

Meeting Minutes

Yankee Rowe Spent Fuel Storage & Removal Community Advisory Board November 1, 2018

The Yankee Rowe Spent Fuel Storage & Removal Community Advisory Board held their Annual meeting at the Golden Eagle Restaurant in Clarksburg, MA on Thursday November 1, 2018.

Attendees: Lenny Laffond (Town of Rowe), Carla Davis-Little (Town of Monroe), Art Schwenger (Franklin County Chamber of Commerce), Dawn Peters (Town of Heath), Bill LeQuier (Town of Readsboro), Alan Twitchell (Town of Whitingham), Anne Skinner (Resigning as Williamstown Representative) Jason Hoch (New Representative for Town of Williamstown) and Jacqueline Cashin (Town of Charlemont).

YAEC Representatives: Shae Hemingway, Matt Marston, Robert Capstick, Dave Yorke, Kevin Shea and Karen Sucharzewski.

The meeting was called to order at 6:00 p.m. by Lenny Laffond, with the introduction of the current Acting ISFSI Manager Shae Hemingway and also Jason Hoch as the new Representative for the Town of Williamstown as Anne Skinner has announced her resignation.

Minutes of the November 2017 meeting were approved as written.

ISFSI Status Report was presented by Shae Hemingway, (Acting ISFSI Manager).

Shae's presentation is attached.

Regional and Federal Nuclear Waste Issue Update Report was presented by Robert Capstick (Public/Government Affairs Manager).

Robert Capstick's presentation is attached.

CAB New Business: Discussion was held regarding a Site tour for members, Jacqueline Cashin (Charlemont) and Carla Davis-Little (Monroe). Date of tour to be determined.

The next CAB meeting is scheduled for Thursday, November 7th, 2019 at the Golden Eagle Restaurant.

The Meeting was adjourned @ 7:00 p.m.
For more information, contact Bryan Lovin at 413-424-5261 X-303 or via email at blovin@3yankees.com.

ISFSI Manager
Presentation

Shae Hemingway

YANKEE ROWE SPENT FUEL STORAGE & REMOVAL COMMUNITY ADVISORY
BOARD UPDATE – NOVEMBER 1, 2018

ISFSI Site Update

Change in ISFSI Management

- At the beginning of September Brian Smith retired his position as the ISFSI Manager for Yankee Atomic. Currently I am filling for the position as the site manager. We are in the process of looking for a full-time replacement for the position. Upon any changes I am sure we will send you an update.

Industrial Safety

- There have been no Lost Time Accidents, OSHA Recordable Injuries. A first aid case was documented on 7/21/18 through our Corrective Action Program. An officer accidentally cut his finger while removing a frayed piece of cloth from his clothing using a pocket knife. In this case a band aid was needed thus becoming a first aid incident.

ISFSI Operations

- ISFSI Operations have been normal.
- This year Yankee Atomic had a project to upgrade some Security equipment to address obsolescence. Some of the original ISFSI security equipment, which was installed during initial ISFSI construction, is becoming obsolete and replacement parts are increasingly difficult to obtain. In 2018, all non-regulatory Security cameras were changed out. Work control documentation for the installation has been closed and this project is considered completed.
- A second project for 2018 was to assess the communications issue with the State Police, develop a path forward, and procure the necessary equipment. An assessment was performed earlier this year with the assistance of the MSP (Massachusetts State Police) Communications Team. An estimate for the scope and cost of the necessary equipment and materials is in progress. Site personnel are drafting a scope of work for MSP review and agreement. The purchase list is being modified by the MSP to address obsolescence identified with components originally identified for purchase. We are currently waiting for the final documentation in order to complete our commitment to the project this year and will be looking to perform the installation of the purchased equipment in the spring of 2019.

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BOARD UPDATE – NOVEMBER 1, 2018

Quality Assurance Audit/NRC Site Inspections

- Biennially we perform Quality Assurance audits as well as NRC Security and Safety inspections. Our QA audit was performed over the course of several weeks in March and April. We had favorable results with no deficiencies noted. Observations and areas of concern noted in the audit were documented through our Corrective Actions process.
- The NRC Security and Safety inspections took place at the end of April and the beginning of May. During the exit meetings the NRC indicated that all aspects of the security and operations inspections were satisfactory. Additionally, on the final day of the inspection a non-compliance associated with “compensatory measures” and “reportability” was self-identified and reported to the NRC. The event was subsequently reviewed by the NRC and was characterized as “minor” and thus was not in the report, nor did it result in a notice of violation. An Apparent Cause Evaluation for both of the identified issues has been performed and documented through our Corrective Actions process.

Biennial Emergency Drill

- The biennial Emergency Plan Drill took place on September 12th and 13th. The fire/medical portion of the drill was performed on the afternoon of September 12th. Results were satisfactory however elements of the drill showed that we have some areas for improvement relative to propane spill evacuation guidance. The Security/Radiological portion of the drill was performed on the morning of the 13th. This drill was very successful and there with no negatives found.

Site Safety Celebration

- A site celebration commemorating 250,000 hours worked without a Lost Time Accident (LTA) was performed on September 5th. A group luncheon and gifts were provided to the staff members as a show of appreciation for accomplishment of the safety achievement.

Robert Capstick
Public/Government Affairs Manager
Presentation

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BOARD UPDATE
NOVEMBER 1, 2018

Federal Nuclear Waste Issues Update

Administration:

Department of Energy

As reported in May, the Northeast High-Level Radioactive Waste Transportation Task Force sent a letter to the DOE in January objecting to the DOE's Office of Nuclear Energy notice that planning activities to prepare for the eventual shipment of commercial spent nuclear fuel were being curtailed due to financial and national policy uncertainty. The three other State Regional Groups (SRGs) and the Tribal Radioactive Materials Transportation Committee (TRMTC) sent similar letters. On April 16th, the Nuclear Waste Strategy Coalition sent a letter in support of letters by the SRGs and TRMTC to Secretary Perry requesting reconsideration of DOE's decision. DOE's July 6th reply to the NWSC reiterated that position stating, "Once there is a more defined path forward for transporting SNF and HLW, additional meetings for collaborative planning with states and tribes and DOE participation in regional transportation meetings will be considered."

Recently, however, DOE indicated to the SRGs and TRMTC that it will resume planning activities in 2019 such as participating in meetings with the SRGs and TRMTC and the Rail Routing Working Group. The State Regional Groups coordinate oversight of the transportation of high-level radioactive waste with the DOE. Concerns remain that if DOE funding is not increased under the Nuclear Waste Policy Act Section 180(c) requirements, it will result in a situation where the states will not be in a position to adequately support the safe transportation of commercial SNF/HLW when the time comes. The proposed Texas and New Mexico CIS facilities could be ready to accept SNF in 3-5 years according to their project schedules.

The DOE continues to work on the design, analysis, and proto type fabrication of the buffer and railcars that will be used to transport SNF and that meet performance specifications for trains used to carry high-level radioactive material. DOE has completed the Atlas Railcar Project Phase 2 that includes the preliminary design of the rail & buffer cars to meet American Association of Railroad standards. Phase 3 will involve fabrication of one rail and two buffer cars. Phases 4 & 5 the rail/buffer cars will involve testing. The Atlas Railcar Project is scheduled to be complete in 2022.

Congress

Nuclear Waste Program Funding

The House and Senate conference committee reached agreement on the Energy & Water Development Appropriations bill in early September and it was subsequently passed and signed by the President. The continuing House-Senate impasse over funding for Yucca Mountain versus a Pilot Consolidated Interim Storage program resulted in funding for neither in the final bill.

Two items of note are that there is \$22.5 M in the bill for Integrated Waste Management System activates – with no direction on how those funds should be spent. The other item has to do with a “Nuclear Power Plant Closings” section. It directs the DOE to submit to the Committees on Appropriations of both Houses of Congress not later than 180 days after the enactment of this Act a study on existing public and private resources and funding for which municipalities where a nuclear power plant is decommissioned, in the process of decommissioning, or plans to shut down within 3 years of enactment of this Act and contains nuclear waste within its boundaries may be eligible.

Nuclear Waste Legislation

The Nuclear Waste Policy Act of 2018 (HR 3053) bill passed the House back in June (340 to 72) was referred to the Senate Environment and Public Works Committee. The final bill had several changes to the Committee bill that involved the removal of the mandatory funding provisions; however, there were no significant changes to the items that Yankee and the Decommissioning Plant Coalition focused on throughout the process (such as consolidated interim storage provisions). Wayne Norton, as Chair of the Decommissioning Plant Coalition, signed on to a joint organization letter with the Nuclear Waste Strategy Coalition and other organizations to House members in support of the legislation and Congressman Neal voted for the bill.

The bill has not had a hearing scheduled by the Senate Committee and there likely won't be a hearing on it this session - again as a result of the Majority Leader's support of Nevada Senator Heller's opposition to the bill's Yucca Mountain provisions pending his November re-election results.

The Senate Energy Committee and the Energy & Water Development Appropriations Committee leaders have taken no action yet to introduce a bi-partisan comprehensive nuclear waste reform bill along the lines of what they introduced in the past two sessions.

In September, the House passed on a voice vote the “Nuclear Utilization of Keynote Energy Act” (H 1320) that would implement a new NRC fee structure, provide greater certainty in the licensing process for advanced nuclear reactors, and require the NRC to report to Congress on best decommissioning practices regarding local community advisory panels and public engagement throughout all phases of decommissioning. The legislation faces an uncertain future in the Senate where a similar bill, the “Nuclear Energy Innovation and Modernization Act” (Senate 512) was reported favorably out of the Environment and Public Works Committee in May 2017 but thus far has not been acted on further

Nuclear Regulatory Commission

Storage/Disposal Initiatives

Texas: The Orano USA (formerly Areva Nuclear Materials) and WCS joint venture (known as Interim Storage Partners or ISP) revised CIS license application was submitted to the NRC June 8, 2018 and was accepted by the NRC for review in August. The NRC staff will consider all comments previously received on the scope of the environmental review and in a notice published September 4th in the Federal Register, the NRC requested additional public comment through November 19 on environmental issues to be considered in its environmental impact statement. In separate notices published in the Federal Register in August the NRC also announced an opportunity to request a hearing through October 29th. The NRC staff stated that they expect to complete the safety, security, and environmental reviews in the summer of 2020.

New Mexico: The NRC is currently reviewing the license application formally docketed in March by Holtec Inc. to construct and operate a consolidated interim storage facility for spent fuel from commercial nuclear power reactors in Lea County, New Mexico. Tim noted The NRC announced an opportunity for the public to request an adjudicatory hearing on Holtec's application in the July 16th Federal Register that described the requirements and procedures for filing a request for a hearing and petition to intervene. The deadline for requests was Sept. 14th and several entities petitioned to intervene.

Deep Isolation:

A startup company called Deep Isolation is proposing to use directional drilling technology to emplace spent nuclear fuel far below the earth's surface at existing plant sites with the consent of the community. As noted on their website Deep Isolation, will place nuclear waste in narrow (8-14 in diameter) horizontal drill holes. The drill holes will go down about a mile vertically and then gently turn horizontal with the waste stored in the deep horizontal section. Deep Isolation characterizes their proposal as a supplement to Yucca Mountain as not all plant sites have suitable geology and they intend to work only with communities that are interested. Deep Isolation's proposal would require a change in existing law. Deep Isolation's Nuclear Waste Innovation Act has not yet been introduced in Congress but would, "direct the U.S Nuclear Regulatory Commission (NRC) to accept licenses from private companies, and allows the US Department of Energy to engage such companies for nuclear waste isolation and disposal." They have also begun reaching out to communities with spent nuclear fuel storage sites.

NRC Site Visits

NRC Region 1 Administrator Visit

In August, the NRC Region 1 Administrator David Lew and the Region 1 Decommissioning, ISFSI, and Reactor Health Physics Branch Chief Ray Powell visited Yankee Rowe. The tour went well and the meetings involved discussions regarding site security, the decommissioning rulemaking, and included a presentation on the status of the CY ISFSI Pad Repair and the Maine Yankee VCC/TSC Inspection.

NRC Commissioner Visit

In September, NRC Commissioner David Wright accepted Wayne Norton's invitation to visit one of the 3 Yankees sites to see a stand-alone ISFSI decommissioned reactor site. He and one of his staff along with a NRC Region 1 manager toured the Maine Yankee site. That visit also went well and involved similar presentations and discussions as the Region 1 Administrator's visit.

Decommissioning Rulemaking

The Draft Rulemaking was submitted by the staff to the Commissioners in May for their review. There continues to be no set timetable for the Commissioners to take action

In June the NRC staff then issued four draft regulatory guidance documents associated with the rulemaking that in numerous instances did not align with the stated scope and intent of the rule – especially with respect to Standalone ISFSI sites such as Yankee Rowe.

The DPC sent a letter to the NRC Executive Director of Operations and Commissioners in late July that expressed our concerns with the guidance documents and Wayne Norton, as Chair of the DPC Steering Committee, and Mike Callahan met with the EDO and all five Commissioners later that week to discuss the concerns. The meetings went well and led to the interest by Commissioner Wright to visit one of the Yankee sites this fall.

DOE Spent Fuel Lawsuit Status Update

Phase IV Case

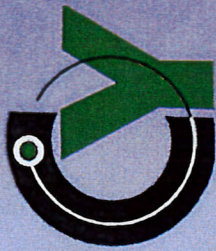
The Phase IV case was filed in May 2017 in the U.S. Court of Federal Claims and addresses damages resulting from the federal government's ongoing failure to honor its contract obligations for the 2013-2016 timeframe. In the Phase IV case the three Yankee Companies (Maine Yankee, Connecticut Yankee, and Yankee Rowe) are seeking roughly \$104.4 million dollars in damages.

Because the government is not seriously contesting approximately \$103 million of the damages at this point, the Yankee's filed a motion on July 24 for partial summary judgment on the uncontested damages. The government opposed the partial summary judgment motion and Judge Firestone has not yet ruled on the motion. Discovery in the Phase IV case is still ongoing. Judge Firestone has set aside January 29 and 30, 2019 for trial on the contested amount of damages.

NOTE: The ongoing litigation between the three Yankee companies and the Department of Energy is being conducted in phases as an earlier U.S. Federal Appeals Court decision ruled that utility companies cannot receive damage awards for costs that have not yet been incurred. As a

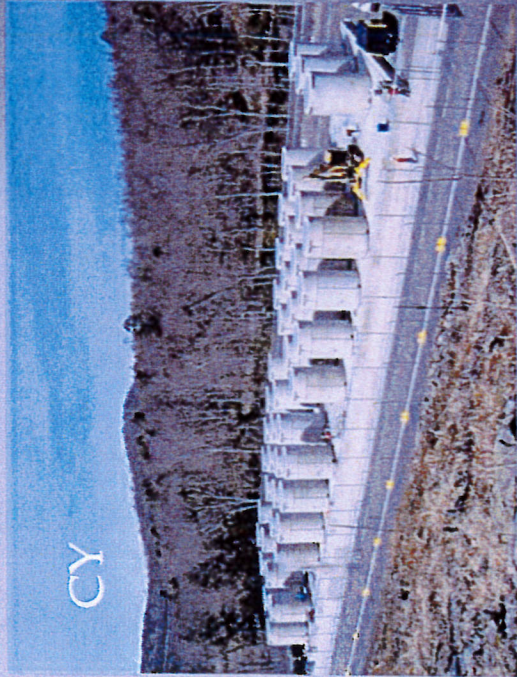
result, the three companies have, and expect to continue to litigate with the DOE every several years to request damages for costs incurred by the ratepayers for the federal government's failure to meet its statutory and contractual obligation to begin removing the SNF and GTCC waste from the sites beginning in January 1998. The total damages awarded to the 3 companies to date for the Phase I, II, and III lawsuits are \$471.8 million (\$159.6 million + \$235.4 million + \$76.8 million). These awards are paid out of the US Judgment Fund - not the Nuclear Waste Fund.

PRE-APPLICATION INSPECTION OF A NAC DRY STORAGE SYSTEM AT MAINE YANKEE



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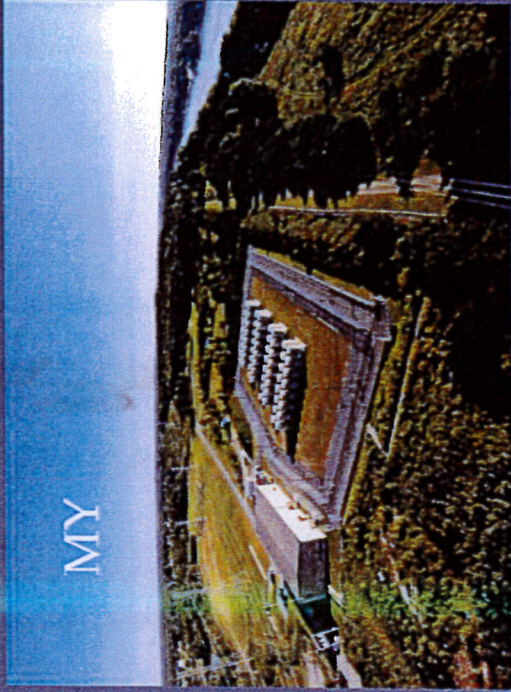
The 3 Yankees



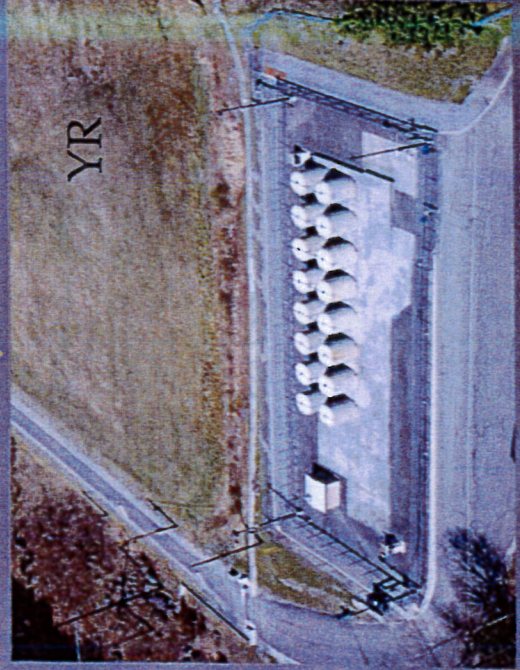
Yankee Rowe
15 Spent Fuel Dry
Casks
1 GTCC Dry Casks
NAC MPC System
CoC Expires 4/10/20



Connecticut Yankee
40 Spent Fuel Dry Casks
3 GTCC Dry Casks
NAC MPC System
CoC Expires 4/10/20



Maine Yankee
60 Spent Fuel Dry Casks
4 GTCC Dry Casks
NAC UMS System
CoC Expires 11/20/20



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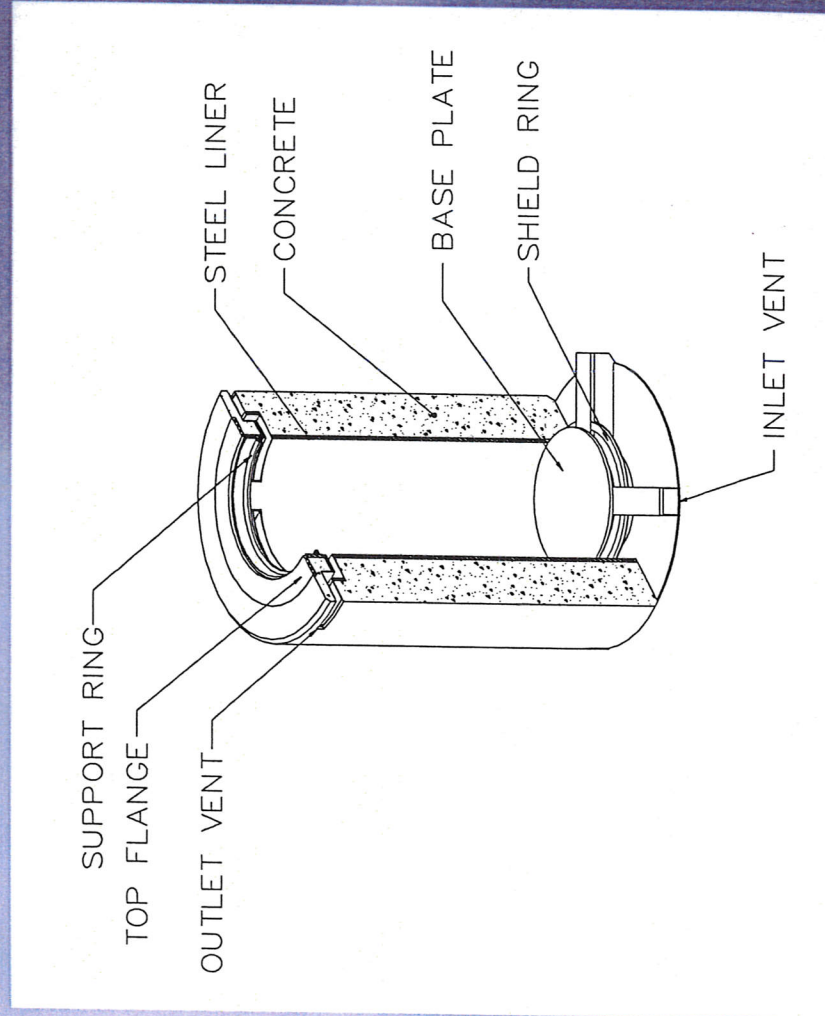
Background

During the week of July 23rd, NAC International conducted a pre-application inspection of a Maine Yankee dry storage cask/canister system to inform both the NAC UMS and MPC system license renewal applications (The NAC UMS canister system is used at MY and the NAC MPC system is used at Connecticut Yankee and Yankee Rowe).

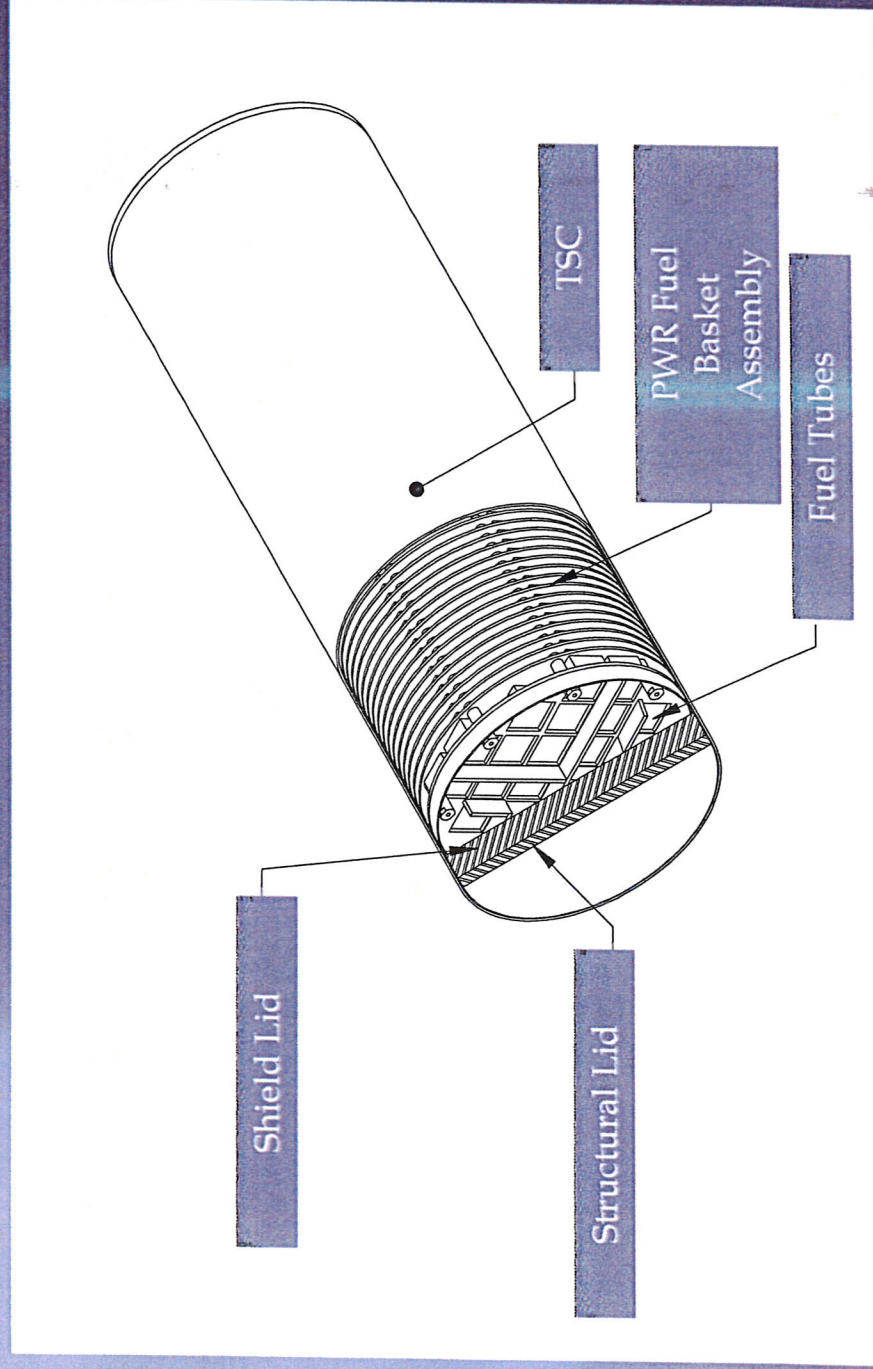
The purpose of this cask/canister inspection was to provide inspection information to support the storage system license renewal applications using the proposed extended storage aging management program for the canister and the vertical concrete cask beyond the current 20 year license period that expires in 2020.

The cask lid and the shield plug beneath it were removed to allow for inspection of the top of the canister, as well as the collection of surface samples for subsequent analysis. The robotic inspection of the spent fuel canister identified no recordable indications. There was an indication of minor coating damage in an area of the steel vertical concrete cask liner that was of no safety significance.

Typical Vertical Concrete Cask



Transportable Storage Canister for PWR Spent Fuel Basket



Setup for Pre-Application Inspection



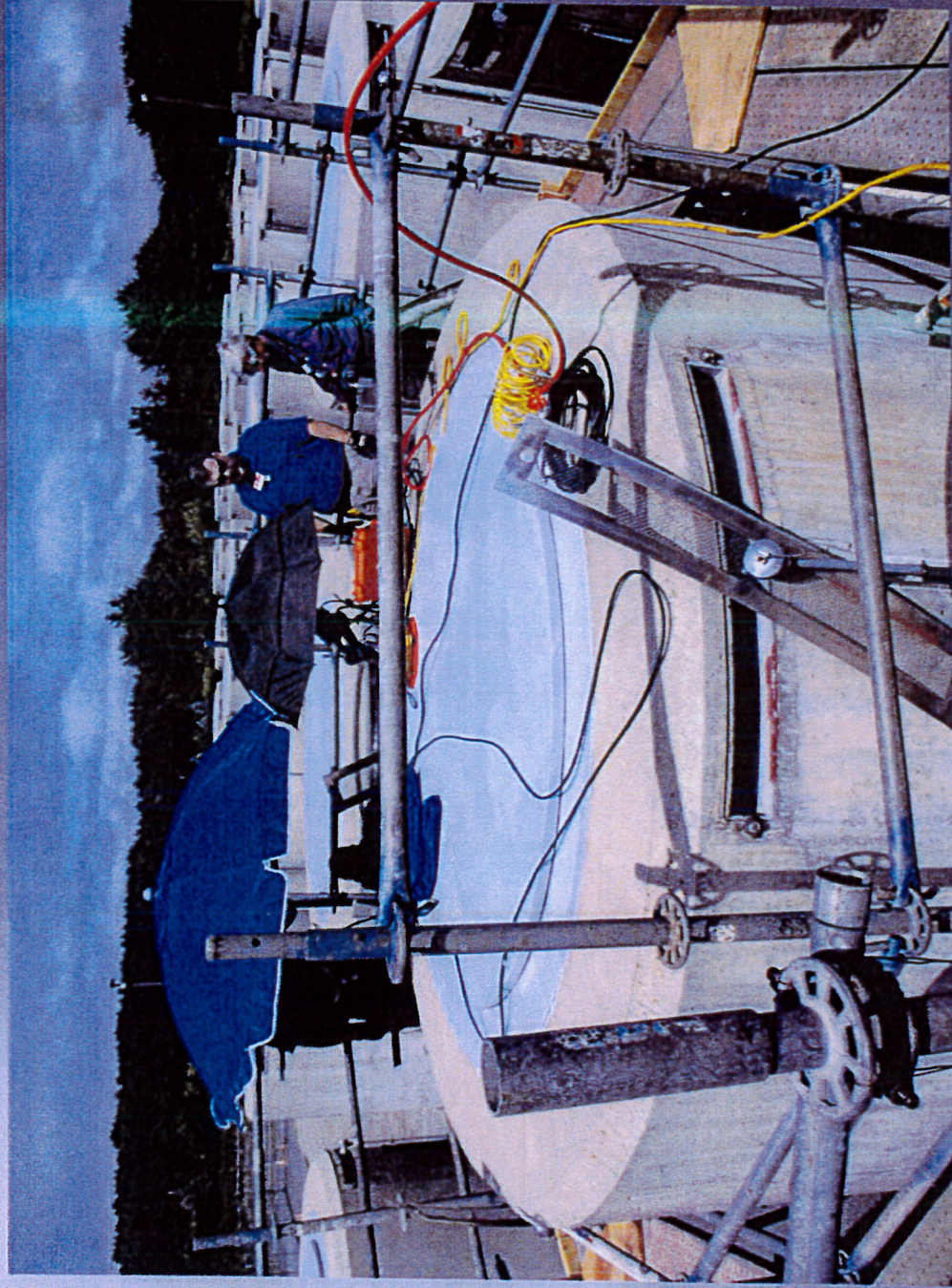
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2018 VCC Lid Off-Shield Plug On



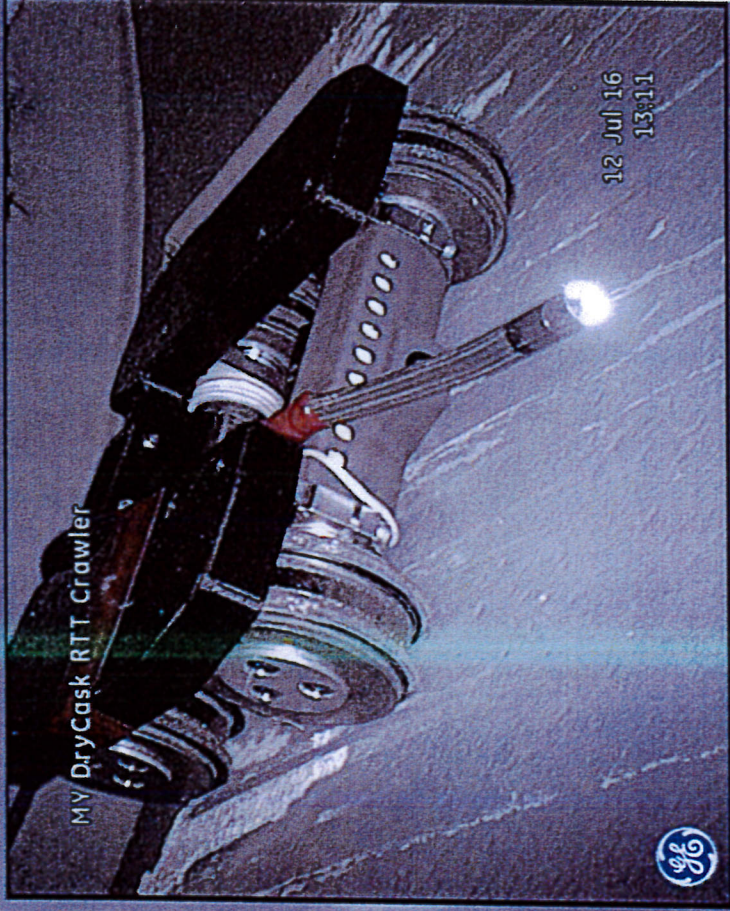
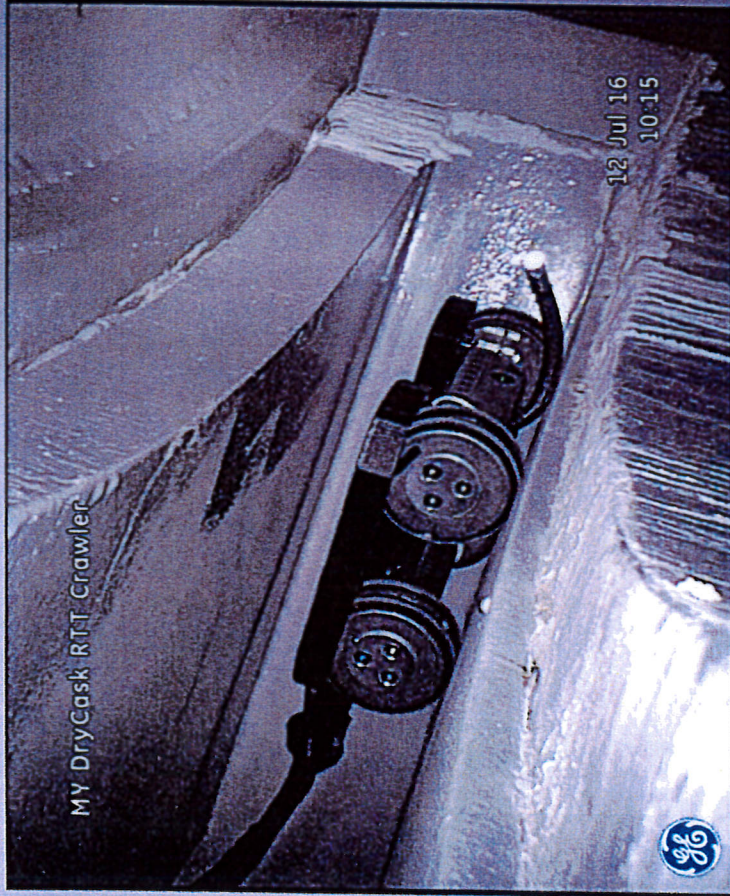
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Inspection Through the Outlet Vents



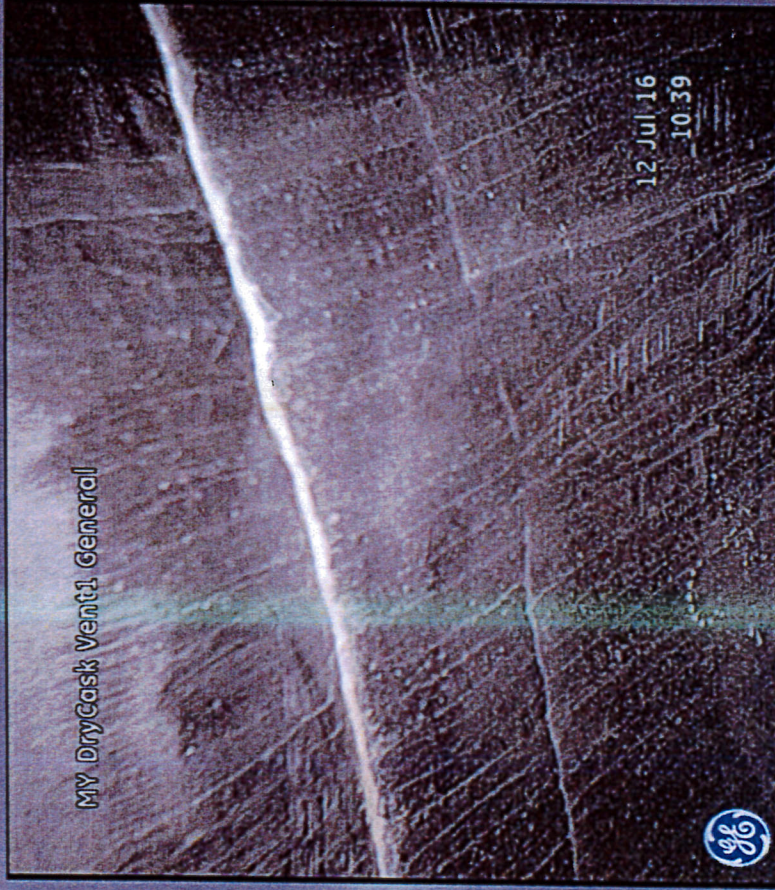
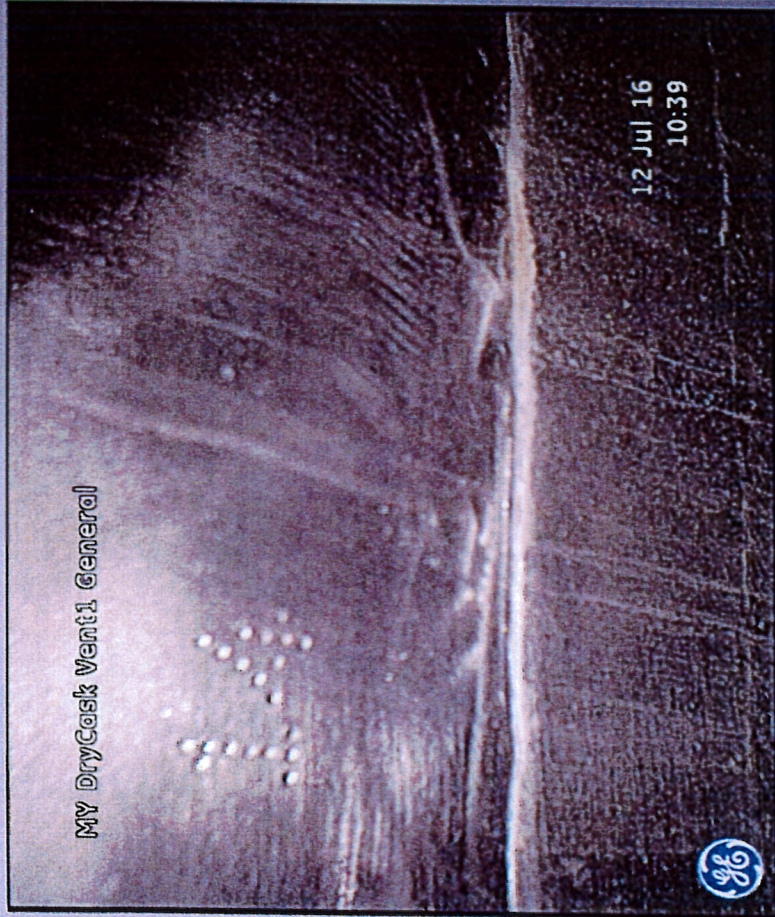
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Canister Inspection Approach



- The ROV was fitted with a boroscope camera for inspections.
- It can traverse 90° turns for navigating through the inlet and outlet vents and is driven by magnetic wheels for vertical runs on carbon steel surfaces.

Canister Surface Inspection Footage



- Left view shows manufacturer's identification number stamped on canister shell showing detail of inspection capability.
- Right view shows junction of a canister vertical and horizontal seam weld.

Summary

- No recordable indications on the canister.
- One recordable indication of coating damage on the VCC liner (because it was unusual in nature).
- Inspection coverage met the desired 80% minimum.
 - Estimated 95%+ on the shell
 - Estimated 85-90% of the shell welds and HAZ's
 - Estimated 95%+ on the VCC liner and interior surfaces
- Canister appeared to be dry on very humid, summer days.
- Plentiful dust and dirt accumulation over the 16 years of operation (The casks at Rowe also have been in service for over 16 years).