HOLTEC INTERNATIONAL

Holtec Center, One Holtec Drive, Marlton, NJ 08053
Telephone (856) 797-0900
Fax (856) 797-0909

January 14, 2021

Mayor Theresa Knickerbocker
Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mayor Knickerbocker,

Attached are Holtec's responses to the additional questions asked at the Indian Point Community Advisory Panel meeting held on December 10, 2020. We appreciated the opportunity to present at the meeting as well as the opportunity to provide additional information through these responses.

If you need any additional support, please do not hesitate to contact me.

Sincerely,

Joseph J. Delmar, Sr.
Senior Director
Gov't Affairs & Communications

Cc: Pat O'Brien, CDI
Deb Fay, Entergy

HOLTEC
DECOMMISSIONING
INTERNATIONAL

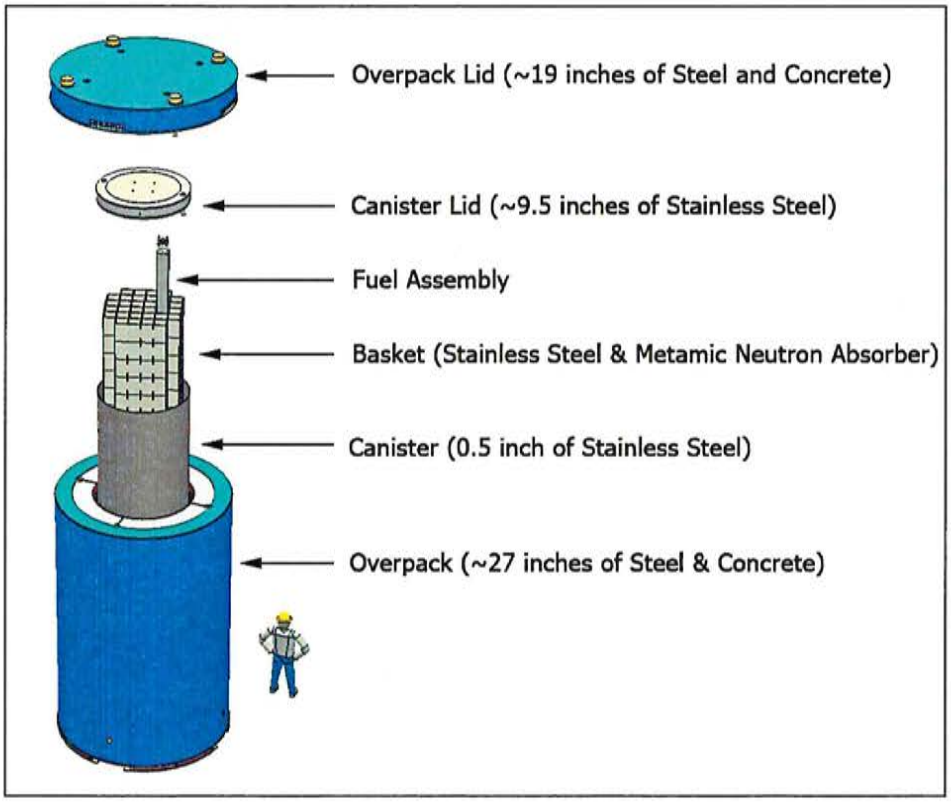
Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

Questions posed to Holtec at the 12/10/20 IPEC Community Advisory Panel

1. How thick will the walls of the dry casks be?

The Holtec's HI-STORM 100 systems consist of three main components, which includes the overpack, the Multi-Purpose Canister (MPC) and the lids.

a. Overpack – 27 ¾"
   i. Concrete – 27"
   ii. Exterior Steel Surround – ¾"
b. Multi-Purpose Canister (MPC) – ½" Stainless Steel
   i. This holds the spent fuel inside a basket of stainless steel and a Metamic Neutron absorber.
c. MPC Lid – 9.5" Stainless Steel
d. Overpack Lid – 19" Steel and Concrete



2. How long do the spent fuel rods have to stay in pools before transported to dry cask? You indicated earlier that the process would be completed in 2024. I was not aware this could be done in less than 3 years.

Advances in technology in the industry have shortened the time required for fuel to be stored in the spent fuel pool after leaving the reactor. Advances include the use of new innovative materials used in the construction of the fuel assembly baskets and MPCs.

HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

As an example, our Pilgrim facility in Massachusetts closed in May of 2019, with all fuel removed from the reactor and placed into the pool by mid-June 2019. With the continued use of innovative technologies, Pilgrim will have moved all fuel from the pool and placed on the pad by January 2022.

3. **Does the overpack become radioactive over time?**

   As indicated in the Safety Evaluation Report, the overpack is designed to become slightly radioactive over time. Although the overpack does become slightly radioactive over time, work activities around an overpack are able to be performed safely with no additional protective measures needed to be taken by personnel.

4. **Could please make the EPRI study available?**

   Please see the link below.

   http://www.safesecurevital.com/pdf/EPRI_Nuclear_Plant_Structural_Study_2002.pdf

5. **What is the process to check and ensure the integrity of these casks over time?**

   As part of Holtec's robust aging management program, there are regularly planned inspections of canisters that will examine the entire surface of the canister. If these inspections find any deficiency with the canister, repacking would occur well in advanced of any deficiencies developing into a leak.

6. **What are the checks and balances for oversight of this management and storage?**

   The NRC, as an independent regulator, would act as the check and balance to the robust aging management program Holtec will have in place at IPEC to maintain integrity of the casks.

7. **What are the safety precautions that are being implemented while the spent fuel is still in the pools and during transfer to the casks?**

   Safety is our number #1 priority at Holtec.

   The process of moving and storing spent nuclear fuel is one that follows rigorous processes and procedures that Holtec has been implementing for more than 30 years. There are multiple back-up systems, including redundant pumps and back-up power supplies, that are put into place to ensure the fuel in the pool remains cool for the needed time until it is safely transferred, underwater, into the MPC before being vacuum dried, welded, backfilled with an inert gas, and loaded into an overpack and safely moved to the ISFSI pad.

8. **How long is the canister and overpack expected to last? How long does the canister last? 1000 years 100 years? What is the life expectance of the Cask?**

   The life expectancy of the stainless-steel canister, which is the primary containment of the spent nuclear fuel, varies based on the environment. However, conservative estimates put the life

HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

expectancy of the canister at hundreds of years given the system is both robust and has no active components.

Initially, the NRC licenses each system for a 20-year period with the ability, based on aging management program and inspection, to renew the license for an additional 40-years. This renewal process goes through extensive review and inspection.

9. What is the longest any Holtec cannister has ever been in long term storage?

Twenty years.

10. No systems ever leaked - but over what time frame?

Twenty years.

11. Can you open the casks for inspection once it is welded or bolted?

Yes, Holtec's overpack can be opened and are opened as part of the aging management program to inspect the MPC.

12. I am under the impression 32 spent fuel rods are in an assembly and one assembly per MPC. Is that true?

To clarify, 32 assemblies of IPEC's fuel can fit in each MPC. Each assembly is made up of fuel rods, and each rod contains uranium-oxide fuel pellets. In the IPEC fuel, there are 225 rods per assembly. Other plants have different fuel designs; for example, Pilgrim's fuel can fit 68 assemblies per MPC.

13. Should something go wrong how is the canister removed from the overpack and replaced?

In the highly unlikely event that a multi-purpose canister (MPC), protected by an overpack with 27 inches of steel and concrete surrounding the MPC were to leak, the temporary solution would be to place the MPC in a HI-STAR 100 transportation overpack.

Because no such leak has ever occurred from a Holtec MPC, with 20 years of system usage, as the licensed owner of the system, as well as the manufacturer of the system, we would work to bring the canister back into the required compliance under NRC regulations. As always, our priority remains on the safe, secure storage of all spent fuel in our systems and pride ourselves on the innovations Holtec has brought to the industry regarding fuel storage.

14. Is fuel under pressure in the container?

The MPC, once loaded underwater, is drained, vacuum dried and backfilled with an inert gas, which is helium. The pressure is about 100 psi.

HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

15. Are you saying there is no monitoring system for the Holtec cannisters? How can you predict what kind of monitoring they may need over time? Why don't you monitor the air leaving the casks? (slide 21)

Based on the welded design concept and the way the canisters are manufactured, both of which are reviewed and approved by the NRC, and based on research performed by the National Laboratories per the NRC's request, the NRC has concluded that there are no known or expected failure mechanisms for canisters, at least for the first 20 years of operation. Specifically, the long-term degradation mechanism for metals, namely corrosion, was at the center of these investigations, and corrosion effects are very slow processes, too slow to require continuous monitoring on an ongoing basis.

The casks are cooled by naturally circulated air that enter the overpacks through vents at the bottom and exit out the top. The vents are monitored for obstructions to ensure the flow of air is not blocked or inhibited.

16. What was your longest storage period for which inspection was negative? How many negative inspections do you need for statistical confidence?

As part of the 20-year license, canisters are inspected to ensure no indication of degradation of the canister. Ongoing monitoring of the canisters are not based on a statistical approach, but is based on the design and manufacturing specifications of the canisters, where 100% of the enclosure is verified, and the principal research in the possible degradation of the chosen material. Please also see response to Question 15.

17. What entity is responsible for the aging management program inspections?

The owner/license-holder of the ISFSI will be responsible for the aging management program and the inspections, and this is performed under the regulatory jurisdiction of the NRC.

18. Have you taken into account the several gas lines running alongside IP? Are the canister's robust enough to withstand a pipeline fire?

Yes, as part of Holtec's proposed decommissioning activities, Holtec has considered the impacts from those activities. In the event that the remediation requires clean-up in the areas adjacent to the utilities, we will coordinate with the relevant stakeholders to ensure the work is performed in a manner that is safe and in compliance with all requirements.

Furthermore, all decommissioning activities will be carried out under controlled work processes and procedures that will ensure no vital systems, structures or components at the site (such as gas lines and power transmission lines) are damaged or their functionality compromised. In addition, the location of the IPEC ISFSI pad is not located close to the pipelines on site. The casks are designed and built to resist multiple beyond design basis events including fire, earthquakes, projectiles, tornadoes, floods, temperature extremes and other natural and manmade scenarios.

19. Is it possible to obtain remotely real-time data of radioactivity, pressure, and temperature of the casks?

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

For the inside of the canister, we cannot get data on pressure and temperature at this time. Some companies are trying to develop tools to do so.

20. Can you identify a highway itinerary or rail connection that is available to get one of your approved storage cannisters to New Mexico?

Similar to how the Federal Government and the Military currently transports spent nuclear fuel around the county, there are a number of factors including the safety and security of the transportation. At this time, it is too soon to speak directly to the transportation to the site.

21. Does the money needed for transporting the dry casks coming from the decommissioning fund? Is that part of the financial plan?

The money needed for transporting the dry casks to an offsite permanent or interim storage facility does not come from the decommissioning trust fund. Transportation would be funded directly by the Department of Energy or by Holtec, which would then seek reimbursement from the DOE.

22. The site has radioactive ground water how will you repurpose the site without cleaning that up.

Site remediation and clean-up are cornerstones of the decommissioning project. We will perform extensive site characterization, based on historical data from Entergy and previous owners, as well as address any information gaps to ensure we identify and remediate all hazards according to state and federal regulations. This characterization and clean-up process will continue for the entirety of the project to meet those requirements to allow for partial site release (everything but the spent fuel pad) and site reuse.

23. I would like to make a comment regarding the partnership our international union has with Holtec International to perform decommissioning all across the country. This partnership has been unwavering, providing hundreds of good paying middle-class jobs in NY

Holtec will retain an appropriate number of skilled Indian Point employees and will honor the existing collective bargaining agreements.

Holtec is proud to have National Labor Agreements with the Laborers' International Union of North America, the International Union of Operating Engineers and the International Brotherhood of Electrical Workers. In addition, decommissioning work will be supported by skilled labor through the local union halls.

Furthermore, as part of the NLA, there is a training option for decommissioning team members to become apprentices and join the unions. In addition, there is a Specialty Services Contract with United Brotherhood of Carpenters to represent radiation protection workers supporting decommissioning work.

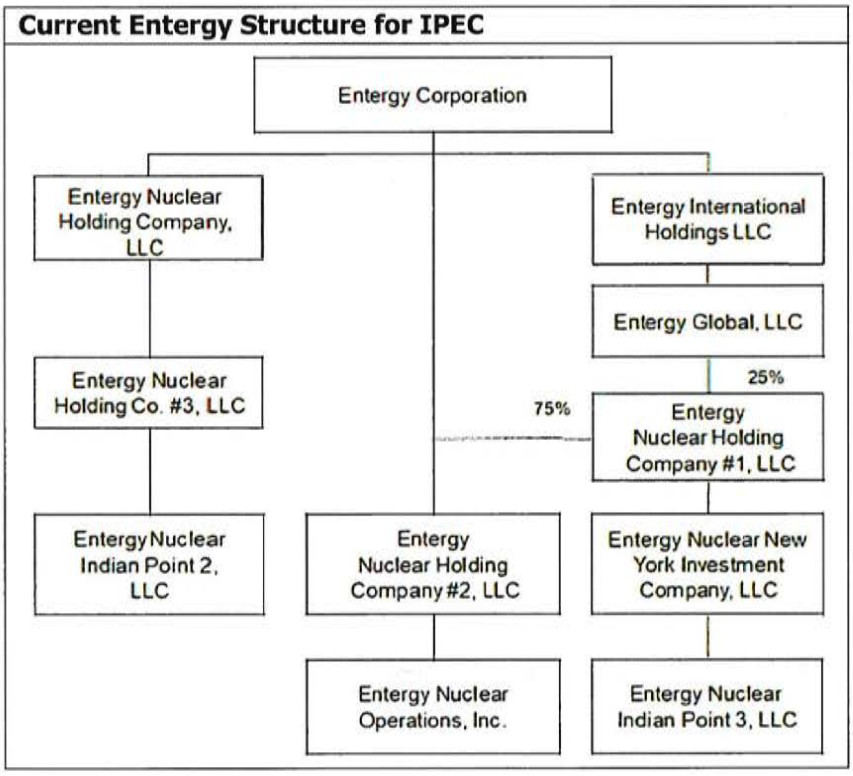
HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

24. The Nuclear Waste Policy Act does not allow Interim Storage until a permanent repository is available. There are serious environmental justice issues related to CIS. There are also very serious issues related to transportation, including that transportation infrastructure is not designed for this weight. Centralized Interim Storage is currently forbidden by law until a permanent storage is available. NRC approval of a license does not change the law. Court cases are in progress. about the approval process. The Governor of NM opposes this project as do many who live in the region as shown by the last NRC hearing. The Navaho claim ownership of the property. All have promised court action. How therefore can you claim that casks may be delivered to NM in 2021?

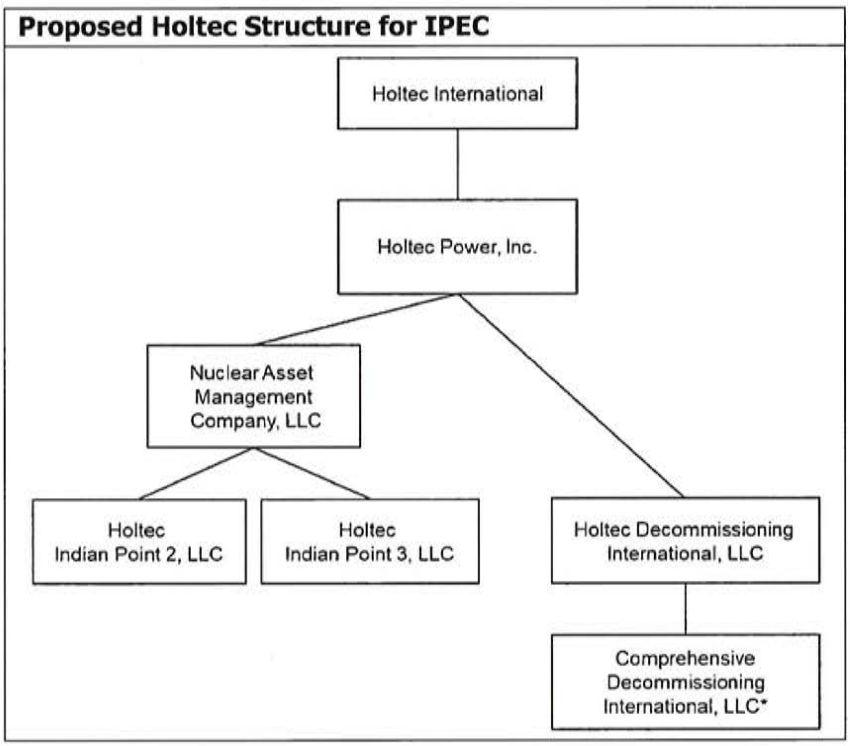
The property where we are proposing to build the HI-STORE facility is owned by the Eddy-Lea Energy Alliance (ELEA). Holtec was invited to respond to a request for proposals by the ELEA and did so. We have never claimed that the proposed facility in New Mexico could accept fuel in 2021. The earliest proposed timeline, provided all proper approvals are granted and construction is completed, that fuel could be transferred to the site would be 2024/2025 timeframe.

25. Can you review the ownership structure and financial position of Holtec (in terms of leverage)?



HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909



26. Also, what is the relationship (if any) with Eos Energy the proposed SPAC merger?

Please see the link below to Holtec's partnership with Eos Energy Storage (now Eos Energy Enterprises).

Holtec International and Eos Energy Storage, LLC Team up to Establish HI-POWER, a Multi-Gigawatt Aqueous Battery Manufacturing Facility | Holtec International

27. Is there enough money to do all you presented?

We are confident the trust funds are sufficient to safely complete decommissioning. Holtec filed its detailed plans with the NRC late last year, called a Post-Shutdown Decommissioning Activities Report and a Decommissioning Cost Estimate. The Company's analysis contains detailed information and includes how much it would cost to safely decommission and decontaminate Indian Point and restore the site to the NRC's and State of New York regulatory standards. The Decommissioning Cost Estimate also includes a contingency for unexpected costs or increases in the assumed cost rates.

The NRC oversees all aspects of decommissioning, including reviews of disbursements from the nuclear decommissioning trust fund to ensure regulatory compliance. Under NRC regulations, licensees must show adequate funding assurance for decommissioning. In the unlikely event that

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

a funding shortfall is projected, Holtec would have to present to the NRC acceptable alternatives or additional funding assurance for decommissioning. New Yorke residents would not have to pay.

28. Concrete is corrosive. Why would not it corrode the inner cannisters when they are scratched during loading (like at San Onofre)

As mentioned during the meeting, the systems at IPEC and San Onofre are different (HI-STORM 100 vs. UMAX).

The San Onofre system places the MPC directly into an underground vault, while the MPC at IPEC goes into the overpack, which is steel on the inside and outside, and contains the concrete between the steel plates, hence the canisters are not in contact with the concrete. Additionally, the inner canisters are constructed of stainless steel, which is not corrosive and is not expected to degrade.

29. What kind of technology do you have to filter out radioactive isotopes/material (including tritium) from the contaminated water (groundwater)?

Like Entergy, we do not filter groundwater and will monitor it to understand the characteristics of legacy issues as well as ensure that there are no new leaks or spills. Before the site can be released so it can be repurposed, Holtec will need to comply with any federal and state environmental requirements.

30. Welds are one of the areas that fail most frequently whether in pipelines or in commercial or military ships. Why isn't there continual monitoring of the welds?

There is a combination of important aspects that relate to the welds of the canisters: a) They are designed to the highest nuclear standards, which means they are significantly overdesigned and would need a significantly larger load than ever expected before they would fail, and b) they operate under a practically constant load over time, not under ever changing or cyclic conditions that may result in weakening the weld to failure.

31. Can you identify the regulator responsible for overseeing Holtec by country/region?

United States- Nuclear Regulatory Commission, NRC
China – National Nuclear Safety Administration (NNSA)
South Korea – Korea Institute of Safety
Mexico – CNSNS (Comision Nacional de Seguridad Nuclear y Salvaguardias)
Brazil – Comissao Nacional de Energia Nuclear (CNEN)
South Africa – National Nuclear Regulator
Spain – CSN (Consejo de Seguridad Nuclear)
Slovenia – Slovenian Nuclear Safety Authority
Switzerland – Eidgenoessisches Nuclearsicherheitsinspektorat, ENSI
Belgium – FANC (Federal Agency for Nuclear Control)

HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

Ukraine – State Nuclear Regulatory Inspectorate of Ukraine (SNRIU)
United Kingdom – Office for Nuclear Regulation (ONR)
Sweden – Swedish Radiation Safety Authority (SSM)

32. Is the company subject to sanctions or prevented from operating in certain jurisdictions where it has previously operated?

Holtec is not subject to sanctions or prevented from operating in any jurisdiction where we operate currently or have operated. In October 2010, the Tennessee Valley Authority (TVA) sent Holtec a "Notice of Proposed Debarment" related to the alleged misconduct of a TVA employee.

In December 2010, following a temporary debarment, Holtec was cleared of any wrongdoing and TVA restored full business relationships with Holtec.

Furthermore, on October 1, 2012, TVA awarding Holtec a ten (10) year contract valued at approximately $300 Million. TVA remains a valued client of Holtec today.

33. Please discuss how long the spent fuel is radioactive.

Spent fuel is radioactive for approximately 10,000 years.

34. Wouldn't it make a lot of sense to cover the storage area with a metal building to further protect the casks from snow, wind, sun and rain? I suspect that alone could substantially prolong the life of the casks.

The outsides of the storage overpacks are made from ¾ inch of steel protected by an industrial epoxy coating and would therefore be much stronger and more resistant than a typical metal building. Weather effects such as snow, wind, sun and rain will have little, if any, effect on the cask itself. In addition, a metal building would slightly impair the cooling airflow around the casks, and, more importantly, under conditions such as earthquakes, could collapse onto the casks, which is not desirable.

35. Does Holtec disclose its audited financial statements?

Holtec is required to disclose audited financial statements as part of the NRC license transfer process. This process requires the NRC to evaluate and determine the financial strength and technical abilities of the purchasing companies and with IPEC, as previously occurred at Pilgrim and Oyster Creek, the NRC found that Holtec has the technical and financial ability to perform this project as outlined in the proposed Decommissioning Cost Estimate.

36. How long will you keep the high-burnup fuel in the pools?

Fuel of all burnups are processed together for optimized loading, so higher burned fuel is neither loaded earlier nor later than any other fuel.

HOLTEC
DECOMMISSIONING
INTERNATIONAL

Krishna P. Singh Technology Campus, 1 Holtec Blvd., Camden, NJ 08104
Telephone (856) 797-0900
Fax (856) 797-0909

37. Environmental remediation and oversight, who will take responsibility for this? The points made in the NYS Risk Assessment of the AIM pipeline next to Indian Point? The financial structure of Holtec (based on contracts for future work? I run a business and usually this kind of work requires a performance bond...) Many more questions too.

Holtec, through Holtec Decommissioning International as the licensee and CDI as the general decommissioning contractor, would assume responsibility to remediate the site to state and federal requirements.

38. Will NRC act on CIS application at your target deadline or will it approve it? How do you know it will approve it?

The Nuclear Regulatory Commission's current schedule indicates that NRC staff expects to complete its final safety evaluation report (SER) by May 2021 and the final Environmental Impact Statement by July 2021. The NRC's licensing decision is anticipated after these final documents are published.

39. What are the economics to Entergy to unload the decommissioning to Holtec?

By selling these plants for decommissioning, Entergy continues to execute its strategy to exit merchant wholesale power markets and move to a pure play utility. Additionally, Entergy's expertise is in operating nuclear power plants, while Holtec and CDI are experts in decommissioning them.

This transaction is similar to Entergy's decision announced in 2018 to sell Pilgrim and Palisades to Holtec for decommissioning, which would lead a team of decommissioning experts in the timely decontamination and dismantlement of the plant and remediation of the site.

For a nominal fee, Holtec is assuming the risk of decommissioning from Entergy while acquiring the asset, including property and the decommissioning trust fund.

40. Will you be factoring in funds to cover radioactive cleanup costs for trucking accidents?

All materials and waste type will be prepared and transported in accordance with both New York and United States Department of Transportation requirements. These requirements ensure that any hazardous materials are controlled and monitored during transport, designated emergency procedures are in place for response to accidents and any high hazard materials have containers designed to prevent release in accident conditions.