, where appropriate, when the environmental impacts of the potential future expansion could be determined so as to conduct a bounded analysis for the proposed CISF project. For the bounding analysis, the NRC staff assumes the storage of up to 10,000 canisters of SNF.

The scope of the EIS includes an evaluation of the radiological and non-radiological environmental impacts of consolidated interim storage of SNF at the proposed CISF location and the No-Action alternative, as well as mitigation measures to either reduce or avoid adverse effects. It also includes the NRC staff's recommendation regarding the proposed action. The NRC staff's determinations and recommendations can be found throughout the EIS and are summarized in the Executive Summary of this Supplement.

BACKGROUND

Following receipt and acceptance of Holtec International's license application for the proposed CISF, the NRC conducted a scoping process for the EIS, as documented in a Scoping Summary Report (NRC, 2019a). The NRC staff then developed a draft EIS and issued a *FR* Notice on March 20, 2020, notifying the public of the availability of the draft EIS and requesting public comment (85 FR 16150). The NRC notice provided for a 60-day public comment period, ending May 22, 2020. However, the NRC staff recognized that the pandemic and associated public health emergency created unique challenges for all stakeholders - including members of the public - to be able to participate in the public comment process. In response to requests for a comment period extension and in recognition of these challenges, the NRC extended the comment deadline on April 27, 2020, for an additional 60 days until July 22, 2020 (85 FR 23382) and again on June 24, 2020, for an additional 60 days until September 22, 2020 (85 FR 37964). This resulted in a 180-day comment period, which is 60 days longer than the 120-day public comment period provided during scoping.

As a result of the pandemic and associated public health emergency, and consistent with the practice of several other Federal agencies, the NRC modified its public interactions from in-person meetings to virtual meetings, such as webinars. This change allowed opportunities for oral comments while maintaining safety protocols for NRC staff and stakeholders. Comments received at webinar public meetings were handled and considered in the same way as those received during in-person public comment meetings: a transcript was taken of the meeting and made available to the public, and the comments were grouped with comments received through other means (e.g., mail and email) for NRC staff response. Public meetings held through webinar also allowed for national participation.

The NRC staff strives to conduct its regulatory activities in an open and transparent manner and to make information as accessible as possible to optimize public participation. For the draft EIS public comment process, the NRC staff published *FR* Notices and press releases, placed newspaper ads, posted information to the NRC website, and sent copies of materials to libraries closest to the proposed CISF site and mailed hard copies of the draft EIS to those that requested it. As previously noted, the NRC extended the public comment period to 180 days, during which comments were also received by email, mail, or through regulations.gov.

The NRC accepted all comments on the draft EIS received on or before September 22, 2020. The NRC received approximately 4,807 comment correspondence, including form letters. From these, the NRC identified 428 unique correspondence that were delineated into a total of 3,718 unique comments. Appendix D of the final EIS contains summaries of these comments by subject matter area and topic and the NRC staff's responses to the comments. Where applicable, the responses in EIS Appendix D note which EIS sections the NRC staff edited in response to comments.

Two comment letters that were submitted to the NRC during the comment period on the draft EIS were inadvertently not included in Appendix D to the final EIS. The comment letters were discovered after the publication of the final EIS in July 2022. This Supplement to the final EIS (NUREG-2237) considers and responds to these two comment letters and documents the NRC's evaluation of each of these comment letters that were not included in the final EIS. While the comments do not provide new and significant information regarding the project or its environmental impacts, the NRC staff is of the opinion that, in view of the circumstances described above, and in accordance with 10 CFR 51.92(c), preparation of a Supplement to the

final EIS will further the purposes of the National Environmental Policy Act of 1969, as amended (NEPA).

All comment letters, regulations.gov posts, e-mail messages, and transcripts of the public meetings are available in the NRC's Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible at http://www.nrc.gov/reading-rm.html. The ADAMS accession numbers for the unique comment letters received on the draft EIS, not including the two comment letters not included in the final EIS, are provided in the tables in Appendix D of the final EIS (NUREG-2237). The ADAMS accession number for NUREG-2237 is ML22181B094. The ADAMS accession numbers for the two comment letters addressed in this Supplement are provided in Table S–1 in the Disposition of Comments section. Table S–1 also provides a list of commenter names and a unique identifier that is used throughout this Supplement.

DISPOSITION OF COMMENTS

Similar to the manner in which the NRC staff addressed comments on the draft EIS, each of the comment letters addressed in this Supplement was given a unique correspondence identifier, allowing each set of comments from a commenter to be traced back to the original document in which the comments were submitted. The NRC staff considered and dispositioned the comments received, assigned them to a specific subject area, and grouped similar comments together. Finally, responses were prepared for each comment or group of comments.

The following comment summaries and responses address each of the comments received that were not originally included in the final EIS. However, none of the comments addressed in this Supplement warranted changes to the final EIS, as explained in the comment responses. Many of the comments were similar to those received and previously responded to in Appendix D of the final EIS. Where relevant, and to maintain consistency, the responses from the final EIS are quoted in this Supplement. The reader should note that indented text is quoted from the final EIS, and sections referenced within the quotes refer to sections within the EIS, not this Supplement.

Comment letters addressed in this Supplement are listed in Table S–1.

Table S–1 Individuals Whose Comments are Addressed in this Supplement

Commenter	Affiliation	Comment Source and ADAMS Accession #	Correspondence ID
Rod McCullum	Nuclear Energy Institute	Email ML22213A204	429
Don Hancock	Southwest Research and Information Center	Email ML22213A195	430

S.1 Comments Concerning NEPA Process

S.1.1 NEPA Process: General—Use of NMED Expertise

A commenter stated that while the NRC recognized NMED expertise, the EIS does not demonstrate that the NRC fulfilled its commitments to NMED regarding incorporating their surface and groundwater expertise.

Response: The NRC staff consulted with NMED during the development of the EIS and, in particular, provided relevant sections of the EIS related to their areas of expertise (surface water and groundwater) for its review and comment. As described in EIS Section 1.7.3.2, once the draft EIS was published for comment, NMED also provided comments on the draft EIS that NRC staff addressed in the final EIS, specifically recognizing comments from NMED. Those comment responses can be found in the final EIS Appendix D, Sections D.2.11 and D.2.12. The final EIS also discusses information provided by NMED that is within the areas of its special expertise. The NRC staff fulfilled its commitments to consider NMED input, and therefore no changes were warranted to the final EIS as a result of this comment.

Comment: (430-23)

S.2 Comments Concerning NEPA Process: Public Participation

S.2.1 NEPA Process: Public Participation—Comments in Support of Public Meetings

A commenter expressed support for the NRC's public meeting process for development of the EIS, including use of webinars during pandemic conditions, which the commenter stated resulted in ample opportunity for public participation.

Response: The topic presented in this comment was addressed in the final EIS in Appendix D, and that response is repeated here for completeness. No changes were warranted to the final EIS as a result of this comment.

> *"D.2.2.2 NEPA Process: Public Participation—Comments in Support of Webinars*
>
> *Response: The NRC strives to conduct its public outreach activities in an open, transparent, and effective way. The NRC typically holds in-person public meetings during draft EIS public comment periods, but such meetings were precluded by the public health emergency, as noted by the commenters and discussed extensively in this appendix in Section 2.2.7. The NRC staff agrees that the webinar-based public meetings, together with other means of submitting comments, provided an effective opportunity for gathering public input on the draft EIS, as required by NEPA. As part of their statements, one commenter was critical of the scope and nature of the comments from other members of the public; this aspect of the comments is addressed in Section 2.2.4 of this appendix. No changes were made to the EIS as a result of these comments."*

Comment: (429-7)

S.2.2 NEPA Process: Public Participation—Consent for Project

One commenter expressed concern that New Mexico does not consent to the proposed project, and the EIS does not address consent despite the comments expressing opposition that were received and responded to in the NRC's Scoping Summary Report (NRC, 2019a).

Response: The topic of consent was addressed in the final EIS in Appendix D, and that response is repeated here for completeness. No changes were warranted to the final EIS as a result of this comment.

> *"D.2.2.6 NEPA Process: Public Participation—Consent Based Siting*
>
> *Response: The NRC's regulatory framework for licensing a CISF is based on ensuring that a proposed project meets the applicable safety regulations and that the requirements of NEPA are met. This regulatory framework includes numerous public participation and consultation interactions with relevant government officials and agencies, but the NRC's regulatory authority is not based on consent-based licensing. Therefore, consent-based siting and requests for such are beyond the scope of the EIS. The Atomic Energy Act of 1954 requires that the NRC establish criteria for the licensing of nuclear facilities, including spent nuclear material storage facilities. Absent Congressional direction to do so, the NRC may not deny a license application for failure to conduct consent-based siting. Although the NRC licensing process offers multiple opportunities for public involvement, including an opportunity for public comment during the EIS scoping process and on the draft EIS, for the reasons stated above, this process does not include provisions for local consent prior to the NRC granting a license.*
>
> *The Blue Ribbon Commission report, published in 2012 through the Secretary of Energy, recommended a consent-based siting approach for new facilities for the management and disposal of nuclear waste. The U.S. Department of Energy (DOE) was tasked to implement the recommendations in the report. However, because the NRC would license the proposed CISF, and the NRC process for licensing is not consent-based, neither the assertions of consent by Holtec in its license application nor the statements of consent or non-consent in the comments are evaluated further in the EIS.*
>
> *The NRC staff reviewed and carefully considered the comments received during scoping and on the draft EIS from all stakeholders, including government agencies and representatives and members of the public. Comments were evaluated based on their technical, legal, or regulatory merit and, where applicable, insights or information from the comments were included in the development of the draft EIS and final EIS. While comments stating support or opposition to the project are useful for the NRC staff to understand stakeholders' views, the NRC licensing decision is based on whether or not the facility meets applicable regulatory criteria, together with the associated adjudicatory process.*
>
> *Comments related to consent-based siting at other sites are beyond the scope of this EIS. No changes were made to the EIS as a result of these comments."*

Comment: (430-21)

S.2.3 NEPA Process: Public Participation—Inadequate Public Comment Process

One commenter stated that the NRC did not sufficiently extend the public comment period for the draft EIS, and that the NRC did not uphold its promise to hold in-person public meetings in New Mexico, but instead held webinars, rendering the public comment process inadequate. The commenter also stated that, in addition to not holding in-person public meetings, the NRC seemed to be rushing to issue a license to Holtec, thus indicating that NRC was not interested in public input.

Response: The topics presented in this comment are similar to those addressed in Appendix D of the final EIS, and those responses are repeated here for completeness. No changes to the final EIS were warranted as a result of this comment.

> *"D.2.2.7 NEPA Process: Public Participation—In-Person Meetings Needed*
>
> *Response: The NRC's typical practice for draft EIS public comment periods is to hold one or more public meetings at or near the location of a proposed project. This allows an opportunity for stakeholders to provide oral comments in person to the NRC staff. During the scoping phase of this project, and while NRC staff were developing the draft EIS, the NRC staff planned to hold in-person meetings in the vicinity of the proposed CISF as was done for scoping meetings. However, as a result of the pandemic and associated public health emergency, and consistent with the practice of several other Federal agencies, the NRC modified its public interactions from in-person meetings to virtual meetings, such as webinars. This change allowed opportunities for oral comments while maintaining safety protocols for NRC staff and stakeholders. While the NRC staff regrets that meetings were not able to be held in person, the staff disagrees that the public participation process requires in-person meetings by law and that not holding meetings in person denies the public ample opportunity to participate. Importantly, comments received at webinar public meetings are handled and considered in the same way as those received during public comment meetings: a transcript is taken of the meeting and made available to the public, and the comments are grouped with comments received through other means (e.g., mail and email) for NRC staff response. Public meetings held through webinar also allow for national participation.*
>
> *CEQ regulations at 40 CFR 1503.1(c) require that agencies make provisions for electronic submittals of public comments. CEQ regulations at 40 CFR 1506.6(c) require that agencies "hold or sponsor public hearings, public meetings, or other opportunities for public involvement whenever appropriate or in accordance with statutory requirements applicable to the agency. Agencies may conduct public hearings and public meetings by means of electronic communication except where another format is required by law." The CEQ guidance for citizen participation in NEPA processes (CEQ, 2007) notes that public meetings may be held in a variety of formats, including virtually. The NRC staff has allowed for public participation in a manner consistent with the CEQ guidance.*
>
> *The NRC staff strives to conduct regulatory activities in an open and transparent manner and to make information as accessible as possible to optimize public participation. For this draft EIS public comment process, the NRC staff released FRNs and press*

releases, placed newspaper ads, posted information to the NRC website, and sent copies of materials to libraries closest to the proposed CISF site and mailed hard copies of the draft EIS to those that requested it. As discussed more extensively in other comment responses in this section (see responses regarding requests for extensions to the comment period and requests for additional public meetings), the NRC staff held six public webinars accessible from any location and extended the public comment period to 180 days, during which comments could be sent by email, mail, or through regulations.gov. Based on all these factors, the NRC staff believe that the change in public meetings from in-person to virtual format was appropriate and protective of public health and safety, and that this EIS public comment process was adequately inclusive and in compliance with NRC's NEPA-implementing policies.

No changes were made to the EIS as a result of these comments."

"D.2.2.10 NEPA Process: Public Participation—NRC Responsiveness to Comments and Concerns About Predetermined Decisions

Response: The purpose of the public comment process is for the NRC staff to receive information and feedback on the draft EIS from various stakeholders, including members of the public and other government representatives and agencies. The NRC staff actively elicits this feedback so that updates, corrections, and clarifications can be made in the final EIS. Whether comments are received at the public meetings, through email, regulations.gov, or U.S. mail, each submittal is tracked through the NRC's ADAMS system. All comments are carefully considered by the NRC staff. Importantly, comments received at webinar public meetings are handled and considered in the same way as those received during public comment meetings: a transcript is taken of the meeting and made available to the public, and the comments are grouped with comments received through other means (e.g., mail and email) for NRC staff response. Commenters can view the tracking tables in Table D–1 of this appendix.

Completion of the draft or final EIS does not represent completion of a licensing process, and the EIS is considered in combination with the results of the safety review (the SER) and the outcome of any adjudicatory hearings when a licensing decision is made. Based on the NRC staff's evaluation of the license application materials, supporting documentation, independent assessments, and input received during the scoping process, the NRC staff issued a draft EIS with its preliminary conclusions regarding the potential environmental impacts of the proposed project. Stakeholders (including members of the public) were afforded this public comment opportunity to provide feedback on the draft EIS prior to publication of a final EIS.

Concerns about decisions made by the ASLB relate to the conduct of the adjudicatory process, which is separate from the process for producing the EIS, and, therefore, those issues are not within the scope of the EIS.

No changes were made to the EIS as a result of these comments."

Comment: (430-1)

S.3 Comments Concerning the Purpose and Need

S.3.1 Purpose and Need—BLM Purpose and Need

A commenter stated that the EIS does not adequately address the purpose and need for the Bureau of Land Management (BLM), stating that the timeframe for an approved right-of-way (ROW) for a rail corridor is inappropriately timed and does not include an express provision for the rail spur to transfer SNF from the proposed CISF to a permanent repository. The commenter also expressed that, for BLM's purposes, the EIS should have included a more detailed assessment of the environmental impacts on other uses of the land, that the New Mexico State Land Office should have been consulted, and comments of the State Land Commissioner should have been considered. Based on these concerns, the commenter stated that the public comment process was inadequate, and that BLM should engage in additional public comment before issuing approval of any ROW. As part of these comments, the commenter also stated that the Holtec CISF is likely to operate in perpetuity.

Response: The BLM was a cooperating agency for the development of the EIS and provided feedback to NRC on all aspects of the proposed project related to BLM matters—in particular, on the rail spur where ROW would have to be obtained. The BLM purpose and need is to provide direction for managing public lands the BLM administers in accordance with its mandate under the Federal Land Policy and Management Act of 1976. The proposed rail spur is needed to efficiently transfer SNF from existing rail lines to the proposed CISF. The same rail infrastructure would be used for transporting SNF to the site for storage and away from the site during defueling (see sections throughout the EIS related to “rail spur.”) Therefore, the timeframe considered for the ROW is appropriate. The BLM will use the impacts associated with the 15.9 hectares [39.4 acres] associated with the rail spur described in the final EIS to inform its decision to either approve Holtec’s Plan of Operations, subject to mitigation included in the Holtec license application and this EIS or deny approval of the Plan of Operations if BLM finds that Holtec’s proposal would result in unnecessary or undue degradation of public lands. Holtec is expected to submit its plan of operation prior to construction and operation of the proposed project.

Regarding consultation with the State Land Office, the NRC reviewed and acknowledged the referenced letter from the State Land Commissioner (ML19183A429) (NRC, 2019c), and issues such as land use and ownership–including for activities such as mineral extraction, grazing, hunting, and recreation noted by the commenter–are discussed in EIS Sections 3.2, 4.2, and 5.2, as well as in comment responses on related topics in the final EIS in Appendix D, and those responses are repeated here for completeness.

The commenter's related concern regarding the potential for the Holtec CISF to operate indefinitely is addressed in Section S.4.2 of this Supplement. Concerns about the adequacy of the public comment process are addressed in Section S.2.3 of this Supplement.

Because the EIS was already updated with relevant land ownership information (as discussed in the comment responses repeated below) and related comments were already addressed in Appendix D of the final EIS, no changes were warranted to the final EIS as a result of these comments.

"D.2.8.3 Land Use—Drill Islands

Response: As described in EIS Section 4.2.1.1, Order 3324 "Oil, Gas, and Potash Leasing and Development Within Designated Potash Area of Eddy and Lea Counties, NM," issued by the U.S. Secretary of the Interior (77 FR 71814), provides procedures and guidelines for orderly co-development of oil and gas and potash resources within the Designated Potash Area (DPA) in southeastern New Mexico (which includes the proposed CISF project area). Under this order, the oil and gas industry use drilling islands that BLM established, from which all new drilling of vertical, directional, and horizontal wells that penetrate potash formations are allowed, to manage the impact on potash resources. Order 3324 only applies to oil and gas exploration and development activities on Federally owned mineral estate. As described in EIS Section 4.2.1.1, mineral estate owned by the State of New Mexico (which includes mineral estate within and adjacent to the proposed CISF project) is subject to rules and regulations promulgated in Order R-111 by the New Mexico Oil Conservation Commission, which governs oil and gas drilling and plugging activities within the DPA. Because oil and gas drilling on Federal lands are already limited to drill islands under Order 3324, construction and operation of the proposed CISF project would not impact oil and gas exploration and development activities on Federally owned land adjacent to and surrounding the proposed site. As described in EIS Section 4.2.1.1, the Belco Tetris Shallow and Belco Deep drill islands are located approximately 0.4 km [0.25 mi] and 0.8 km [0.5 mi] west of the proposed project area, respectively, and the Anise Tetris drill island is south of the proposed project area. The NRC staff revised text in EIS Section 4.2.1.1 to clarify that drill islands would be used for any future drilling on Federally owned land adjacent to and surrounding the proposed project area. Additional information responding to comments concerning oil and gas exploration and development on Federal and State owned and leased mineral estate can be found in Section 2.8.5 of this appendix [Land Use—Oil and Gas Leasing]. As part of its safety review conducted in parallel to this EIS, the NRC staff evaluates the risks of oil and gas exploration and production activities, including fracking, on the integrity and stability of the proposed CISF. Findings of the safety evaluation are documented in the NRC SER. The NRC would only grant a license for the proposed CISF if it finds that there is reasonable assurance of adequate protection of public health and safety.

No other changes were made to the EIS as a result of these comments."

"D.2.8.4 Land Use—Mineral Extraction Activities

Response: The NRC staff does not anticipate that construction, operation, and decommissioning of the proposed CISF project would significantly interfere with existing or future exploration or development of oil and gas or potash resources within or surrounding the proposed project area. As described in EIS Section 4.2.1.1, active and abandoned oil and gas wells within the proposed project area would not be disturbed during construction, operation, and decommissioning activities. In addition, existing oil and gas and potash leases within and adjacent to the proposed project area would remain in effect and oil and gas reserves will remain available for extraction either by horizontal or vertical drilling. Additional information on NRC responses to comments concerning oil and gas and potash leasing can be found in this appendix in Section 2.8.5 [Land Use—Oil and Gas Leasing] and Section 2.8.6 [Land Use—Potash Leasing].

Regarding oil and gas drilling requirements and safety precautions, the NMOCD is the primary regulator of oil and gas development and production in New Mexico. The NMOCD would permit any new wells on State-owned mineral estate within or surrounding the proposed project area and would enforce the State of New Mexico's oil and gas laws, orders, and rules to ensure oil and gas drilling and development and eventual plugging and abandonment is conducted in a way that protects human health and the environment (New Mexico Administrative Code, Title 19, "Natural Resources and Wildlife," Chapter 15, "Oil and Gas"). The BLM would be the agency to review and approve any new wells on Federally owned mineral estate surrounding the proposed project area. Regulations that govern oil and gas drilling, development, and reclamation on Federally owned mineral estate can be found under Title 43, Part 3160 of the Code of Federal Regulations (43 CFR 3160, "Onshore Oil and Gas Operations"). The BLM would enforce these regulations to ensure oil and gas drilling and well plugging and abandonment are conducted in a way that protects human health and the environment. Regarding the cumulative impacts from reasonably foreseeable future oil and gas exploration and development, EIS Section 5.2 describes and evaluates the potential cumulative impacts from the proposed CISF project on oil and gas development when added to past, present, and reasonably foreseeable future oil and gas exploration and development activities. Regarding shallower oil and gas development using advancements in technology, there is no information or evidence to support the existence of shallow oil and gas deposits within or in the vicinity of the proposed project area. As described in EIS Section 3.2.4, all oil and gas production horizons in Eddy and Lea Counties, New Mexico, are older (and therefore deeper) than the Salado Formation, which occurs at depths of 549 to 914 m [1,800 to 3,000 ft] below ground surface in the area of the proposed CISF. As further described in EIS Section 3.2.4, the shallowest identified oil and gas exploration target within and surrounding the proposed CISF project area occurs at a depth of approximately 727 m [2,385 ft]. Because of the extensive oil and gas exploration and development that has occurred in the area of the proposed CISF, it is highly unlikely that recoverable oil and gas deposits are yet to be discovered and developed in formations above the Salado Formation, such as in the Rustler Formation and Dockum Group.

Regarding the establishment of a safe exclusion zone as a mitigation measure in which no potash mining and oil and gas exploration and development is permissible, neither the NRC nor Holtec have the authority to restrict potash mining or oil and gas exploration and development. As part of its safety review conducted in parallel to this EIS, the NRC staff evaluates the potential for future oil and gas drilling and potash mining within and surrounding the proposed project area to impact the integrity and stability of the proposed CISF. Findings of the safety evaluation are documented in the NRC SER. The NRC would only grant a license for the proposed CISF if it finds that there is reasonable assurance of adequate protection of public health and safety.

The NRC staff is aware that the IAEA published a guidebook on the selection of away-from-reactor facilities for SNF (IAEA, 2007). In this guidebook, the IAEA advises away-from-reactor storage implementing organizations to avoid land with exploitable mineral and energy resources, in addition to land adjacent to airports, toxic chemical facilities, facilities manufacturing or using explosives, and refineries. The NRC staff discusses the site-selection process and selection criteria for the proposed Holtec CISF in EIS Section 2.3.3. As part of the site-selection process, oil and gas development was

considered along with other site-specific factors including site ownership, depth to groundwater, faults, seismicity, karst, and threatened and endangered species.

No changes were made to the EIS as a result of these comments."

Comments: (430-14) (430-15) (430-16) (430-20) (430-33)

S.3.2 Purpose and Need—Adequacy of Purpose and Need Statement

Two commenters provided feedback regarding the adequacy of the purpose and need statement in the EIS. One commenter said that the purpose and need statement was straightforward. Another commenter stated that the EIS was legally and technically inadequate because it does not correctly state the purpose and need, and that the preferred alternative is contrary to existing Federal law. The same commenter stated that the purpose and need is not being met by Holtec's proposed site because other storage sites exist that are already filling the need, and that Holtec's preferred option is to have a Federally funded private storage facility. Based on the commenter's concerns regarding the purpose and need statement, they asserted that the draft EIS should be reissued for comment. The commenter also stated that their scoping comments were not responded to in the NRC's Scoping Summary Report.

Response: Regarding the commenter's concern about scoping comments, the referenced scoping comments were received and responded to in the Scoping Summary Report (NRC, 2019a). As noted in Table C of that report, the commenter's submittals can be traced throughout the report as ID numbers 28-2, 31-12, and 1 (two transcript comments and a regulations.gov submittal, respectively.) The topics of purpose and need, alternatives, and legal framework were addressed in several sections of that report.

The remainder of the topics presented in these comments were addressed in Appendix D of the final EIS, and those responses are repeated here for completeness. Because these issues have already been addressed, the NRC does not agree that the draft EIS should be reissued for comment. No changes to the final EIS were warranted as a result of these comments.

"D.2.5.1 Purpose and Need—Defining the Purpose and Need

Response: The proposed Federal action and the purpose and need for the proposed Federal action define the range of reasonable alternatives. The proposed action is the issuance, under the provisions of 10 CFR Part 72, of an NRC license authorizing the construction and operation of the proposed Holtec CISF in southeast New Mexico. For the proposed action, the purpose of the proposed Holtec CISF is to provide an option for storing SNF from nuclear power reactors before a permanent repository is available. The need is to provide away-from-reactor SNF storage capacity that would allow SNF to be transferred from existing reactor sites and stored for the 40-year license term before a permanent repository is available. Additional away-from-reactor storage capacity provides the option for away-from-reactor storage so that stored SNF at decommissioned reactor sites may be removed so the land at these sites is available for other uses. Therefore, considering the proposed action and purpose and need, the NRC staff determined a reasonable alternative to analyze would be a No-Action alternative in which the NRC would not approve the Holtec license application. The No-Action alternative would result in Holtec not constructing or operating the proposed CISF. In the absence of a CISF, the NRC staff assumes that SNF would remain on site in existing

wet and dry storage facilities and be stored in accordance with NRC regulations and be subject to NRC oversight and inspection. In accordance with current U.S. policy, the NRC staff also assumes that the SNF would be transported to a permanent geologic repository, when such a facility becomes available. As further detailed in EIS Section 2.3, other alternatives considered at the proposed CISF project but eliminated from detailed analysis include storage at a government-owned CISF, alternative design and storage technologies, an alternative location, and an alternative facility layout. These alternatives were eliminated from detailed study because they either would not meet the purpose and need of the proposed project or would cause greater environmental impacts than the proposed action.

As previously stated, the proposed action is to construct and operate a CISF for SNF, providing an option for storage of the SNF before a repository is available. Therefore, the purpose and need statement should not assume the proposed CISF would be a permanent repository. The proposed CISF would be licensed by the NRC to operate for a period of 40 years. Holtec has indicated that it may seek to renew the license for two additional renewal periods of up to 40 years each for a total of up to 120 years. By the end of the license term (i.e., either 40 years or a maximum of 120 years) of the proposed CISF, the NRC expects that the SNF would have been shipped to a permanent repository. This expectation of repository availability is consistent with Appendix B of NUREG–2157, the Continued Storage GEIS (NRC, 2014a).

Regarding whether reactor sites are advocating for or against the construction and operation of a CISF, the NRC staff concluded that absent findings in its safety review or NEPA analysis that the proposed facility does not meet regulatory requirements, the NRC has no role in the planning decisions of private entities.

No changes were made to the EIS as a result of these comments."

"D.2.6.2 Assumptions—Legal Framework of the Proposed CISF

Response: The NRC has previously licensed a consolidated spent fuel storage installation, and NRC regulations continue to allow for licensing private away-from-reactor interim spent fuel storage installations under 10 CFR Part 72. The proposed CISF, if licensed, would be subject to the duration requirements for licenses and, if sought and granted, renewed licenses in Part 72. The availability of interim storage would not lessen the need for a permanent repository because the national policy for disposition of SNF remains disposal in a permanent geologic repository. The NRC's determinations regarding feasibility of a geologic repository are discussed in Appendix B of the Continued Storage GEIS (NUREG–2157). The NRC has recognized and acknowledges the political uncertainties in siting and licensing a permanent geologic repository and has also addressed this in Appendix B of the GEIS. Issues relating to ownership (i.e., title) of spent fuel are, generally, outside the scope of this EIS because the environmental impacts of the proposed action would remain at the same level of significance regardless of ownership. The license, if granted, would not authorize or effect any unlawful transfer of title from DOE; the NWPA does not prohibit a power plant licensee from transferring spent fuel to a private entity, like Holtec. Regarding comments on the legality of privatized transport of SNF, the NRC allows licensed private transportation of spent fuel. For more information on the NRC's regulation of spent fuel transportation, see https://www.nrc.gov/waste/spent-fuel-transp.html. Issues related to

GTCC waste regulation (e.g., policy decisions for GTCC storage and disposal) are outside the scope of this EIS. The storage of GTCC at the proposed CISF is part of the proposed action and is included as part of the general term "SNF" (EIS Section 1.1) as analyzed in the EIS. Therefore, each resource area's impact determinations for the storage of SNF includes the portion of stored waste that is GTCC. Separate from this EIS process, the NRC has developed a draft regulatory basis for GTCC and transuranic waste disposal (ADAMS Accession No. ML19059A403[1]). That regulatory process is ongoing and therefore detailed review of GTCC disposal is not feasible at this time. Regarding the statement that the NRC violated the APA, the commenters do not specifically address what they believe constitutes a violation. However, the NRC staff is working to develop a sound record to support an eventual licensing decision on the proposed project. Moreover, the NRC staff has complied with the noticing requirements and public participation process of the APA, and these are described in Section 2.2, [Comments Concerning Public Participation], of this appendix. For information on the site-selection process, see EIS Section 2.3.3, and for details on the cost-benefit analysis see EIS Chapter 8, and Section 2.20 of this appendix.

No changes were made to the EIS as a result of these comments."

Comments: (429-2) (430-2) (430-3) (430-4) (430-5)

S.4 Comments Concerning Assumptions

S.4.1 Assumptions—Capacity of Yucca Mountain

One commenter stated that the EIS should have discussed the legal capacity of Yucca Mountain; specifically, that its legal capacity to dispose SNF is less than the stated capacity of the proposed Holtec CISF, and this means that the Holtec site would have to continue to store SNF in perpetuity.

Response: The topics of capacity of Yucca Mountain (as well as other topics related to the licensing of Yucca Mountain) and the possibility of indefinite storage were addressed in Appendix D of the final EIS, and those responses are repeated here for completeness. The added assumption that the difference in capacities between the proposed project and Yucca Mountain means that some material would be abandoned at the project site is not correct. If the license term is ending and no renewal has been granted, NRC regulations require that the facility is decommissioned, and all materials removed.

Because these topics were already addressed in the EIS, no changes were warranted to the final EIS as a result of this comment.

"D.2.6.5 Assumptions—Availability of a Repository

Response: *The national policy for disposition of SNF remains disposal in a permanent geologic repository. This concept, and NRC's determinations regarding feasibility of a geologic repository, are discussed in Appendix B of the Continued Storage GEIS*

[1] ML19059A403 can be found as NRC, 2019b in the references section of this Supplement.

(NUREG–2157[2]). Furthermore, the Nuclear Waste Policy Act, as amended, designates Yucca Mountain as the location for the DOE to develop a geologic repository. The NRC recognizes and acknowledges the political uncertainty and difficulties in siting and licensing a geologic repository and has also addressed this in Appendix B of the Continued Storage GEIS. The purpose and need for the proposed action are to provide a temporary storage solution before a repository becomes available. Additional information on the timeframe of the analysis (including de facto disposal) and the proposed action can be found in Sections 2.6.4, and 2.4 of this appendix. Detailed comments about the proposed Yucca Mountain geologic repository are beyond the scope of this EIS and are addressed in Section 2.37.14 of this appendix.

No changes were made to the EIS as a result of these comments."

"D.2.4.2 Proposed Action—De Facto Disposal at the Proposed CISF

Response: *The proposed action is to construct and operate a CISF for SNF, providing an option for storage of the SNF before a repository is available. The proposed CISF, if licensed, would be subject to the duration requirements for licenses and, if sought and granted, renewed licenses in Part 72. The availability of interim storage would not lessen the need for a permanent repository, because the policy for disposition of SNF remains disposal in a permanent geologic repository. The EIS evaluates the impacts of the proposed action for the license term of the proposed CISF, which is 40 years. The applicant did not design or propose the CISF to become a permanent repository (which would be subject to licensing requirements under 10 CFR Part 63 rather than Part 72), and should the NRC grant the license, it would not be approving the permanent storage of SNF at the proposed facility. If the initial license is approved, the licensee would have the option to apply for a 40-year license renewal under 10 CFR 72.42. However, the environmental analysis assumes that SNF would be transported away from the CISF and that decommissioning of the proposed CISF would occur prior to license termination at the end of the initial 40-year license period. In accordance with 10 CFR §§ 51.23(b), 51.80(b)(1), and 51.97(a), with respect to analysis of potential environmental impacts of storage beyond the license term of the facility, the impact determinations in the Continued Storage Generic Environmental Impact Statement (Continued Storage GEIS), NUREG–2157, shall be deemed incorporated into the EIS for the proposed CISF. As explained in the Continued Storage GEIS, consistent with current national policy, disposal in a permanent repository is feasible (see Appendix B of the GEIS). Therefore, evaluation of impacts of SNF disposal or of indefinite storage at the proposed CISF are outside the scope of this EIS. Additional information can be found in this appendix regarding the safety of canisters and casks in Section 2.26, transportation of SNF in Section 2.9, and Yucca Mountain in Sections 2.6.5 and 2.37.14.*

No changes were made to the EIS in response to these comments."

[2] In the published final EIS, NUREG-2237, this citation contained a typographical error of "NUREG-2153." As referenced throughout the rest of the document and in the references section, the correct designation for the GEIS for Continued Storage is NUREG-2157. The correction has been made here in this quote for clarity.

"D.2.6.2 Assumptions—Legal Framework of the Proposed CISF

Response: *The NRC has previously licensed a consolidated spent fuel storage installation, and NRC regulations continue to allow for licensing private away-from-reactor interim spent fuel storage installations under 10 CFR Part 72. The proposed CISF, if licensed, would be subject to the duration requirements for licenses and, if sought and granted, renewed licenses in Part 72. The availability of interim storage would not lessen the need for a permanent repository because the national policy for disposition of SNF remains disposal in a permanent geologic repository. The NRC's determinations regarding feasibility of a geologic repository are discussed in Appendix B of the Continued Storage GEIS (NUREG–2157). The NRC has recognized and acknowledges the political uncertainties in siting and licensing a permanent geologic repository and has also addressed this in Appendix B of the GEIS. Issues relating to ownership (i.e., title) of spent fuel are, generally, outside the scope of this EIS because the environmental impacts of the proposed action would remain at the same level of significance regardless of ownership. The license, if granted, would not authorize or effect any unlawful transfer of title from DOE; the NWPA does not prohibit a power plant licensee from transferring spent fuel to a private entity, like Holtec. Regarding comments on the legality of privatized transport of SNF, the NRC allows licensed private transportation of spent fuel. For more information on the NRC's regulation of spent fuel transportation, see https://www.nrc.gov/waste/spent-fuel-transp.html. Issues related to GTCC waste regulation (e.g., policy decisions for GTCC storage and disposal) are outside the scope of this EIS. The storage of GTCC at the proposed CISF is part of the proposed action and is included as part of the general term "SNF" (EIS Section 1.1) as analyzed in the EIS. Therefore, each resource area's impact determinations for the storage of SNF includes the portion of stored waste that is GTCC. Separate from this EIS process, the NRC has developed a draft regulatory basis for GTCC and transuranic waste disposal (ADAMS Accession No. ML19059A403[3]). That regulatory process is ongoing and therefore detailed review of GTCC disposal is not feasible at this time. Regarding the statement that the NRC violated the APA, the commenters do not specifically address what they believe constitutes a violation. However, the NRC staff is working to develop a sound record to support an eventual licensing decision on the proposed project. Moreover, the NRC staff has complied with the noticing requirements and public participation process of the APA, and these are described in Section 2.2, [Comments Concerning Public Participation], of this appendix. For information on the site-selection process, see EIS Section 2.3.3, and for details on the cost-benefit analysis see EIS Chapter 8, and Section 2.20 of this appendix.*

No changes were made to the EIS as a result of these comments."

"D.2.37.14 Out of Scope—Comments Regarding Yucca Mountain

Response: *As described in the EIS, the purpose and need for the proposed action is to provide a temporary storage solution before a repository becomes available. A repository would be a separately licensed facility that would undergo a licensing review by the NRC; therefore, comments concerning the licensing of the Yucca Mountain*

[3] ML19059A403 can be found as NRC, 2019b in the references section of this Supplement

repository are beyond the scope of the EIS. The completion of Yucca Mountain licensing activities is subject to Congressional appropriations and other actions external to the NRC.

The NRC is aware that disputes related to past treaties and laws exist between Indian Tribes and the U.S. Government with respect to the Yucca Mountain project. In its role as a regulatory agency, the NRC lacks the authority to resolve these issues. Disposal of SNF and high-level radioactive waste at the Yucca Mountain site in Nevada remains the national policy in the NWPA, as amended. Regardless, the proposed action is for an interim storage facility for a license period of 40 years.

Because these comments are beyond the scope of the environmental review, no changes were made to the EIS."

Comment: (430-13)

S.4.2 Assumptions—Timeframe of the Analysis

One commenter stated that the period of analysis, 40 years, does not have a technical or legal basis and that the timeframe specified by Holtec is 120 years. The commenter asserted that the EIS should have analyzed a longer period of time (120 years) because (i) there is no demonstration that all of the proposed SNF storage could be moved to the site and then removed to a disposal facility within 40 years, (ii) that Yucca Mountain would be able to accept the SNF for disposal, and (iii) climate change effects and other environmental impacts may be different over a 120-year timeframe than a 40-year timeframe. The commenter stated that analyzing only 40 years in the EIS amounts to segmentation of the analysis. The commenter also stated that their comments on this topic were not addressed in scoping.

Response: Regarding the commenter's concern about scoping comments, comments about timeframe of analysis were received and responded to in the Scoping Summary Report (NRC, 2019a), and as noted in Table C of that report, this commenter's submittals can be traced throughout the report as ID numbers 28-2, 31-12, and 1 (two transcript comments and a regulations.gov submittal, respectively.) Concerns about the EIS timeframe of analysis were also addressed in the final EIS in Appendix D, and that response is repeated here for completeness. Because these topics were addressed in the EIS, no changes were warranted to the final EIS as a result of these comments.

"D.2.6.4 Assumptions—Timeframe of the Proposed Action

Response: The proposed action being evaluated in the EIS is the issuance, under the provisions of 10 CFR Part 72, of an NRC license authorizing the construction and operation of the proposed Holtec CISF in southeast New Mexico. The proposed CISF, if approved, would be licensed by the NRC in accordance with regulations authorizing operation under a license for up to 40 years. Holtec has indicated that it may seek to renew the license for two additional renewal periods of 40 years each, for a total of 120 years. Renewal of the license beyond the initial 40-year term would require Holtec to submit a license renewal request, which would be subject to an additional safety and environmental review [EA or EIS] separate from this licensing action. Therefore, the EIS evaluated the initial licensing period of 40 years. By the end of the license term of the proposed CISF (40 years plus subsequent renewals, if approved), the NRC expects that

the SNF would be shipped to a permanent geologic repository. This expectation of repository availability is consistent with NUREG–2157, the Continued Storage GEIS (NRC, 2014a), which concluded that a reasonable period of time for the development of a repository is approximately 25 to 35 years, based on experience in licensing similarly complex facilities in the U.S. and national and international experience with repositories already in progress. Furthermore, the Continued Storage GEIS (NUREG–2157) and associated rule at 10 CFR 51.23 state that EISs such as the EIS for the proposed Holtec CISF are not required to discuss the environmental impacts of spent nuclear fuel storage in an ISFSI for the period following the term of the ISFSI license. The impact determinations in NUREG–2157 regarding continued storage are deemed incorporated into the EISs according to 10 CFR 51.23.

A separate safety review, conducted in parallel with the environmental review, addresses the safety of facility design, SNF receipt, transfer, and storage operations and related activities at the proposed CISF in New Mexico.

No changes were made to the EIS as a result of these comments."

Comments: (430-11) (430-12)

S.5 Comments Concerning Alternatives

S.5.1 Alternatives—Adequacy of Alternatives

One commenter stated that the EIS did not contain an analysis of all reasonable alternatives, and that a legally adequate EIS must do so. The commenter noted that the only alternatives discussion is regarding the proposed action and No-Action alternative, which are the same as those presented by Holtec. The commenter further stated that the Private Fuel Storage (PFS) facility and Interim Storage Partners (ISP) Consolidated Interim Storage Facility (CISF) should have been considered as alternatives. The commenter said that these alternatives were presented during scoping but not adequately considered in the scoping summary report. The commenter said that the EIS should be reissued for comment as a result of these deficiencies.

Response: Regarding the inclusion of commenter's scoping comments, Scoping Summary Report Section B.7.2 (NRC, 2019a) addresses these comments, and the report also notes that the purpose of scoping is to identify alternatives for analysis in the EIS (Section A.4). Alternatives, including those eliminated from consideration, were addressed in EIS Sections 2.2 and 2.3.

The topics presented in this comment regarding the adequacy of alternatives and consideration of PFS, ISP CISF, and other facilities as alternatives were addressed in the final EIS in Appendix D, and that response is repeated here for completeness. Because these comments were already addressed, no changes were warranted to the final EIS as a result of these comments.

"D.2.7.3 Alternatives—Alternative Sites and Methodologies

Response: *The NRC staff's discussion of alternatives in the EIS and a description of alternatives considered but eliminated from detailed analysis can be found in EIS*

Sections 2.2 and 2.3, respectively. The alternatives analysis did not include a review of alternate plans for disposition of the SNF, such as developing a repository because such alternatives do not meet the purpose and need for the proposed action (providing an option to store SNF until a repository is available).

As described in EIS Section 2.3.3, the NRC staff reviewed Holtec's site-selection process and evaluated the sites proposed in its application. To evaluate whether any of the environmental impacts could be avoided or significantly reduced through site selection, the NRC staff independently evaluated the site-selection process to determine if the site Holtec proposed was the environmentally preferable location when compared to other evaluated sites. The NRC staff conducted a sensitivity analysis of the siting process to ensure that the site selection was not sensitive to small changes in the relative weights of objectives or criteria. The NRC staff evaluated the information by equally ranking each of the criteria, segregating certain criteria for specific evaluation, and applying higher weighting to environmental- and safety-related criteria. Based on the results of the NRC staff's site-selection process evaluation and sensitivity analysis, the NRC staff independently verified that Holtec's elimination of other alternative sites from detailed evaluation was reasonable. In addition, the NRC staff did not identify any additional alternative sites that Holtec did not consider in its site-selection process. Inclusion of the No-Action alternative in the EIS addresses a requirement under NEPA, and it serves as a baseline for comparison of environmental impacts of the proposed action. Because the NRC staff determined that the site-selection process was reasonable and did not unreasonably exclude alternative sites, the NRC staff did not identify additional site locations for a detailed analysis, and no supplemental analysis is needed.

The NRC staff performs independent environmental and safety reviews of the project proposed by an applicant. Holtec did not propose a cask storage system similar to systems the commenter suggested that are used in Switzerland. Holtec proposed to use the Holtec International Storage Module Underground MAXimum Capacity (HI-STORM UMAX) technology (certified in NRC Docket Number 72-1040), which is a dry, in-ground storage system that stores a hermetically sealed canister containing SNF in several vertical ventilated modules. Therefore, an evaluation of an alternative storage design is not included in this EIS. EIS Section 2.3.2 includes additional information about alternative system designs and technologies that Holtec considered, but which it decided against after evaluation.

No changes were made to the EIS as a result of these comments."

Comments: (430-6) (430-7) (430-8) (430-10)

S.5.2 Alternatives—Hardened On-Site Storage (HOSS)

One commenter stated that the EIS should have included HOSS as an alternative, and that the EIS improperly excludes it from analysis because of the inadequacy of the purpose and need statement.

Response: The topic of hardened on-site storage (HOSS) as an alternative was addressed in the final EIS in Section 2.3.2.2, as well as in a comment response in the final EIS in Appendix D, which is repeated here for completeness. The commenter's concern about the adequacy of the

purpose and need statement is addressed in Section S.3.2 of this Supplement. Because this topic was already addressed in the EIS, no changes were warranted to the final EIS as a result of this comment.

"D.2.7.2 Alternatives—Hardened Onsite Storage System (HOSS) and Hardened Extended-Life Local Monitored Surface Storage (HELMS)

Response: The NRC's safety and environmental review is limited to evaluating the proposed CISF as described in Holtec's license application, as well as viable alternatives. The staff's assessment of the No-Action alternative evaluates the potential impacts of leaving the SNF at current storage locations as a baseline for comparison against the potential environmental impacts of constructing and operating a proposed CISF. HOSS and HELMS were not analyzed in detail in the EIS because these concepts do not meet the purpose and need of the proposed action. Regarding defining the purpose and need for the proposed action, the purpose is to provide an option for storing SNF from nuclear power reactors for the timeframe prior to a permanent repository becoming available. The need for the proposed action is to provide away-from-reactor SNF storage capacity that would allow SNF to be transferred from existing reactor sites and stored for the 40-year license term before a permanent repository is available. Additional away-from-reactor storage capacity is needed to provide the option for away-from-reactor storage so that stored SNF at decommissioned reactor sites may be removed such that the land at these sites is available for other uses. Thus, new or modified facilities at existing sites do not meet the purpose and need for the proposed action. Furthermore, the scope of this licensing action for the proposed CISF does not include new storage system designs for the storage of spent fuel at existing sites; therefore, assessing the impacts of HOSS and HELMS at other sites is not included in this site-specific licensing process.

Regarding requests for the NRC to consider the safety benefits of HOSS and HELMS fully and compare the safety of these systems to the proposed action (Phase 1), evaluation of new systems or designs is beyond the scope of this EIS. Furthermore, the NRC recently reviewed a request for rulemaking submitted by Raymond Lutz and Citizens Oversight, Inc. (the petitioners), dated January 2, 2018, regarding HELMS (a similar concept to HOSS that also acknowledges the potential need for local off-site storage). The petitioners requested that the NRC amend its regulations regarding SNF storage systems to embrace the Hardened Extended-life Local Monitored Surface Storage (HELMS) approach and identified multiple revisions to accommodate such an approach. The NRC denied the petition because the petitioners did not present information that supports the requested changes to the regulations or that provides substantial increase in the overall protection of occupational or public health and safety (85 FR 3860). The NRC's current regulations and oversight activities continue to provide for the adequate protection of public health and safety and to promote the common defense and security. However, in accordance with its statutory authority to do so, the NRC would evaluate the environmental and safety of implementation of HOSS or HELMS systems at a SNF storage facility, should an application for such be submitted. With respect to the comments about the decision regarding exclusion of HOSS as part of a previous petition to intervene in the proceedings, that decision is part of the adjudicatory process that is a separate component of the NRC licensing decision process, and therefore is beyond the scope of this EIS.

No changes were made to the EIS as a result of these comments. Both HOSS and HELMS remain eliminated from detailed analysis as described in EIS Section 2.3.2.2 and 2.3.2.3, respectively."

Comment: (430-9)

S.6 Comments Concerning Land Use

S.6.1 Land Use—Concerns about Oil and Gas Development

A commenter stated that the EIS does not analyze the impacts of oil and gas drilling within the bounds of or adjacent to the proposed Holtec site, nor does it address impacts from accidents or releases of radioactivity on oil and gas operations.

Response: The topics presented in this comment were considered and addressed in the final EIS, Sections 4.2, 4.15, 5.1.1.1, and 5.2, as well as in comment responses in Appendix D of the final EIS, and those responses are repeated here for completeness. Because these topics were already addressed in the EIS, no changes were warranted to the final EIS as a result of this comment.

"D.2.8.3 Land Use—Drill Islands

Response: As described in EIS Section 4.2.1.1, Order 3324 "Oil, Gas, and Potash Leasing and Development Within Designated Potash Area of Eddy and Lea Counties, NM," issued by the U.S. Secretary of the Interior (77 FR 71814), provides procedures and guidelines for orderly co-development of oil and gas and potash resources within the Designated Potash Area (DPA) in southeastern New Mexico (which includes the proposed CISF project area). Under this order, the oil and gas industry use drilling islands that BLM established, from which all new drilling of vertical, directional, and horizontal wells that penetrate potash formations are allowed, to manage the impact on potash resources. Order 3324 only applies to oil and gas exploration and development activities on Federally owned mineral estate. As described in EIS Section 4.2.1.1, mineral estate owned by the State of New Mexico (which includes mineral estate within and adjacent to the proposed CISF project) is subject to rules and regulations promulgated in Order R-111 by the New Mexico Oil Conservation Commission, which governs oil and gas drilling and plugging activities within the DPA. Because oil and gas drilling on Federal lands are already limited to drill islands under Order 3324, construction and operation of the proposed CISF project would not impact oil and gas exploration and development activities on Federally owned land adjacent to and surrounding the proposed site. As described in EIS Section 4.2.1.1, the Belco Tetris Shallow and Belco Deep drill islands are located approximately 0.4 km [0.25 mi] and 0.8 km [0.5 mi] west of the proposed project area, respectively, and the Anise Tetris drill island is south of the proposed project area. The NRC staff revised text in EIS Section 4.2.1.1 to clarify that drill islands would be used for any future drilling on Federally owned land adjacent to and surrounding the proposed project area. Additional information responding to comments concerning oil and gas exploration and development on Federal and State owned and leased mineral estate can be found in Section 2.8.5 of this appendix [Land Use—Oil and Gas Leasing]. As part of its safety review conducted in parallel to this EIS, the NRC staff evaluates the risks of oil and gas exploration and production activities, including fracking, on the integrity and stability of

the proposed CISF. Findings of the safety evaluation are documented in the NRC SER. The NRC would only grant a license for the proposed CISF if it finds that there is reasonable assurance of adequate protection of public health and safety.

No other changes were made to the EIS as a result of these comments."

"D.2.8.4 Land Use—Mineral Extraction Activities

Response: *The NRC staff does not anticipate that construction, operation, and decommissioning of the proposed CISF project would significantly interfere with existing or future exploration or development of oil and gas or potash resources within or surrounding the proposed project area. As described in EIS Section 4.2.1.1, active and abandoned oil and gas wells within the proposed project area would not be disturbed during construction, operation, and decommissioning activities. In addition, existing oil and gas and potash leases within and adjacent to the proposed project area would remain in effect and oil and gas reserves will remain available for extraction either by horizontal or vertical drilling. Additional information on NRC responses to comments concerning oil and gas and potash leasing can be found in this appendix in Section 2.8.5 [Land Use—Oil and Gas Leasing] and Section 2.8.6 [Land Use—Potash Leasing].*

Regarding oil and gas drilling requirements and safety precautions, the NMOCD is the primary regulator of oil and gas development and production in New Mexico. The NMOCD would permit any new wells on State-owned mineral estate within or surrounding the proposed project area and would enforce the State of New Mexico's oil and gas laws, orders, and rules to ensure oil and gas drilling and development and eventual plugging and abandonment is conducted in a way that protects human health and the environment (New Mexico Administrative Code, Title 19, "Natural Resources and Wildlife," Chapter 15, "Oil and Gas"). The BLM would be the agency to review and approve any new wells on Federally owned mineral estate surrounding the proposed project area. Regulations that govern oil and gas drilling, development, and reclamation on Federally owned mineral estate can be found under Title 43, Part 3160 of the Code of Federal Regulations (43 CFR 3160, "Onshore Oil and Gas Operations"). The BLM would enforce these regulations to ensure oil and gas drilling and well plugging and abandonment are conducted in a way that protects human health and the environment. Regarding the cumulative impacts from reasonably foreseeable future oil and gas exploration and development, EIS Section 5.2 describes and evaluates the potential cumulative impacts from the proposed CISF project on oil and gas development when added to past, present, and reasonably foreseeable future oil and gas exploration and development activities. Regarding shallower oil and gas development using advancements in technology, there is no information or evidence to support the existence of shallow oil and gas deposits within or in the vicinity of the proposed project area. As described in EIS Section 3.2.4, all oil and gas production horizons in Eddy and Lea Counties, New Mexico, are older (and therefore deeper) than the Salado Formation, which occurs at depths of 549 to 914 m [1,800 to 3,000 ft] below ground surface in the area of the proposed CISF. As further described in EIS Section 3.2.4, the shallowest identified oil and gas exploration target within and surrounding the proposed CISF project area occurs at a depth of approximately 727 m [2,385 ft]. Because of the extensive oil and gas exploration and development that has occurred in the area of the proposed CISF, it is highly unlikely that recoverable oil and gas deposits are yet to be

discovered and developed in formations above the Salado Formation, such as in the Rustler Formation and Dockum Group.

Regarding the establishment of a safe exclusion zone as a mitigation measure in which no potash mining and oil and gas exploration and development is permissible, neither the NRC nor Holtec have the authority to restrict potash mining or oil and gas exploration and development. As part of its safety review conducted in parallel to this EIS, the NRC staff evaluates the potential for future oil and gas drilling and potash mining within and surrounding the proposed project area to impact the integrity and stability of the proposed CISF. Findings of the safety evaluation are documented in the NRC SER. The NRC would only grant a license for the proposed CISF if it finds that there is reasonable assurance of adequate protection of public health and safety.

The NRC staff is aware that the IAEA published a guidebook on the selection of away-from-reactor facilities for SNF (IAEA, 2007). In this guidebook, the IAEA advises away-from-reactor storage implementing organizations to avoid land with exploitable mineral and energy resources, in addition to land adjacent to airports, toxic chemical facilities, facilities manufacturing or using explosives, and refineries. The NRC staff discusses the site-selection process and selection criteria for the proposed Holtec CISF in EIS Section 2.3.3. As part of the site-selection process, oil and gas development was considered along with other site-specific factors including site ownership, depth to groundwater, faults, seismicity, karst, and threatened and endangered species.

No changes were made to the EIS as a result of these comments."

Comment: (430-24)

S.7 Comments Concerning Socioeconomics

S.7.1 Socioeconomics—Adequacy of Analysis and Expertise

A commenter raised concerns that the NRC staff did not adequately consider local expertise in their EIS analyses, particularly with regard to socioeconomics. The commenter stated that the governor's office had the requisite expertise to determine that the project would be detrimental, and the NRC analysis was not credible because it disregarded a letter from this office. As part of these comments, the commenter also raised concerns about adequacy of other analyses in the EIS, including surface water, groundwater, and mineral extraction.

Response: The NRC staff addressed comments regarding the adequacy of the socioeconomic analysis and the adequacy of the EIS as a whole–including consideration of appropriate expertise and resources–in the final EIS in Appendix D. Some of those comment responses are repeated here for completeness; additional related comments on the socioeconomic analysis are addressed in the final EIS Appendix D, Section D.2.17. Related concerns regarding appropriate use of NMED expertise in water resources is addressed in Section S.1.1 of this Supplement. The topic of land use (mineral extraction) is addressed as part of the comment response in Section S.3.1 of this Supplement. Because the topics in these comments were already addressed in the EIS, no changes were warranted to the final EIS as a result of these comments.

"D.2.17.3 Socioeconomics—Impact on Other Industries

Response: *The NRC staff recognizes the importance of other industries in the region, particularly agriculture, mineral extraction, oil and gas extraction, and tourism, and the importance that they have on the regional economy. The purpose of the EIS is to evaluate reasonably foreseeable environmental impacts, not speculative events or worst-case scenarios. EIS Section 4.11 provides additional information on the NRC's economic analysis for this project, including financial provisions for potential liability due to accidents. The NRC conducts a concurrent safety review of the application along with the environmental review that will be published in a Final Safety Evaluation Report; the results of the NRC's safety review will address the analysis in Holtec's application that there are no credible accidents that would result in a release of radioactive material into the environment. The EIS socioeconomic and cost-benefit analyses do not estimate the cost for any accidents or assess the economic cost to other resources from a potential accident, and the EIS SNF transportation analysis assumes no releases of radiological material if an accident occurred during transport of the SNF from origin site to the proposed facility.*

Regarding comments about potential impacts to local cattle ranchers, the NRC staff evaluated potential impacts to grazing in EIS Section 4.2.1.1. The proposed project would eliminate grazing on 133.5 ha [330 ac] of land that would result in a loss of 0.01 percent of the land available for grazing in Lea County. The NRC staff concluded that there would be only a minor impact on local livestock production in Lea County because there is abundant open land available for grazing around the storage and operations area and surrounding the proposed project area. Additional information regarding potential impacts on agriculture is provided in Section 2.8.7 of this appendix [Land Use—Potential Impacts on Agriculture].

Regarding the concern that the proposed project would reduce forage for grazing cattle on neighboring public lands through the spread of noxious weeds, the NRC staff evaluated impacts on vegetation from the proposed project that could occur within an approximate 3.2 km [2 mi] radius of the proposed project area in EIS Section 4.6. The NRC staff evaluated potential impacts on vegetation as result of cumulative impacts that could occur within an approximate 8-km [5-mi] radius from the middle of the proposed CISF project area in EIS Section 5.6. The EIS addresses the potential spread of noxious weeds during operations in Section 4.6.1.2. No noxious weeds have been identified at the proposed project area and Holtec stated in its ER that it would control new growth of noxious weeds with appropriate spraying techniques. The NRC staff also recommended in EIS Section 4.6.1.2.1 that Holtec implement additional steps to monitor for and mitigate the potential spread of weeds that may occur along the rail spur. The BLM, not NRC, will provide relevant requirements in a permit to construct the rail spur to mitigate the spread of noxious weeds. Additional information regarding potential impacts on vegetation is provided in Section 2.14.3 of this appendix [Ecology—Impacts on Vegetation].

Regarding the assessment of property values near the proposed CISF and along the transportation routes, the valuation of agricultural products grown in the region, and related impacts on businesses and farmers as a result of these valuations due to the existence of the proposed action (Phase 1), the NRC staff determined that positive or negative impacts on these markets are too speculative to project and evaluate in detail

and are outside the scope of this EIS. Additionally, a detailed analysis of how public perception could potentially influence other industries in the vicinity of the proposed project and along transportation routes is speculative and also outside the scope of this EIS. Similarly, the desire that communities should be compensated for being willing to host a CISF is outside the scope of this EIS and the NRC's regulatory authority.

The effects of the proposed project on land use, including use of public lands and rights-of-way, recreational and tourism sites, wilderness areas, and visual and scenic resources in the area are assessed in EIS Sections 4.2 and 4.10. The future use of land in the area for extractive purposes (i.e., potash and oil and gas) is speculative because assumptions about future uses would be based only on the current ownership of subsurface mineral rights and not actual uses. Therefore, the EIS does not attempt to quantify the potential revenues that could potentially be generated from various combinations of land uses near the proposed CISF. EIS Section 4.2.1 discusses potential impacts to mineral extraction activities in the vicinity of the proposed project, and the NRC staff concludes that the land use impacts from the proposed project would be SMALL. The NRC staff also concludes in EIS Section 5.2 that the proposed CISF would add a SMALL incremental effect to the MODERATE impacts to land use from other past, present, and reasonably foreseeable future actions in a 10-km [6-mi] area around the proposed project. Several responses to comments in this appendix provide additional information on oil and gas leasing: Section 2.8.5 [Land Use—Oil and Gas Leasing], Section 2.8.6 [Land Use—Potash Leasing], and Section 2.8.4 [Land Use—Mineral Extraction Activities].

Regarding jobs and the potential effects that the proposed project could have on the overall local economy in the region, EIS Section 4.11 includes an explanation of development of the socioeconomic ROI (i.e., where the most socioeconomic changes are expected to occur from the proposed CISF) and a discussion of the major industries and employers within the socioeconomic ROI. EIS Section 4.11 also provides an analysis of potential socioeconomic impacts that could occur from the proposed CISF with respect to taxes, employment, housing, and public services. The NRC staff applied the U.S. Department of Commerce BEA, Economic and Statistics Division's economic model called RIMS II to estimate the change in local economy, including jobs, from the proposed project. In EIS Section B.1, the NRC staff explain that the RIMS II estimates account for inter-industry direct and indirect impacts, as well as for induced impacts that are associated with the purchases employees made. EIS Chapter 5 evaluates potential cumulative impacts from a variety of past, present, and reasonably foreseeable future actions that could affect individuals and communities within 80 km [50 mi] of the proposed CISF, including past and future boom and bust cycles in the region from the oil and gas industry. The NRC staff determined that the evaluation of impacts on other industries in the ROI is sufficient. In addition, EIS Chapter 8 includes a cost-benefit analysis, as explained in Section 2.20 [Comments Concerning Cost Considerations] of this appendix. EIS Section 4.15 includes an explanation of credible accidents, as determined by the NRC safety evaluation, and EIS Chapter 5 includes reasonably foreseeable events as part of the cumulative impacts analysis, and further discussion on the accidents analysis is provided in Section 2.25 [Comments Concerning Accidents] of this appendix.

No changes were made to the EIS as a result of these comments."

"D.2.1.3 NEPA Process: General—Adequacy of Information and/or Analyses

Response: *The NRC approach to licensing proposed facilities is rooted in sound scientific principles, analyses, and information and follows a well-established regulatory process to ensure public health and safety. The NRC staff applies a multidisciplinary approach to conduct both safety and environmental reviews of license applications. The NRC staff disagrees that the evaluation in the EIS was incomplete, not factual, inadequate, or lacked research. Applicants submit their documents under oath and affirmation attesting to the accuracy of the contents. In developing this EIS for the proposed CISF, the NRC staff independently reviewed and evaluated the information and analyses provided in the applicant's license application, Environmental Report (ER), and supplemental information. In addition, the NRC staff independently collected and reviewed additional information related to the proposed CISF project and its environs. The NRC staff prepared and submitted requests for additional information (RAIs) to the applicant requesting additional information needed to make environmental impact determinations and safety conclusions for the proposed CISF. The applicant updated and revised the ER and Safety Analysis Report (SAR) to include new information and analyses submitted in response to the NRC staff RAIs. The NRC analyses in the EIS use both applicant and independently sourced information to reach evaluation conclusions. Documents relied upon for the NRC's analysis are publicly available and cited in the EIS. Following the NRC's NEPA-implementing guidance, the NRC staff thoroughly analyzed the resource areas within the scope of the EIS and presented these results in the draft EIS for comment and has now finalized the EIS based on the feedback, as appropriate.*

Regarding the concerns about use of outdated information, the NRC staff considers the type of information that is available and determines whether it is still appropriate for use as is, in lieu of, or in combination with current available information that is more indicative of the effect a proposed facility will have on the environment. For example, if a site's geologic characterization has not changed in many years, older studies may still be applicable and useful for the evaluation process. Commenters did not provide additional sources of information for the NRC staff to consider or evaluate; therefore, no changes were made to the EIS as a result of these comments.

The NRC staff recognizes that NEPA calls for a hard look at the significant environmental impacts associated with a major Federal action. The NRC staff disagrees with the comments that it has failed to take a hard look at environmental impacts of the proposed Holtec CISF. As described above, the NRC staff has performed its review consistent with its regulations and guidance implementing NEPA and other applicable laws.

Finally, for this proposed project, the NRC's environmental review team includes highly qualified professionals with extensive experience working in their respective areas of expertise. As listed in EIS Chapter 10, this group of scientists and engineers includes hydrologists, geologists, ecologists, health physicists, social scientists, nuclear engineers, environmental scientists, and chemical engineers, among other disciplines.

Comments expressing objection to the proposed project are addressed in Section 2.35 of this appendix.

No changes were made to the EIS in response to these comments."

Comments: (430-22) (430-25)

S.8 Comments Concerning Environmental Justice

S.8.1 Environmental Justice—Adequate Consideration of Environmental Justice Comments

A commenter expressed concern that the EIS is not legally or technically adequate concerning environmental justice issues, stating that the EIS ignored many comments related to environmental justice in the area within the radius of influence of the project as well as along transportation corridors. The commenter stated that the EIS does not mention the Mount Taylor Traditional Cultural Properties or potential impacts to that area. The commenter disagreed with transportation routes not being specifically included in the environmental justice analysis. In addition to these concerns, the commenter stated that the NRC staff did not have or use the appropriate expertise for an environmental justice analysis.

Response: The Mount Taylor Traditional Cultural Property is located well outside of the vicinity of the proposed Holtec site and is therefore outside the geographic scope of analysis for environmental justice, historic and cultural resources, or cumulative impacts for the proposed project. The topics raised by the commenter regarding environmental justice considerations for transportation were addressed in a comment response in Appendix D of the final EIS, and that response is repeated here for completeness. Concerns about the adequacy of the analysis and NRC's expertise – including for environmental justice – were also addressed in Appendix D of the final EIS, and that response is also repeated here for completeness. No changes were warranted to the final EIS as a result of these comments.

"D.2.18.2 Environmental Justice—Concerns Along Transportation Corridors

Response: *The NRC staff describes in EIS Sections 3.11.1.3, 4.11, and B.2 the methods and steps that were taken to conduct the environmental justice analysis for this EIS. Responses to comments about other environmental justice concerns are provided in Section 2.18.3 [Environmental Justice—NRC's Environmental Justice Methodology] of this appendix. EIS Section 4.3.1.2.2 includes an analysis of the impacts of transportation and radiological impacts to workers and the public along representative routes (because the actual transportation routes have not yet been selected) from on-site storage facilities to the proposed Holtec CISF, and the NRC staff concluded that no significant impacts are anticipated along transportation routes. With that considered and given that exact transportation routes have not yet been identified, an environmental justice analysis of the potential effects along possible transportation routes associated with this proposed CISF was not included in this EIS. Radiological impacts to the public and workers from spent fuel shipments from a reactor site have previously been evaluated by the NRC (NRC, 2014b, 2001). Previous analyses confirmed that the radiological impacts from spent fuel transportation were low and in compliance with NRC regulations. The NRC staff concluded that the regulations for transportation of radioactive material are adequate to protect the public against unreasonable risk of exposure to radiation from spent fuel packages in transport. Therefore, disproportionately high and adverse impacts on environmental justice populations are not expected. Responses to other comments related to the assessment of*

transportation risks from accidents are addressed in Section 2.9 of this appendix [Comments Concerning Transportation of SNF: Safety/Accidents].

The NRC staff is committed to ensuring an open and transparent process that allows for ample public participation. The NRC staff held public meetings near the site location during scoping, as well as draft EIS webinar meetings that were accessible to participants located throughout the country, including along transportation routes. Spanish language materials regarding the project were made available, and the public meetings were additionally advertised in both English and Spanish. Additional information about the public participation process is provided in EIS Section 1.4.1 and Section 2.2 [Comments Concerning Public Participation] of this appendix.

Responses to comments about consent-based siting are addressed in Section 2.2.6 of this appendix [NEPA Process: Public Participation—Consent Based Siting].

No changes were made to the EIS as a result of these comments."

"D.2.1.3 NEPA Process: General—Adequacy of Information and/or Analyses

Response: *The NRC approach to licensing proposed facilities is rooted in sound scientific principles, analyses, and information and follows a well-established regulatory process to ensure public health and safety. The NRC staff applies a multidisciplinary approach to conduct both safety and environmental reviews of license applications. The NRC staff disagrees that the evaluation in the EIS was incomplete, not factual, inadequate, or lacked research. Applicants submit their documents under oath and affirmation attesting to the accuracy of the contents. In developing this EIS for the proposed CISF, the NRC staff independently reviewed and evaluated the information and analyses provided in the applicant's license application, Environmental Report (ER), and supplemental information. In addition, the NRC staff independently collected and reviewed additional information related to the proposed CISF project and its environs. The NRC staff prepared and submitted requests for additional information (RAIs) to the applicant requesting additional information needed to make environmental impact determinations and safety conclusions for the proposed CISF. The applicant updated and revised the ER and Safety Analysis Report (SAR) to include new information and analyses submitted in response to the NRC staff RAIs. The NRC analyses in the EIS use both applicant and independently sourced information to reach evaluation conclusions. Documents relied upon for the NRC's analysis are publicly available and cited in the EIS. Following the NRC's NEPA-implementing guidance, the NRC staff thoroughly analyzed the resource areas within the scope of the EIS and presented these results in the draft EIS for comment and has now finalized the EIS based on the feedback, as appropriate.*

Regarding the concerns about use of outdated information, the NRC staff considers the type of information that is available and determines whether it is still appropriate for use as is, in lieu of, or in combination with current available information that is more indicative of the effect a proposed facility will have on the environment. For example, if a site's geologic characterization has not changed in many years, older studies may still be applicable and useful for the evaluation process. Commenters did not provide additional sources of information for the NRC staff to consider or evaluate; therefore, no changes were made to the EIS as a result of these comments.

The NRC staff recognizes that NEPA calls for a hard look at the significant environmental impacts associated with a major Federal action. The NRC staff disagrees with the comments that it has failed to take a hard look at environmental impacts of the proposed Holtec CISF. As described above, the NRC staff has performed its review consistent with its regulations and guidance implementing NEPA and other applicable laws.

Finally, for this proposed project, the NRC's environmental review team includes highly qualified professionals with extensive experience working in their respective areas of expertise. As listed in EIS Chapter 10, this group of scientists and engineers includes hydrologists, geologists, ecologists, health physicists, social scientists, nuclear engineers, environmental scientists, and chemical engineers, among other disciplines.

Comments expressing objection to the proposed project are addressed in Section 2.35 of this appendix.

No changes were made to the EIS in response to these comments."

Comments: (430-26) (430-30)

S.9 Comments Concerning Historic and Cultural Resources

S.9.1 Historic and Cultural Resources—Concerns About Site Eligibility and Tribal Consultation

A commenter expressed concern that two cultural resources sites listed in the EIS that were of interest to the Hopi Tribe had not been adequately addressed. The commenter stated that the EIS did not document consensus among Tribes that the sites were not eligible for listing on the National Register of Historic Places. In addition, the commenter stated concern that the BLM may not have been able to adequately consider whether disturbance to sites would occur because the ROW application has not yet been submitted.

Response: The BLM reviewed sections of the EIS related to the rail spur in their role as a cooperating agency for development of this EIS and will also review the ROW application when submitted, as discussed in Section S.3.1 of this Supplement. Consultation resolution in accordance with the National Historic Preservation Act (NHPA) Section 106 is discussed in EIS Sections 1.7.2, 1.7.3, 3.9.3, and 4.9.1. The topic of resolution of concerns regarding cultural resources sites were addressed in a comment response in Appendix D of the final EIS, and that response is repeated here for completeness. No changes were warranted to the EIS as a result of this comment.

"D.2.19.2 Historic and Cultural Resources—Concerns About Tribal Cultural Resources at the Proposed Project Area

Response: *The NRC staff evaluated information about historic and cultural resources in the Holtec ER and from independent sources as part of the environmental review process. The characterization of historic and cultural resources in the proposed CISF project area is found in EIS Section 3.9; the impact analysis from the proposed CISF is in EIS Section 4.9, and the cumulative impacts are assessed in EIS Section 5.9.*

Regarding the concerns about sites associated with Laguna Gatuna and Laguna Plata, EIS Section 4.9 includes an explanation of the direct and indirect APEs, which outlines where potential impacts are expected to occur as a result of the proposed project. The NRC staff, with the assistance of a professional archeologist and Tribal consultation, identified a direct and indirect APE for the proposed project. The APE for direct effects includes a total area of 201.51 ha [497.93 ac], and the APE for indirect effects includes a 1.6-km [1-mi] radius around the direct APE. While a portion of Laguna Gatuna is within the indirect APE, Laguna Plata is not within either APE. In other words, there would not be any project-related ground-disturbing activities within the direct APE that might impact either laguna. A portion of the Laguna Gatuna is within the indirect APE, but no historic properties were identified within the indirect APE and therefore none would be affected by proposed site activities. For both lagunas, the stormwater water runoff from the proposed CISF may cause erosion; however, the impact from the proposed project would be limited because of Holtec's commitment to implement stormwater management practices. Therefore, the NRC staff maintain that the EIS accurately evaluated the appropriate impact determination for the identified APEs. EIS Section 5.9 also provides an analysis of the potential cumulative impacts that could occur from the proposed CISF within a geographic radius of influence that encompasses a 16-km [10-mi] radius around the proposed Holtec CISF project.

The comment about the thoroughness of the NRC review of historic and cultural resources does not provide additional information to the NRC regarding which historic and cultural sites were not considered in the EIS or what additional sources of information should be included. Therefore, the NRC staff are unable to respond in detail to the comment.

Regarding the comments about artifacts of concern to Tribes, as part of NRC's compliance with Section 106 of the NHPA, EIS Section 3.9.3 states that the NRC staff identified 11 Tribes that may attach religious and cultural significance to historic properties in the area of potential effects and invited them to be consulting parties, including the Mescalero Apache and the Hopi Tribes. The NRC staff also consulted with the NM SHPO in October 2018, which identified 4 sites within the direct area of potential effect for the project. Four Tribes, including the Navajo Nation, Pueblo of Tesuque, Hopi Tribe, and the Kiowa Tribe of Oklahoma indicated that they would like to participate as a consulting party under Section 106 of the NHPA.

The Hopi Cultural Preservation Office responded to the NRC staff's invitation for consultation in a letter dated September 16, 2019, and identified two sites of cultural significance to the Tribe–Site LA 187010 and Site LA 89676. The office stated that it "supports the identification and avoidance of our ancestral sites," and that if these sites cannot not be avoided by project activities, "this proposal may result in adverse effects to

cultural resources significant to the Hopi Tribe" (Hopi Cultural Preservation Office, 2019). Site LA 187010, and Site LA 89676 are described in EIS Sections 3.9.2 and 4.9.1.1. On December 12, 2019, the NRC staff sent letters to the Navajo Nation, Pueblo of Tesuque, Hopi Tribe, and the Kiowa Tribe of Oklahoma to participate in upcoming activities associated with consultation on the project, including a site visit (NRC, 2019b[4]).

Since the original consultation with the NM SHPO, the site footprint was revised and left only one site (of the original 4 sites) within the direct APE. On February 4, 2020, the Navajo Nation attended a site visit with the NRC staff and a professional archaeologist to evaluate the one site that remained within the direct APE. At the site visit, the group evaluated the current status of the site and decided that it was not likely to be a potentially eligible site. However, to verify the decision, the group agreed that additional testing should be completed. That testing confirmed that the site was not a potentially eligible site. On August 26, 2020, the NRC staff provided the Navajo Nation, Pueblo of Tesuque, Hopi Tribe, and the Iowa Tribe of Oklahoma with a copy of NRC's draft report on the identification of historic properties and its proposed eligibility recommendations, and the NRC staff requested that the Tribes review and comment on the report. As noted in EIS Table 3.9-1, the 4 sites originally identified within the direct APE during earlier cultural resources surveys, including the two sites the Hopi Cultural Preservation Office identified, are either no longer within the footprint of the proposed project activities or are not recommended as potentially eligible sites. The NM SHPO and the Hopi Tribe Cultural Preservation Office concurred with the NRC staff's recommendations on site eligibility.

The NHPA process has been completed, and EIS Sections 1.7.2, 3.9.2, and 4.9.1.1 and Appendix A have been updated to reflect additional Section 106 activities that occurred since the draft EIS was published, including final consultations with Tribes and NM SHPO. Based on the conclusion of the Section 106 process, the NRC staff determine that there would be no effect on historic properties from the proposed CISF. Additional information on NRC's consultations with Tribes and the NM SHPO is provided in Section 2.3 of this appendix [Comments Concerning NHPA Section 106].

Additional responses to comments about impacts to historic and cultural resources are provided throughout this section (Section 2.19) of this appendix [Comments Concerning Historic and Cultural Resources].

No specific changes were made to the EIS as a result of these comments."

Comment: (430-27)

[4] This reference is NRC, 2019b in the final EIS. In this report, because of order of occurrence, it is listed in the references section as NRC, 2019d.

S.10 Comments Concerning Cumulative Impacts

S.10.1 Cumulative Impacts—BLM Consideration of Two CISFs

A commenter stated that the BLM should have considered the cumulative impacts of having two potential CISFs located in close proximity, but that this factor is not included in the EIS.

Response: The BLM was a cooperating agency in the development of the EIS and reviewed and provided input to all relevant sections, in particular regarding the rail spur. The potential for two CISFs in close proximity is addressed in EIS Section 5.1.1.3 and throughout the Chapter 5 cumulative impacts analysis. The Chapter 5 cumulative impacts analysis includes the rail spur area where appropriate, given each resource area's geographic scope of analysis. No changes were made to the EIS as a result of this comment.

Comment: (430-19)

S.11 Comments of General Opposition

S.11.1 General Concern and Opposition—Environmental Justice Concerns

A commenter pointed out that the EIS does not discuss that New Mexico does not store any SNF, yet is a “majority-minority” state, representing an environmental justice issue. The commenter also stated that these concerns were not included in the scoping summary report.

Response: This topic is similar to other comments received about environmental justice and general concern and opposition that were addressed in the final EIS in Appendix D, and those responses are repeated here for completeness. Regarding the concern that scoping comments on this topic were not captured in the scoping summary report (NRC, 2019a), the NRC staff acknowledged and addressed these concerns in Section A.7 and B.29.1 of that report. No changes to the final EIS were warranted as a result of this comment.

> *“D.2.18.1 Environmental Justice—Concerns About Environmental Justice*
>
> *Response*: *The NRC staff evaluated environmental justice impacts in detail in EIS Sections 4.12 and 5.12. The purpose of the evaluation is to determine the potential physical environmental impacts and the potential radiological health effects from constructing, operating, and decommissioning and reclaiming the proposed CISF, including the rail spur, to identify means or pathways for the proposed project to disproportionately affect minority or low-income populations. The environmental justice impact analysis performed for the EIS was conducted in accordance with the NRC’s “Final Policy Statement on the Treatment of Environmental Justice Matters in NRC Regulatory and Licensing Actions” (69 FR 52040) and NUREG–1748, “Environmental Review Guidance for Licensing Actions Associated with NMSS Programs” (NRC, 2003), which describes environmental justice procedures to be followed in NEPA documents prepared by the NRC’s Office of Nuclear Material Safety and Safeguards (NMSS). These guidance documents and the EIS’s analysis of human health and the environment are consistent with the Council on Environmental Quality’s “Environmental Justice Guidance Under the National Environmental Policy Act” (CEQ, 1997) and the Federal Interagency Working Group on Environmental Justice and the NEPA Committee’s*

"Promising Practices for Environmental Justice Methodologies in NEPA Reviews" (EPA, 2016). The NRC staff's methodology for the EIS's environmental justice analysis is explained in response to comments in Section 2.18.3 of this appendix [Environmental Justice—NRC's Environmental Justice Methodology].

The NRC strives to conduct its regulatory responsibilities in an open and transparent manner, consistent with the NRC Approach to Open Government (https://www.nrc.gov/public-involve/open.html). The NRC is committed to engaging with all stakeholders fairly and ethically, without discrimination or racism. All stakeholders, including government representatives, Tribal members, and members of the public, are encouraged to participate in the NRC's licensing actions. As part of the scoping process for this project that informed development of the EIS, the NRC staff conducted scoping meetings and prepared a scoping summary report (NRC, 2019a). Many comments regarding environmental justice were received during the scoping period, and the NRC staff considered each of them.

As discussed further in Section 2.2.6 of this appendix, the NRC's licensing framework is not a consent-based process; therefore, consent-based siting and requests for such are beyond the scope of this EIS. The AEA of 1954 requires that the NRC establish criteria for the licensing of nuclear facilities, including spent nuclear material storage facilities. Absent Congressional direction to do so, the NRC may not deny a license application for failure to conduct consent-based siting. The NRC licensing process does, however, offer multiple opportunities for public involvement, including an opportunity for public comment on the EIS scoping process and the draft EIS. Hearing opportunities are also available, but are subject to the procedural requirements (e.g., standing and contention admissibility) in 10 CFR Part 2. A comment response that describes the adjudicatory hearing process is provided in Section 2.1.1 of this appendix.

EIS Sections 4.12 and B.2 explain that the NRC staff considered the potential human health and environmental effects such as land use, transportation, soils, groundwater quality, groundwater water quantity, ecology, air quality, socioeconomics, and the expected radiological and nonradiological health impact from the proposed action on minority and low-income populations. The NRC staff also evaluated the potential impacts on public and occupational health and safety for the proposed action in EIS Section 4.13, including environmental transport to air, water, soil, and subsequent inhalation or ingestion. The NRC staff also considered means or pathways for the proposed project to disproportionately affect minority or low-income populations (e.g., crop production and subsistence consumption of fish) as described in EIS Sections 4.12 and B.2. No means or pathways have been identified from the proposed project by the NRC staff, the public, Tribes, or other agencies that would have potential disproportionately high and adverse health effects on minority or low-income populations. Comments related to the assessment of transportation risks from accidents are addressed in Section 2.9 of this appendix [Comments Concerning Transportation of SNF: Safety/Accidents].

The NRC staff reviewed the map that some of the commenters referred to in their comments that shows current and past facilities and features in New Mexico. Some of the facilities and features the commenters identified are legacy nuclear testing sites and radiological facilities. All the facilities on the map that commenters provided are within the geographic scope of influence of the proposed CISF and were considered during

the draft EIS development, with the exception of the Gnome-Coach site, an underground nuclear test facility. Information about the Gnome-Coach site was added to EIS Section 5.1.1.2, and this site was evaluated within the cumulative analysis of each resource section where appropriate. The NRC staff considered potential impacts from past, present, and reasonably foreseeable future actions within 80 km [50 mi] of the proposed CISF, including the Waste Control Specialists existing low-level waste facility and the recently licensed but not constructed ISP high-level waste CISF in Andrews County, Texas. A detailed description and a map of the actions that the NRC staff considered for all resources, including environmental justice, are provided in EIS Section 5.1.

Additional information and responses to comments with concerns about potential effects on other industries in the area is provided in this appendix in Section 2.17.3 [Socioeconomics—Impact on Other Industries].

Additional information and responses to comments with concerns about the geologic stability of the site and the geologic resources is provided in this appendix in Section 2.13 [Comments Concerning Geology and Soils].

Information on accidents at the facility can be found in Sections 2.25 and during transportation in Section 2.9, of this appendix. Information about Tribal consultations is provided in EIS Sections 1.7, 3.9, and 4.9, and in Section 2.19 of this appendix [Comments Concerning Historic and Cultural Resources]. Additional information about NRC's Tribal Policy Statement (82 FR 2402) is provided in Section 2.19.6 [Historic and Cultural Resources—Tribal Sovereignty] of this appendix.

Because the USCB released updated information after the draft EIS was developed, the NRC staff made changes to relevant sections throughout the EIS, and specifically to EIS Section 4.11, to reflect the most currently available data.

No changes were made to the EIS as a result of these comments."

"D.2.35.1 General Concern and Opposition—General Comments

Response: *The NRC acknowledges the comments in opposition to the project. Through the AEA, Congress has mandated that the NRC establish regulations to allow the licensing of nuclear facilities, including SNF storage sites. The NRC is following its established regulations in this licensing review and EIS process. For an applicant to receive a license, the NRC staff conducts a thorough environmental review in accordance with NEPA and in parallel to its environmental review, the NRC conducts a safety review. The safety and environmental reviews carefully assess the safety and environmental impacts of the proposed CISF and aspects of the associated transportation of SNF, which are documented in an EIS and SER. Information from these evaluations will be used by the NRC in the decision whether to grant a license to Holtec to construct, operate, and decommission the proposed CISF. Together, these reviews evaluate many of the issues raised by commenters, including safety, accidents, security, financial assurance, and facility design (in the safety review) and land use, transportation, water resources, ecology, air quality, geology and soils, socioeconomics, environmental justice, waste management, public and occupational health, visual and*

scenic resources, and historic and cultural resources. The EIS also evaluates alternatives to the proposed action, cost benefit, and cumulative impacts from past, present, and reasonably foreseeable future actions. Decommissioning is included in the EIS to an extent, and as described throughout these sections of the EIS, the NRC's process requires a decommissioning plan to be submitted and approved prior to project closure.

While the comments expressing general opposition are useful for the NRC to understand public opinion about the licensing action, the comments provide no new information regarding the draft EIS or CISF environmental review and are not addressed further in the EIS. Regarding comments that the EIS did not adequately address issues of concern, these comments were general in nature and did not provide additional details for the NRC staff to address. If the general statements of opposition were accompanied by specific comments, those are addressed throughout the subject-matter specific sections of this appendix.

Related comments that contained additional detail about these areas of review are located in other sections of this appendix (e.g., Section 2.26 on safety, Section 2.25 on accidents, and Section 2.4.2 on de facto disposal and repository availability). Consent-based siting is addressed in Section 2.2.6 [NEPA Process: Public Participation—Consent Based Siting].

Issues related to the proposed geologic repository at Yucca Mountain, cessation of nuclear power, and business practices of the applicant are beyond the scope of the EIS, as explained further in Section 2.37.13 of this appendix.

No changes were made to the EIS as a result of these comments."

Comment: (430-29)

S.12 Comments of General Support

S.12.1 General Support—Statements in Support of the EIS

A commenter provided statements of support for the preparation, analysis, and conclusions in the EIS, noting that the agencies involved had satisfied their obligations under NEPA. The commenter also noted the record of safe SNF shipments and NRC's robust regulatory risk assessments in support of the EIS transportation analysis.

Response: Similar comments on this topic were addressed in the final EIS in Appendix D, and that response is repeated here for completeness. No changes to the final EIS were warranted as a result of these comments.

"D.2.36.2 General Support—Statements in Support of the EIS

The NRC staff received several comments in support of the content, quality, and conclusions drawn in the EIS. Some of the commenters stated the importance of the EIS with respect to the licensing process or development of the proposed project.

Response: *The NRC staff acknowledges the comments; however, they are general in nature and do not provide any new information for consideration in the development of the final EIS.*

No changes were made to the EIS as a result of these comments."

Comments: (429-3) (429-4) (429-5)

S.12.2 General Support—Statements in Support of the Proposed Holtec CISF

A commenter provided statements of support for the proposed Holtec CISF, noting that it represents a responsible and well-planned project. The commenter pointed to the EIS cost-benefit and socioeconomic analyses in stating their support that the project will be beneficial.

Response: Similar comments on this topic were addressed in the final EIS in Appendix D, and that response is repeated here for completeness. No changes to the final EIS were warranted as a result of these comments.

"D.2.36.1 General Support—Support for Holtec or the Proposed Project

Response: *While these comments are useful for the NRC staff to understand the public perspective on the proposed project, they do not provide any specific information related to the environmental effects of the proposed action or recommend changes to the EIS. Regarding comments citing the safety of the nuclear industry and nearby facilities, the NRC has evaluated Holtec's proposal based on its own merits and whether the proposed facility meets regulatory requirements. As reasons for the statements of support, some of the comments mentioned specific aspects of the Holtec proposal that were evaluated in the EIS, such as site suitability and transportation of SNF. The NRC's impact determinations related to site suitability and transportation can be found in EIS Chapter 4. Aspects of the project related to safety are evaluated as part of the NRC's safety evaluation conducted in parallel with this environmental review.*

Regarding criticisms of comments in opposition to the proposed project, see Section 2.2.4 of this appendix [NEPA Process: Public Participation—Concerns About Other Commenters].

No changes were made to the EIS as a result of these comments."

Comments: (429-1) (429-6) (429-8)

S.13 Comments that are Out of Scope

S.13.1 Out of Scope—Land Withdrawals Related to WIPP

A commenter stated that the EIS should have considered BLM court cases regarding permanency of land withdrawal related to the Waste Isolation Pilot Plant (WIPP) site.

Response: Comments regarding legal processes and site-specific issues for other sites are outside the scope of the EIS. Comments on issues related to WIPP and other sites were

addressed in the final EIS in Appendix D, that that response is repeated here for completeness. Related issues about the potential for the CISF to become permanent and the appropriate timeframe of analysis in the EIS are addressed in this Supplement in Sections S.4.1 and S.4.2, respectively. Because this topic is out of scope and related issues are already addressed, no changes were warranted to the final EIS as a result of these comments.

> *"D.2.37.9 Out of Scope—Site Specific Issues at Other Facilities or Sites*
>
> *Response*: *The scope of the EIS is limited to an analysis of the environmental impacts from the proposed CISF. The EIS includes a cumulative impacts analysis that considers past, present, and reasonably foreseeable future actions (including existing facilities) in the vicinity of the proposed CISF that could affect the same resources as those affected by the proposed CISF. Comments about site-specific concerns at other locations are outside the scope of the EIS, and previously certified casks and storage systems are not readdressed in the EIS. With respect to safety and accidents, additional information can be found in Sections 2.26 [Comments Concerning Safety] and 2.25 [Comments Concerning Accidents], respectively, of this appendix. The NRC staff notes that WIPP and national laboratories in New Mexico are DOE facilities over which the NRC does not have regulatory authority. Also, there is no high-level waste stored at WIPP, nor is such storage proposed as part of this licensing action. Because these comments are beyond the scope of the EIS, no edits were made to the EIS."*

Comments: (430-17) (430-18)

S.13.2 Out of Scope—Concerns Regarding Legacy Sites

One commenter stated that the EIS does not adequately consider the historic environmental injustices presented by legacy projects such as uranium milling and mining, the Trinity test, and other nuclear activities in the State of New Mexico.

Response: The topic presented in this comment was addressed in the final EIS in Appendix D, and that response is repeated here for completeness. No changes were warranted to the final EIS as a result of this comment.

> *"D.2.37.7 Out of Scope—Legacy Issues*
>
> *Response*: *The scope of the EIS focuses on the environmental impacts that could result from the construction, operation, and decommissioning of the proposed CISF. The NRC staff evaluated human health impacts related to the proposed facility, as well as the cumulative impacts that could occur from the incremental impact of the proposed CISF when added to past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal), person, or entity undertakes these actions. EIS Chapter 5 provides an assessment of these cumulative impacts in the vicinity of the proposed CISF regarding the topics mentioned in the comments, including groundwater, surface water, and public health and safety. A detailed description and a map of the actions that the NRC staff considered for all resources, including environmental justice, are provided in EIS Section 5.1. The NRC staff reviewed the information the commenters referred to in their comments to evaluate the applicability to the proposed project. The facilities the commenters identified are legacy nuclear testing or radiological facilities that are not in the geographic scope of influence of the proposed CISF or are*

already included in the analysis in EIS Chapter 5. The scope of the EIS regarding cumulative impacts is further explained in Section 2.24 of this appendix [Comments Concerning Cumulative Impacts].

Comments regarding other facilities, legacy sites, concerns about uranium mining, and compensation for past projects are not within the scope of the EIS. Many of the projects listed by commenters are nuclear weapons testing sites, which are not within the statutory purview of the NRC. The potential impacts from legacy sites in the State that would extend beyond the geographic areas of interest for the resource areas affected by the proposed CISF are outside the scope of the EIS. Redirection of resources toward cancer or health research or remediation of past sites is also not within the scope of the EIS. The NRC staff does not have the authority to require an applicant to submit a different proposal, or to direct its resources toward health studies or cleanup of legacy sites.

Concerns about additional dose exposure is discussed in EIS Sections 4.3 and 4.13, which provide dose estimates that members of the public would receive from operation of the proposed CISF and compares those doses to NRC dose limits (i.e., 10 CFR Part 20 and 10 CFR Part 72, where appropriate). EIS Sections 5.3 and 5.13 also discuss cumulative radiological impacts that may result from nearby facilities and past, present, and reasonably foreseeable future actions. The NRC assumes there is some health risk associated with any amount of radiation dose, no matter how small; this approach is consistent with the conclusions of BEIR VII (National Research Council, 2006) and other expert panels, such as the International Commission on Radiation Protection. However, general studies regarding the potential effects on health from radiation and radiation dose standards are not reevaluated in this EIS. Additional information about radiological health is discussed in Sections 2.9.12 [Transportation of SNF—Impact Analysis Approach—Occupational Dose] and 2.22 [Comments Concerning Radiological Health] of this appendix.

No changes were made to the EIS as a result of these comments."

Comment: (430-28)

S.14 Editorial

S.14.1 Editorial Comments

A commenter stated that the EIS contained typographical errors as well as an error related to the licensing status of PFS.

Response: The NRC staff made several corrections to the draft EIS during finalization; several of these corrections were in response to comments. The topics of editorial corrections and the description of the PFS license status were addressed in a response in the final EIS in Appendix D, and that response is repeated here for completeness. No further changes to the final EIS were warranted as a result of these comments.

"D.2.33.1 Editorial

Response: *The NRC staff reviewed the changes commenters recommended to correct inaccuracies or inconsistencies or provide clarity. Based on the staff's discretion, the EIS and Reader's Guide were updated where appropriate. These minor revisions did not affect the analyses or the impact conclusions presented in the EIS or the Reader's Guide. The NRC staff disagrees that the error regarding the license status of PFS is a significant error because it does not in any way affect the analyses or conclusions in the EIS. Furthermore, that facility was never built, and the license was subsequently terminated."*

Comments: (430-31) (430-32)

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[5] This reference occurs as NRC, 2019b in the quoted text from the final EIS, NUREG-2237. It is listed as NRC, 2019d in this document because of order of occurrence.

NRC FORM 335
(12-2010)
NRCMD 3.7

U.S. NUCLEAR REGULATORY COMMISSION

BIBLIOGRAPHIC DATA SHEET

(See instructions on the reverse)

1. REPORT NUMBER
(Assigned by NRC, Add Vol., Supp., Rev., and Addendum Numbers, if any.)
NUREG-2237, Supp. 1

2. TITLE AND SUBTITLE
Environmental Impact Statement for the Holtec International's License Application for a Consolidated Interim Storage Facility for Spent Nuclear Fuel, Supplement 1

3. DATE REPORT PUBLISHED

MONTH	YEAR
October	2022

4. FIN OR GRANT NUMBER

5. AUTHOR(S)

6. TYPE OF REPORT
Supplement

7. PERIOD COVERED (Inclusive Dates)

8. PERFORMING ORGANIZATION - NAME AND ADDRESS (If NRC, provide Division, Office or Region, U. S. Nuclear Regulatory Commission, and mailing address; if contractor, provide name and mailing address.)
Office of Nuclear Material, Safety and Safeguards
U.S. Nuclear Regulatory Commission
11545 Rockville Pike
Rockville, MD 20852

9. SPONSORING ORGANIZATION - NAME AND ADDRESS (If NRC, type "Same as above", if contractor, provide NRC Division, Office or Region, U. S. Nuclear Regulatory Commission, and mailing address.)
Same as above

10. SUPPLEMENTARY NOTES
Prepared

11. ABSTRACT (200 words or less)
The NRC issued NUREG-2237 in draft form in March 2020 and accepted comments until September 22, 2020. Appendix D to the final EIS identifies and responds to the comments received on the draft EIS. However, two comment letters that were submitted to the NRC during the comment period on the draft EIS were inadvertently not included in Appendix D to the final EIS. The comment letters were discovered after the publication of the final EIS in July 2022. This Supplement to NUREG-2237 considers and responds to these two comment letters. This Supplement documents the NRC's evaluation of each of these comment letters that were not included in the final EIS. While the comments do not provide new and significant information regarding the project or its environmental impacts, the NRC staff is of the opinion that, in view of the circumstances described above, and in accordance with 10 CFR 51.92(c), preparation of a supplement to the final EIS will further the purposes of the National Environmental Policy Act of 1969, as amended (NEPA).

On the basis of the information documented in the final EIS (NUREG-2237) and this Supplement, the NRC staff finds that the comment letters not included in the final EIS did not provide information that would change the analysis in the final EIS or the NRC staff's recommendation to the Commission to issue a license to Holtec authorizing the initial phase of the project, subject to the determinations in the staff's safety review of the application.

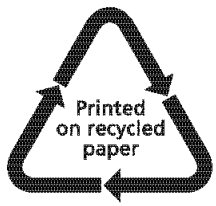
12. KEY WORDS/DESCRIPTORS (List words or phrases that will assist researchers in locating the report.)
environment, environmental impact, cumulative, impacts, consolidated interim storage, spent fuel, storage facility, Holtec, CISF, interim, comment response

13. AVAILABILITY STATEMENT
unlimited

14. SECURITY CLASSIFICATION
(This Page)
unclassified
(This Report)
unclassified

15. NUMBER OF PAGES

16. PRICE



Federal Recycling Program

NUREG-2237
Supplement 1

Environmental Impact Statements for Holtec International's License Application for a Consolidated Interim Storage Facility for Spent Nuclear Fuel in Lea County, New Mexico

October 2022