Texas Low-Level Radioactive Waste Disposal Compact Commission

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Introductions

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Decommissioning Project Status
VY Decommissioning Update

• Dry Fuel Storage Project
  – ISFSI Pad Construction
    • Construction of second pad started on March 13th
    • Second ISFSI pad was declared operational on August 14th

• Dry Fuel Loading
  – Cask loading initiated week of June 11, 2017.
  – Thirteen (13) casks have been loaded in 2017 with a total of 26 casks loaded and stored on the ISFSI pads.
  – Target all fuel transferred to the ISFSI by end of 2018, pending NRC approvals.
Completed 2\textsuperscript{nd} ISFSI Pad
Reduction of Site Protected Area

• Background
  – After all fuel is transferred to dry storage, the Protected Area (PA) will be reduced – “ISFSI PA”
  – Protected area reduced to ISFSI to safeguard dry fuel systems
  – Installation of new vehicle barrier system, perimeter and security fences, cameras, lighting, Central Alarm Station (CAS) building

• Two primary benefits of reducing PA:
  – Access to decommission areas of the site that are outside of the PA
  – Cost reductions to optimize the decommissioning trust

• Implementation is contingent on NRC approval of proposed changes to our Security Plan with a targeted completion by the end of 2018.
ISFSI Protected Area Rendering
Proposed VY Sale and Accelerated Decommissioning
Potential Sale of ENVY to NorthStar

• Sale to a specialty Demolition & Decommissioning firm

• Transaction is contingent upon a number of conditions, including:
  – Successful regulatory approval by USNRC and PUC
  – Entergy loading all spent fuel into dry casks by 2018
  – PUC adopting proposed Site Restoration Standards

• NorthStar will:
  – Provide financial commitments that will assure completion of decommissioning
  – Initiate onsite work by 2021
  – Decommission and restore nearly the entire VY site by 2030
Federal and State Approval Processes

- **Nuclear Regulatory Commission**: Federal agency that must approve transfer of the VY Station NRC operating license and transfer of control of Entergy Nuclear Vermont Yankee (ENVY) from Entergy to NorthStar
  - Will review decommissioning plan, financial assurances, technical capabilities

- **Public Utility Commission**: State agency that must approve the sale of ENVY and the transfer of the Certificate of Public Good to operate and decommission the VY Station to NorthStar
  - Will review several factors to determine if sale is in the public good
  - Will also set site restoration standards that are a material part of the transaction
In the event the proposed transaction between ENVY and NorthStar is not approved by either the USNRC or the Vermont PUC, the schedule will be as submitted in the Post Shutdown Decommissioning Activities Report (PSDAR).

<table>
<thead>
<tr>
<th>Decommissioning Activity</th>
<th>Start</th>
<th>End</th>
<th>Approximate Duration (Years)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preparations for Dismantling &amp; Decontamination (D&amp;D)</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Preparation for D&amp;D</td>
<td>2068</td>
<td>2069*</td>
<td>1.5</td>
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<tr>
<td><strong>Active D&amp;D</strong></td>
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<tr>
<td>Large Component Removal</td>
<td>2069</td>
<td>2070*</td>
<td>1.3</td>
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<tr>
<td>Plant Systems Removal &amp; Building Decontamination</td>
<td>2070</td>
<td>2073*</td>
<td>2.5</td>
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<tr>
<td>License Termination</td>
<td>2073</td>
<td>2073*</td>
<td>0.7</td>
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<tr>
<td><strong>Site Restoration</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Site Restoration</td>
<td>2073</td>
<td>2075*</td>
<td>1.5</td>
</tr>
<tr>
<td>Total – Shutdown to Completion of License Termination</td>
<td>–</td>
<td>–</td>
<td>59</td>
</tr>
</tbody>
</table>
Waste Stream Information
• Entergy maintains ownership of Vermont Yankee
  – The quantity of radioactive waste generated will be minimal.
  – Waste would be limited to a small quantity of filters and demineralizers used to process water from the spent fuel pool – approximately 400 cubic feet.
Ownership of Vermont Yankee is transferred to Northstar.

Decommissioning would commence as soon as possible.

The waste that would be sent to the compact facility would be completed within 3 to 4 years.
## Waste Stream Information

<table>
<thead>
<tr>
<th>Waste</th>
<th>Waste Class</th>
<th>Estimated Volume</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactor Vessel/components/irradiated hardware</td>
<td>Class A, B, C</td>
<td>3,000 Cu. ft</td>
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<tr>
<td>Resins</td>
<td>Class A, B, C</td>
<td>1,125 Cu. ft</td>
</tr>
<tr>
<td>Filters</td>
<td>Class A, B, C</td>
<td>375 Cu. ft</td>
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<tr>
<td>High dose rate Class A waste that cannot be disposed in the TSD Facility (&gt;75 mrem/hr on contact unshielded)</td>
<td>Class A</td>
<td>79,000 Cu. ft</td>
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