UNITED STATES OF AMERICA NUCLEAR REGULATORY COMMISSION BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)	
)	
Holtec International)	Doc
)	
HI-STORE Consolidated Interim Storage Facility)	
)	

Docket No. 72-1051

MOTION BY PETITIONERS BEYOND NUCLEAR AND FASKEN TO AMEND THEIR CONTENTIONS REGARDING FEDERAL OWNERSHIP OF SPENT FUEL TO ADDRESS HOLTEC INTERNATIONAL'S REVISED LICENSE APPLICATION

I. INTRODUCTION

Pursuant to 10 C.F.R. § 2.309(c)(1), Beyond Nuclear and Fasken Land and Minerals and

Permian Basin Land and Royalty Owners ("Fasken") (collectively, "Petitioners") hereby move to

amend certain of their contentions in this U.S. Nuclear Regulatory Commission ("NRC" or

"Commission") licensing proceeding for Holtec International's ("Holtec's") application for a

license to build and operate a centralized interim spent fuel storage facility ("CISF") in Lea

County, New Mexico. Petitioners' amended contentions address a recently submitted revision to

Holtec's Environmental Report on the Hi-Store CIS Facility (Nov. 2018) (ML19016A266)

("Environmental Report (Rev. 3)"). In addition, the amended contentions address a recent report

by Holtec International to its investors, Holtec Reprising 2018 (Jan. 2, 2019) ("Reprising 2018

Report") (Exhibit 1).¹

¹ Petitioners (together with Sierra Club and Don't Waste Michigan, et al.) previously submitted a motion to amend their contentions and strike certain statements from Holtec's pleadings, based on the Reprising 2018 Report. *See* Motion by Petitioners Beyond Nuclear, Fasken, the Sierra Club, and Don't Waste Michigan, et al. to Amend Their Contentions Regarding Federal Ownership of Spent Fuel to Address New Information Confirming that Holtec's License Application Contains False or Misleading Statements and Motion by Petitioners to Strike Unreliable Statements from Holtec's Responses to Petitioners' Hearing Requests (Jan. 15, 2019).

Background information regarding Petitioners' original contentions, changes to Holtec's license application, and the Reprising 2018 Report is provided below in Section II. The amended contentions are stated and supported in Section III.² In Section IV, Petitioners demonstrate that they have good cause for filing their amended contentions after the original filing deadline.

II. BACKGROUND

A. Holtec's 2018 License Application

Holtec applied for a license for the CISF on March 30, 2017. 83 Fed. Reg. 32,919 (July 16, 2018). This original license application, designated "Revision 0," included a Safety Analysis Report, License Conditions, Financial Assurance and Project Life Cycle Cost Estimates, and an Environmental Report.

Holtec's original license application made representations about the ownership of the spent fuel that were internally contradictory. Holtec's Environmental Report (Rev. 0) stated that Holtec does not plan to begin construction of the proposed CISF until "after Holtec successfully enters into a contract for storage with the U.S. Department of Energy (DOE)." *Id.* at 1-1. The Environmental Report (Rev. 0) (ML17139C535) also stated that "DOE would be responsible for transporting [spent nuclear fuel] from existing commercial nuclear power reactor storage facilities to the CIS Facility." *Id.* at 3-93. These parts of Holtec's original Environmental Report

^{(&}quot;January 15 Motion"). The events addressed in the January 15 Motion have been superseded by the Environmental Report (Rev. 3), and therefore Petitioners withdraw that Motion.

² As previously stated in Beyond Nuclear's Hearing Request and Petition to Intervene at 2 (Sept. 14, 2018) ("Beyond Nuclear Petition"), the claims in Petitioners' contentions arise under the Nuclear Waste Policy Act and the Administrative Procedure Act and therefore do not lie within the scope of this proceeding. Nevertheless, as instructed by the Commission in its Order of October 29, 2018, and in an abundance of caution, Petitioners are raising their claims in the context of hearing requests, contentions, and amended contentions in this licensing proceeding.

thus assumed that DOE would take responsibility for the spent fuel to be stored at the CISF, beginning with transfer of ownership to DOE at reactor sites before shipment.³

In contrast, in other parts of Holtec's license application, Holtec hedged the assumption that DOE will own the spent fuel, instead asserting that ownership or liability may rest with *either* licensees *or* the DOE. *See, e.g.*:

- HI-STORE CIS Facility Financial Assurance and Project Life Cycle Cost Estimates, Rev.
 0 (Report No. HI-2177593) at 3 ("Additionally, as a matter of financial prudence, Holtec will require the necessary user agreements in place (from the USDOE and/or the nuclear plant owners)") (emphasis added);
- License Condition # 17, Proposed License for Independent Storage of Spent Nuclear Fuel at 2 (ADAMS Accession No. ML17310A223) ("the construction program will be undertaken only after a definitive agreement with the prospective user/payer for storing the used fuel (*USDOE and/or a nuclear plant owner*) at the HI-STORE CIS has been established") (emphasis added); and
- Safety Analysis Report, Table 1.0.2 at 26 (ML18254A413) ("In accordance with 10CFR72.22, the construction program will be undertaken only after a definitive agreement with the prospective user/payer for storing the used fuel (*USDOE and/or a nuclear plant owner*) at HI-STORE CIS has been established.") (emphasis added).

B. Petitioners' Hearing Requests

Petitioners submitted separate hearing requests challenging Holtec's license application on the ground that it impermissibly relies on federal ownership of spent fuel to be transported to

³ As discussed below in Section II.D, these representations in the Environmental Report (Rev. 0) are consistent with the representations in Reprising 2018 Report.

and stored at the proposed CISF. Beyond Nuclear Petition; Motion of Fasken Land and Minerals and Permian Basin Land and Royalty Owners to Dismiss Licensing Proceedings for Hi-Store Consolidated Interim Storage Facility and WCS Consolidated Interim Storage Facility (Sept. 14, 2018) ("Fasken Motion to Dismiss").⁴

Petitioners' contentions charged that Holtec's assumption of federal ownership of spent fuel violated the Nuclear Waste Policy Act ("NWPA"), 42 U.S.C. §§ 10222(a)(5)(A). The NWPA precludes the DOE from taking title to spent fuel unless and until a permanent repository has opened. *See* Beyond Nuclear Petition at 10 (incorporating Sections IV and V of Beyond Nuclear's Motion to Dismiss Licensing Proceedings for Hi-Store Consolidated Interim Storage Facility and WCS Consolidated Interim Storage Facility for Violation of the Nuclear Waste Policy Act (Sept. 14, 2018) ("Beyond Nuclear's Motion to Dismiss")); Fasken Motion to Dismiss at 7 (incorporating Beyond Nuclear's Motion to Dismiss).

C. Holtec's Responses to Petitioners' Hearing Requests

In responding to Petitioners' contentions, Holtec disavowed the statements in the Environmental Report (Rev. 0) that provided DOE would take title to spent fuel to be transported to and stored at the proposed CISF. Holtec asserted that it would revise the document to make clear that the owner of spent fuel stored at the proposed CISF would be *either* the DOE *or* private licensees. For instance, in response to Beyond Nuclear's contention, Holtec stated:

The contention's factual predicate – its "central premise" – is that the DOE "will be responsible for the spent fuel that is transported to and stored at the proposed interim facilities." *Id.* at 10. This "central predicate," that DOE will hold title to the spent fuel that will be stored at the CISF, is incorrect.

⁴ In an Order dated October 29, 2018, the Commission referred Fasken's Motion to Dismiss to the Atomic Safety and Licensing Board ("ASLB") for consideration as a hearing request. Therefore, in this Motion, Petitioners refer to Fasken's Motion to Dismiss as a contention. Fasken also moved to dismiss a similar license application by Interim Storage Partners and Waste Control Specialists for a CISF in Texas, but that application is not at issue here.

Holtec International's Answer Opposing Beyond Nuclear Inc. Hearing Request and Petition to

Intervene on Holtec International's HI-STORE Consolidated Interim Storage Facility

Application at 19 (Oct. 9, 2018) ("Holtec Response to Beyond Nuclear"). And:

The application clearly states that either the nuclear plant owners from where the spent fuel originated *or* the DOE will be the customer for the HI-STORE CIS Facility.

Id. Similarly, in response to Fasken's Motion to Dismiss, Holtec stated:

[S]tatements in the Environmental Report that suggest a broader DOE role by omitting the nuclear plant owner portion of the "USDOE and/or a nuclear plant owner" allocation of responsibility are inconsistent with Holtec's intent and are in the process of being revised to eliminate any confusion and make clear that the Application is *not* based on DOE taking or holding title to the spent fuel which would be stored at the CISF. In any case, the Environmental Report has been amended to remove these inconsistent references.

Holtec International's Answer Opposing Fasken Land and Minerals and Permian Basin Land and

Royalty Owners' Motion to Dismiss / Petition to Intervene on Holtec International's HI-STORE

Consolidated Interim Storage Facility Application at 18 (Dec. 3, 2018) ("Holtec Response to

Fasken"). No revisions to the Environmental Report were posted on the NRC's Agencywide

Documents Access and Management System ("ADAMS") until January 17, 2019, however.

D. Holtec's January 2, 2019 Reprising 2018 Report

On January 2, 2019, Holtec issued the Reprising 2018 Report. The report makes clear

that DOE involvement in the CISF project is a prerequisite for operation of the proposed CISF.

In particular, the Report states:

While we endeavor to create a national monitored retrievable storage location for aggregating used nuclear fuel at reactor sites across the U.S. into one (HI-STORE CISF) to maximize safety and security, *its deployment will ultimately depend on the DOE and the U.S. Congress.*

Reprising 2018 Report at 1 (emphasis added). This statement demonstrates that Holtec continues to assume that DOE will, in fact, take the role of spent fuel owner as set forth in certain parts of the Environmental Report (Rev. 0). This statement also effectively acknowledges that DOE ownership of spent fuel prior to the opening of a repository is unlawful under the NWPA, and therefore that Congressional action will be required before DOE can take title to the spent fuel.

E. Environmental Report, Rev. 3

On January 17, 2019, counsel for Petitioners received an e-mail from NRC Staff counsel Alana Wase, notifying them that a revision to Holtec's license amendment application had been posted on ADAMS. The revisions included Rev. 3 to the Environmental Report (Nov. 2018) (ML19016A493), which removed the previous unequivocal assumptions of DOE ownership of spent fuel and replaced them with statements that the spent fuel would be owned by either the DOE or private licensees. *See* Environmental Report Rev. 3 at 1-1 (now stating that construction of the CISF would begin "after Holtec successfully enters into a contract for storage with the U.S. Department of Energy (DOE) or utility"); *id.* at 3-104 ("DOE or utility licensees would be responsible for transporting [spent nuclear fuel] from existing commercial nuclear power reactor storage facilities to the CIS Facility.").

F. Oral Argument on Contention Admissibility

On January 23 and 24, 2019, the ASLB held an oral argument on the issues of standing and contention admissibility. During the oral argument, counsel for Holtec and Petitioners were questioned on the issue of federal ownership of spent fuel, and also made opening and closing statements that addressed the issue. The oral argument was transcribed.

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III. REQUEST FOR LEAVE TO AMEND CONTENTIONS

A. Applicable Standards

NRC regulation 10 C.F.R. § 2.309(c) allows a petitioner to amend its contentions if the presiding officer finds that the petitioner "has demonstrated good cause" by satisfying the following factors: (i) the information on which the filing is based was not previously available; (ii) the information upon which the filing is based is materially different from information previously available; and (iii) the filing has been submitted in a timely fashion based on the availability of the subsequent information. An amended contention generally is considered timely if it is filed within 30 days of the date upon which the new information became available. *Shaw AREVA MOX Services* (Mixed Oxide Fuel Fabrication Facility), LBP-08-11, 67 N.R.C. 460, 493 (2008) ("Many times, boards have selected 30 days as [the] specific presumptive time period" for timeliness of contentions filed after the initial deadline).

B. Request for Leave to Amend Contentions

Petitioners seek to amend Beyond Nuclear's single contention and Fasken's Motion to Dismiss as follows:

1. Amendments to statements of contention

a. Beyond Nuclear

Beyond Nuclear's single contention currently states:

The NRC must dismiss Holtec's license application and terminate this proceeding because the application violates the NWPA. The proceeding must be dismissed because the central premise of Holtec's application – that the U.S. Department of Energy ("DOE") will be responsible for the spent fuel that is transported to and stored at the proposed interim facilities – violates the NWPA. Under the NWPA, the DOE is precluded from taking title to spent fuel unless and until a permanent repository has opened. 42 U.S.C. §§ 10222(a)(5)(A), 10143.

Beyond Nuclear Petition at 10. Beyond Nuclear seeks leave to amend its contention by adding

the following statement:

Language in Rev. 3 of Holtec's Environmental Report, which presents federal ownership as a possible alternative to private ownership of spent fuel, does not render the application lawful. As long as the federal government is listed as a potential owner of the spent fuel, the application violates the NWPA.

b. Fasken

Fasken's contention asserts that the NRC lacks jurisdiction over Holtec's license

application because it is:

premised on the proposition that the U.S. Department of Energy ("DOE") will be responsible for the spent fuel that would be transported to and stored at the proposed facilities. This premise is prohibited under the NWPA because the DOE is precluded from taking title to spent fuel until a permanent repository is available. 42 USC §§ 10222(a)(5)(A), 42 USC § 10143.

Fasken Motion to Dismiss at 1-2. Fasken seeks leave to amend its contention to add the same

statement as set forth above with respect to Beyond Nuclear's contention:

Language in Rev. 3 of Holtec's Environmental Report, which presents federal ownership as a possible alternative to private ownership of spent fuel, does not render the application lawful. As long as the federal government is listed as a potential owner of the spent fuel, the application violates the NWPA.

2. Amendments to basis statements

Petitioners also seek leave to amend the basis statements for their contentions as follows:

Holtec readily admits that DOE ownership of spent fuel generated by commercial nuclear

power plants violates the NWPA. For instance, in the January 24, 2019 oral argument on

contention admissibility and standing, counsel for Holtec stated:

I will agree with you that, on their current legislation, DOE cannot take title to spent nuclear fuel from commercial nuclear power plants, under the current statement of facts, but that could change, depending on what Congress does.

Tr. 250 (Silberg); see also Tr. 251-252 (exchange between Ryerson and Silberg).

At the outset, it is important to recognize that the Administrative Procedure Act, 5 U.S.C. §§ 551 et seq. ("APA"), prohibits the NRC from issuing a license that contains the illegal option of DOE ownership of spent nuclear fuel, even if this option is characterized as "alternative" or "contingent." This is because federal agencies are not above the law, and they cannot do more than Congress allows. *State of New York, et al. v. U.S. Dept. of Commerce*, Nos. 18-CV-2921, 18-CV-5025, slip op. at 11 (S.D.N.Y. Jan. 15, 2019), Thus, the NRC may not issue a license that contemplates DOE ownership of spent nuclear fuel, when Congress has expressly prohibited this contingency through the NWPA. Indeed, the APA's very purpose is to ensure agencies follow the law. As a U.S. District Court recently explained:

[A]lthough some may deride its requirements as "red tape," the APA exists to protect core constitutional and democratic values: It ensures that agencies exercise only the authority that Congress has given them, that they exercise that authority reasonably, and that they follow applicable procedures — in short, it ensures that agencies remain accountable to the public they serve.

Id. Whether or not Congress changes the NWPA sometime in the future to suit Holtec's wishes is a matter of sheer conjecture. In the meantime, the APA bars the NRC from forcing on Petitioners the unfair choice between challenging a hypothetical application or living with an approved license that would violate federal law were it carried out.

To that end, Holtec's use of alternative language in the license application does not render it lawful. By seeking approval of an operational scheme that *could* include DOE ownership of spent fuel, and therefore *could* result in NWPA violations if carried out, Holtec is petitioning the NRC to violate the NWPA. The fact that Holtec *might not* violate the NWPA does not sanction an NRC licensing decision that would give Holtec the unchecked opportunity. To rule otherwise would violate not only the NWPA and APA, but also basic principles of "comity" between federal agencies. Arizona Public Service Co., et al. (Palo Verde Nuclear

Generating Station, Unites 1, 2, and 3), LBP-82-117A, 16 N.R.C. 1964, 1991 (1964).

Moreover, the severability doctrine does not rescue the license application from illegality. During oral argument on January 24, Holtec's counsel asserted:

Severability clauses exist throughout private contracts and public statutes. There's no indication that putting DOE as a possible participant in this would make illegal private participation in the absence of DOE ability.

Tr. 248 (Silberg). The severability doctrine, however, is entirely inapplicable. That doctrine cannot transform an illegal provision into a legal one. *See Whole Woman's Health v. Hellerstedt*, 136 S. Ct. 2292, 2319, 195 L. Ed. 2d 665 (2016), as revised (June 27, 2016) ("including a severability provision in the law does not change" the conclusion that "the provisions are unconstitutional on their face"). Instead, the doctrine only establishes standards for salvaging *lawful* provisions that exist in a law that already has been enacted or a contract that has already been signed. In these situations, reviewing courts may examine the law or contract at issue and determine whether (1) the illegal provision can be severed and the lawful provision kept, or (2) the illegal provision is so integral that the entire document must be nullified. *Alaska Airlines, Inc. v. Brock*, 480 U.S. 678, 684-85 (1987). *See also Murphy v. NCAA*, 138 S. Ct. 1461, 1482 (2018); *Booker v. Robert Half Int'l, Inc.*, 413 F.3d 77, 85 (D.C. Cir. 2005).

In making that determination, courts look to the intent of the parties and ask whether they would have enacted the law or entered into the contract without the illegal provision in the first instance. *Id.* But today, we are not before a reviewing court; indeed the license has not been issued. There is no need for an after-the-fact inquiry into the intent of the parties. Holtec has expressly conceded that the provision in its license application for DOE ownership of spent nuclear fuel is illegal, but has chosen not to excise it. The only appropriate remedy in such a

circumstance is dictated by the APA, which requires rejection of Holtec's application because it violates the NWPA.⁵

C. Demonstration that the Amended Contentions Are Within the Scope of the Proceeding

For the same reasons stated in Beyond Nuclear's Hearing Request, Petitioners do not believe their amended contentions are within the scope of this proceeding, because NRC regulations establishing the scope do not include the NWPA. *See* Beyond Nuclear Petition at 10; *see also* 10 C.F.R. §§ 72.40, 51.101. The contentions seek compliance by the Commission with the NWPA and the APA, which prohibits the Commission from acting in a manner that is "not in accordance with law," or "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 5 U.S.C. §§ 706(2)(A), (C). *See* Beyond Nuclear Motion to Dismiss, Section IV.B. Nevertheless, as discussed above in note 2, Petitioners are filing these amended contentions in an abundance of caution.

D. Demonstration that the Amended Contentions Are Material to the Findings NRC Must Make to Issue a License to Holtec

For the same reasons as discussed in Section C above, Petitioners' amended contentions are not material to the findings that NRC must make in order to issue a license to Holtec. NRC regulations establishing the scope of the proceeding do not include the NWPA. *See* 10 C.F.R. §§

⁵ If Holtec wishes to go forward with an application that provides *solely* for private ownership of spent fuel, it should re-submit its application without any references to the DOE as a possible owner. And given that significant change, the NRC should re-notice the application in the Federal Register. *Rochester Gas and Electric Co.* (R.E. Ginna Nuclear Plant, Unit 1), LBP-83-73, 18 NRC 1231, 133-36 (1983) (ordering new hearing notice after proceeding was suspended for five years). *See also Connecticut Light and Power Co. v. N.R.C.*, 673 F.2d 525, 533 (D.C. Cir. 1982) ("An agency adopting final rules that differ from its proposed rules is required to renotice when the changes are so major that the original notice did not adequately frame the subjects for discussion.").

72.40, 51.101. The amended contentions seek compliance by the Commission with the NWPA and the APA, which prohibits the Commission from acting in a manner that is "not in accordance with law," or "in excess of statutory jurisdiction, authority, or limitations, or short of statutory right." 5 U.S.C. §§ 706(2)(A), (C). *See* Beyond Nuclear's Motion to Dismiss, Section IV.B. Nevertheless, as discussed above in note 2, Petitioners amend their contentions in an abundance of caution.

E. Concise Statement of the Facts or Expert Opinion Supporting the Contention, Along with Appropriate Citations to Supporting Scientific or Factual Materials

The amended contentions cite the relevant statements in Holtec's License Application, Environmental Report Rev. 0 and 3, and apply relevant law to those facts. No expert opinion is required to raise a material dispute with Holtec on the questions of law raised by the amended contentions.

IV. DEMONSTRATION OF GOOD CAUSE FOR LATE FILING

Petitioners satisfy the three-prong test for good cause to file amended contentions based on new information, as follows:

(i) The information upon which the filing is based was not previously available.

The Environmental Report (Rev. 3) was not available until January 17, 2019. The

Reprising 2018 Report became available on January 2, 2019. Its relevance is related to

the January 17, 2019 revisions to the Environmental Report, and therefore Petitioners'

reliance is timely.

(ii) The information upon which the filing is based is materially different than information previously available.

The text of the Environmental Report (Rev. 3) is materially different from

Holtec's original license application, because it replaces unequivocal language regarding

DOE ownership of spent fuel with alternative language suggesting that either DOE or

private licensees will own the spent fuel.

(iii) The filing has been submitted in a timely fashion based on the availability of the subsequent information.

The amended contentions are being filed within 30 days of Petitioners' having learned of

the issuance of the Environmental Report (Rev. 3) and therefore are timely. Shaw AREVA MOX

Services, 67 N.R.C. at 493.

V. CONCLUSION

For the foregoing reasons, the ASLB should grant Petitioners' motion.

Respectfully submitted,

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Counsel to Fasken Land and Minerals and Permian Basin Land and Royalty Owners

February 6, 2019



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Holtec Highlights

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Holtec Reprising 2018

At Holtec, 2018 will be remembered as the year when the Company's four-year quest to launch its decommissioning program reached a successful milestone. Three nuclear power plants, including Exelon's Oyster Creek Generating Station, and Entergy's Pilgrim Nuclear Power Station and Palisades Nuclear Generating Station, as well as the site of the decommissioned Big Rock Point Nuclear Power Plant near Charlevoix, Michigan, where only the Independent Spent Fuel Storage Installation (ISFSI) remains, are under purchase/sale agreements to transfer their licenses, spent fuel and Nuclear Decommissioning Trusts to Holtec for accelerated decommissioning subject to U.S. NRC's concurrence. As of this writing, the U.S. NRC has accepted the License Transfer Applications for these agreements. In another strategic development, Holtec and SNC-Lavalin (Canada) established a joint venture company named Comprehensive Decommissioning International, LLC (CDI) to carry out decommissioning projects around the world. Holtec's subsidiary, Holtec Decommissioning International (HDI), will hold the Plants' licenses and manage the Company's nuclear assets. CDI and HDI are off to a running start, both dedicated to the safe, rapid, and economic decommissioning of shut down nuclear power plants.

Holtec's effort to establish the HI-STORE CISF (consolidated interim storage facility) in New Mexico remains on track for licensing in 2020 with the NRC acceptance of the license application early in 2018. Numerous meetings across New Mexico were held by Holtec throughout the year to inform the citizens and solicit their opinions. Local public sentiment remains in favor of the Project in the nuclear savvy region of New Mexico. In accordance with the NRC licensing process, an Atomic Safety Licensing Board (ASLB) was established to preside over the HI-STORE CISF licensing process. While we endeavor to create a national monitored retrievable storage location for aggregating used nuclear fuel at reactor sites across the U.S. into one (HI-STORE CISF) to maximize safety and security, its deployment will ultimately depend on the DOE and the U.S. Congress.

Another ambitious Company program, designing and licensing a transformative 160 MW(e) light water reactor, SMR-160, made major strides in 2018 supported by our partners Mitsubishi Electric Corporation and SNC-Lavalin Nuclear. The Canadian Nuclear Safety Commission (CNSC) began review of the SMR-160's safety attributes and candidate designs in 2018. Significant progress has been made, with the first phase of review expected to conclude in late 2019. The results of the engagement are expected to serve as a springboard for future licensing activities globally. The first anticipated leveraging of this regulatory review is expected to be in Ukraine. Early in 2018, the Company announced that Holtec International and NAEK Energoatom, Ukraine's national nuclear operator (one of the world's largest nuclear operators), had signed a Memorandum-of-Understanding that envisages Ukraine to deploy SMR-160's at the Rivne Nuclear Power Plant.

We would like to thank U.S. DOE Secretary Rick Perry for touring Holtec's Advanced Manufacturing Facility and Corporate Engineering Office at the Krishna P. Singh Technology Campus in October and for offering his very enthusiastic remarks to the Holtec staff regarding development of our small modular reactor, the SMR-160, and the preparations we have made in advanced manufacturing to deploy U.S. small modular reactor (SMR) technology worldwide. The Secretary's visit was complimented by the award to Holtec's SMR, LLC subsidiary under the DOE Funding Opportunity Announcement for Advanced Nuclear Technology Development. Through this DOE FOA award SMR, LLC will receive cost-shared financial



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assistance beginning in 2019 for the development of an "Integral and Separate Effects Test Program" for validation of passive safety system performance of the SMR-160. This marks the first government funding for development of the SMR-160. The results of this program will benefit and accelerate the licensing of other SMRs in development for deployment in the U.S. and abroad. Led by Holtec's subsidiary named Holtec Government Services, a second DOE award was received under this FOA program for Advancing and Commercializing Hybrid Laser Arc Welding (HLAW) for Nuclear Vessel Fabrication, which will further advance manufacturing capabilities and the competitive position of U.S. manufactured SMRs. Another significant government related accomplishment in 2018 was the U.S. Small Business Administration's approval of a Mentor-Protégé Joint Venture with Gilmartin Engineering through the All Small Mentor-Protégé Program. Through this Small Business Administration program, Oak Ridge Technologies, LLC, a Joint Venture of Holtec and Gilmartin, will be able pursue small business set-aside government contracts with all the resources and capabilities that the Mentor-Protégé can offer.

In Holtec's core business of dry storage and transport of used nuclear fuel, several new benchmarks were set: a recordbreaking 179 dry storage systems at 20 plants were loaded in 2018, every loaded system beating its targeted dose allotment. The number of U.S. nuclear units served by Holtec's technology surged to 65, with 8 new units switching their allegiance to the HI-STORM technology in 2018. Holtec's worldwide total of nuclear units served by the Company's dry storage and transport systems now stands at 116 in 13 countries. The Company's used fuel program, however, faces strong headwinds as the tariffs on steel and aluminum raise our production cost relative to our rivals who are not affected by the tariffs. Ship loads of regulator-approved storage, and transport equipment and ancillaries for VVER fuel (Russian origin reactors) were delivered to Ukraine's Rivne Nuclear Power Plant for the Country's soon-to-be commissioned *Central Spent Fuel Storage Facility* in the Chernobyl Exclusion Zone.

UAE's Barakah, Exelon's Nine Mile Point, Duke Energy's Harris and KHNP's Shin-Hanul in South Korea were principal Customers of Holtec's wet storage technology and consulting services in 2018. Bookings and deliveries of Holtec's staple capital equipment such as air-cooled and water-cooled condensers, feedwater heaters and nuclear plant heat exchangers continued apace in 2018.

To strengthen its corporate governance in proportion to its growing breadth of operations, the Company named two new members to its Executive Committee; they are Ms. Pamela Cowan and Dr. Richard Springman (both pictured below).

Holtec's 21-year veteran, Ms. Joy Russell was promoted to Senior Vice President of Business Development and Communications (see photo below). The momentous work of creating a robust digital eco-system to power the Company's growth accelerated in 2018 with its prime mover, Mr. Alok Ranjan, (pictured below) was fittingly honored as "Holtec Fellow-2018" (the honor bestowed on one outstanding Holtec associate at each year-end).



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Ms. Pamela Cowan, Senior Vice President and Chief Operations Officer of Holtec Decommissioning International



Dr. Richard Springman, Vice President of International Projects



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Ms. Joy Russell, Senior Vice President of Business Development and Communications



Mr. Alok Ranjan , Holtec Fellow-2018 Award Recipient



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Holtec Asia, based in Pune, India, continued to grow in human resources and industry esteem adding over 30 engineers to its staff and providing air-cooled condensers to numerous Clients from its manufacturing plant in Dahej (Gujarat, India). Holtec Ukraine, based in Kiev, continues to develop as a major technology center for the Company with expertise in nuclear sciences and thermal-hydraulics. Holtec's joint venture in South Africa, Holtec Africa, continues to grow with new orders in the fossil power sector and site services for the nuclear industry, including a team of fuel handlers. Sizlon Limited, our U.K. subsidiary, continues to serve EDF Energy with distinction. Holtec has also established a new operations center this past year in South America, Holtec do Brasil, to serve Eletronuclear with expectations to expand into the broader power markets in 2019.

From all Holtec International associates around the globe, we wish you, our valued stakeholders, a safe, healthy and prosperous 2019.

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CERTIFICATE OF SERVICE

I hereby certify that on February 6, 2019, MOTION BY PETITIONERS BEYOND NUCLEAR AND FASKEN TO AMEND THEIR CONTENTIONS REGARDING FEDERAL OWNERSHIP OF SPENT FUEL TO ADDRESS HOLTEC INTERNATIONAL'S REVISED LICENSE APPLICATION was posted on the NRC's Electronic Information Exchange System.

____/signed electronically by/___ Diane Curran Harmon, Curran, Spielberg, & Eisenberg, L.L.P. 1725 DeSales Street N.W., Suite 500 Washington, D.C. 20036 240-393-9285 dcurran@harmoncurran.com