

# Vermont House and Senate Natural Resources and Energy Committees

## Vermont Yankee Decommissioning Update

February 11, 2015



# VY Current Plant Status

- ▶ Vermont Yankee (VY) ceased power operations on December 29, 2014 after 633 days of continuous power operation – a record for the VY site.
- ▶ On January 12, 2015, all nuclear fuel removed from the reactor and placed in the Spent Fuel Pool (SFP).
- ▶ VY certified to the NRC that the reactor was defueled and confirmed its intention to permanently cease operations.
- ▶ VY exited the NRC Reactor Oversight Process (ROP) and commenced the decommissioning inspection program on January 20, 2015.
- ▶ The focus of VY and its employees continues to be their ongoing commitment to safety.

# Significant Milestones Since the August 2013 Announcement

- ▶ Negotiated a Settlement Agreement with the State benefitting both parties, including;
  - \$25M Site Restoration Fund
  - \$ 5M+ Clean Energy Development Fund
  - \$10M Economic Development Fund
  - Commitment to begin major decommissioning work after Nuclear Decommissioning Trust is adequately funded
- ▶ Certificate of Public Good (CPG) issued March 28, 2014 for operations through end of 2014.
- ▶ Meetings among Vermont Agency for Natural Resources (VANR), Department of Health (DOH), and VY technical staff to discuss current site conditions and future plans.

# Significant Milestones Since the August 2013 Announcement (cont'd)

- ▶ Issued Site Assessment Study (SAS) on October 17, 2014, which included:
  - Decommissioning Cost Estimate (DCE)
  - Draft PSDAR
  - Historical Site Assessments (Radiological & Non-Radiological)
- ▶ Post-Shutdown Decommissioning Activities Report (PSDAR) Submitted to NRC on December 19, 2014.
- ▶ Withdrawals from the Nuclear Decommissioning Trust (NDT) Commenced in February 2015.
- ▶ Post-Shutdown Emergency Plan (E-Plan) License Amendment Request (LAR) Approved by NRC on February 4, 2015.

# Commitment to Vermont Yankee Employees

- ▶ Consistent and unwavering commitment to employees since shutdown announcement.
- ▶ Staffing reductions will occur at key milestones during transition to SAFSTOR based upon safe, secure, and regulatory compliant post-shutdown operations.
- ▶ Workforce reduced by 186 (89 employees from VT, 69 from NH, 28 from MA) on January 19, 2015 to support the current SAFSTOR organization and Emergency Response Organization (ERO).
  - 67 employees transferred within Entergy
  - 119 employees either left Entergy or were retirement eligible
- ▶ Entergy provided retention, severance, and relocation benefits

# Staffing Transition to Decommissioning

Operation		Dormancy Preparation					SAFSTOR
2013	2014	2015	2016	2017	-	2020	2021+

*Defuel*

*Fuel Cool*

*Fuel in Dry Storage*

*1st ISFSI Pad Full;  
2nd Pad Needed*

Wet Fuel (Cool)  
Management

~127 Personnel

Dry Fuel  
Management  
~58 Personnel

Site Operation

✓ Operation  
Safety

~550 Personnel

Wet Fuel (Hot)  
Management

~316 Personnel

Decom Planning

Organizations

# Current Spent Fuel Pool Storage

- The Spent Fuel Pool currently stores the majority of fuel used at VY.
- Thirteen (13) Dry Cask Storage Casks are safely loaded and stored on the first of two planned ISFSI pads.
- An application for a second ISFSI pad has been submitted to the Public Service Board (PSB) seeking a Certificate of Public Good (CPG).
- A total of fifty-eight (58) Dry Cask Storage Casks will house 3,880 spent fuel assemblies on the two pads.
- Current plan is to transfer all spent fuel to Dry Cask Storage by late 2020.



# Independent Spent Fuel Storage Installation (ISFSI)

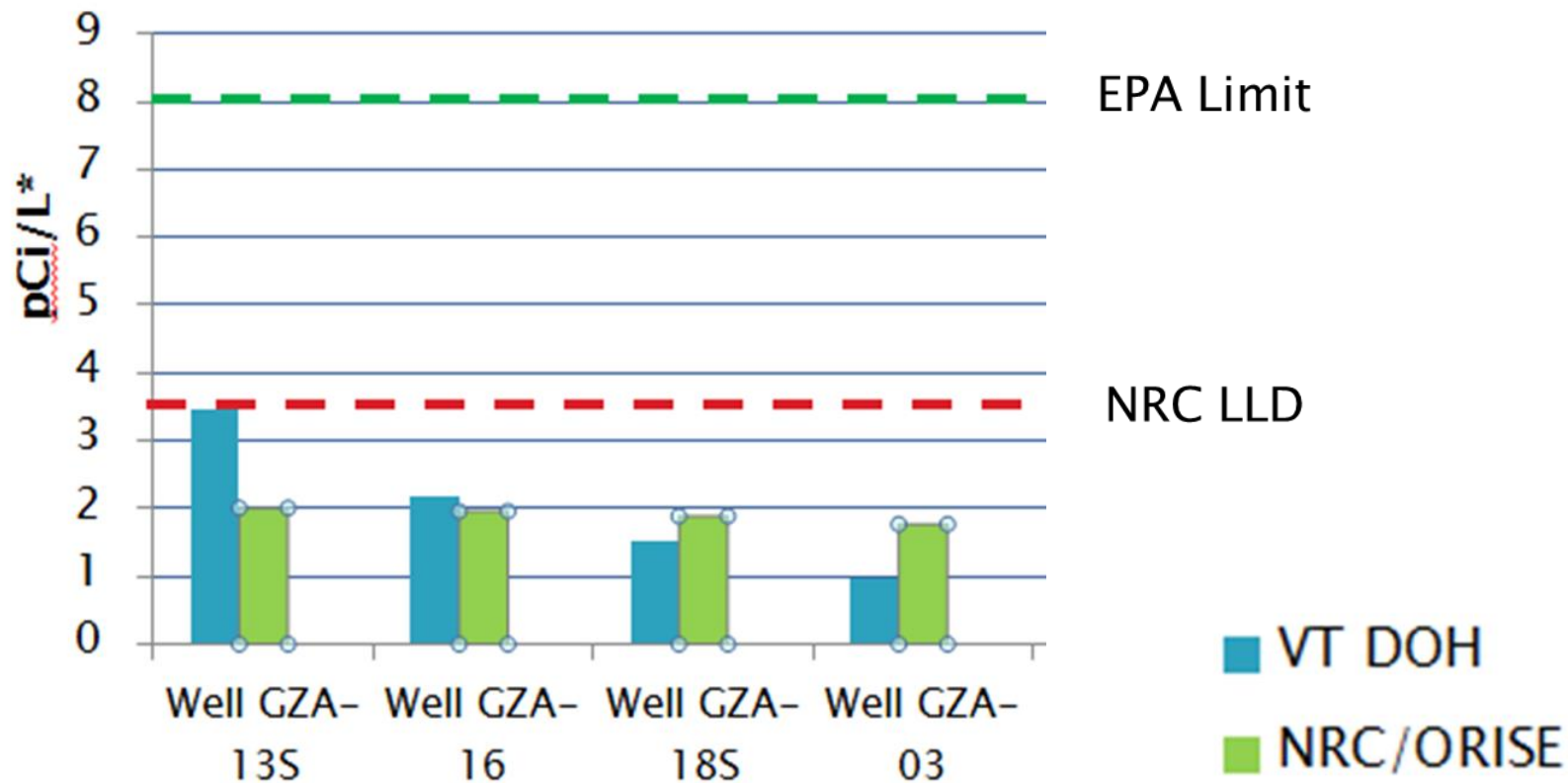




# Focused on Safe Transition to Dry Fuel and Dormancy

- ▶ Continued Compliance with the Settlement Agreement/MOU
- ▶ Decommissioning Preparation Activities
  - System Draining/Lay-Up
  - Building Power Removal to “Cold and Dark”
  - Security Modifications
- ▶ Select Structure/Building Removal
- ▶ Ongoing Environmental Monitoring
- ▶ Establishment of Site Restoration Standards with the State of Vermont
- ▶ Completion of Second ISFSI Pad and Transfer of Spent Fuel from Pool to Pad

# Groundwater Strontium 90 Laboratory Data – Vermont DOH and NRC/ORISE



\*pCi/L – picocuries per liter  
pico = one trillionth