

## VERMONT YANKEE

# Entergy to sell shutdown reactor

*By transferring ownership to a third party for decommissioning, Entergy expects to take the closed Vermont Yankee reactor out of SAFSTOR and complete cleanup of the site by 2030.*

**P**lant decommissioning and site restoration of Vermont Yankee will be accelerated by decades under an agreement that Entergy has made to sell the closed nuclear power plant, the company announced on November 8. Entergy intends to sell the plant and transfer its licenses to subsidiaries of NorthStar Group Services, a New York-based decontamination and decommissioning contractor. NorthStar also will assume Vermont Yankee's decommissioning trust fund, reported to be currently valued at about \$575 million, as well as its obligations for spent nuclear fuel management and decommissioning.

Entergy did not disclose the terms of the sale, which are subject to closing conditions, including approval by the Nuclear

Regulatory Commission and the Vermont Public Service Board. As a result of the sale, Entergy said that it will receive a "nominal cash consideration and a promissory note equal to the amount owed at the time of closing under a credit facility to finance Vermont Yankee's dry fuel storage costs, which facility will be either assumed or refinanced by an Entergy subsidiary at or before the closing." Entergy expects the sale will result in an undetermined loss at closing, the amount of which depends on the value of the plant at the time of closing and the sale price plus any agreed to adjustments. The transaction is expected to close by the end of 2018.

As outlined in its Post Shutdown Decommissioning Activities Report filed with the NRC in December 2014, En-



Photo: Entergy

**Vermont Yankee:** Decommissioning will be completed decades earlier than originally planned with its sale to NorthStar Group.

tergy placed the reactor in safe storage (SAFSTOR) to allow the level of radioactivity to decrease by natural decay. The delay also would provide time for the decommissioning fund to accrue interest and grow enough to cover the estimated \$1.243-billion D&D cost. The company expected to begin D&D work in 2068, with a projected completion of both decommissioning and site restoration by 2075.

Under the agreement with Entergy, NorthStar is to start the D&D work by 2021 and complete the decommissioning and restoration of the Vermont Yankee site, with the exclusion of the plant's independent spent fuel storage installation (ISFSI), by 2030. NorthStar will continue to operate and maintain the ISFSI until the Department of Energy fulfills its obligation to remove all of the spent nuclear fuel from Vermont Yankee, after which the company will then decommission the ISFSI, terminate the NRC license, and complete site restoration, according to Entergy.

NorthStar will perform the work through a subsidiary with partners Areva, Waste Control Specialists (WCS), and Burns & McDonnell. Areva will be responsible for reactor vessel and internals segmentation and spent fuel management support, including waste disposal transportation services. WCS, which operates a radioactive waste disposal site in Andrews County, Texas, also will be responsible for waste management, packaging, transportation, and disposal, while Burns & McDonnell will provide engineering and regulatory support.

"Our in-house expertise, combined with the proven track record of our partners, provides the complete package of skills needed to ensure the timely, safe, cost-efficient decommissioning and restoration of the Vermont Yankee site," said Scott State, NorthStar's chief executive officer, in a statement.

In addition to the earlier decommissioning, Entergy noted that the transfer of all of Vermont Yankee's spent fuel to dry cask storage at the site will be completed two years earlier than the previously planned date of 2020. According to Entergy, Holtec International, the manufacturer of the dry storage systems used at Vermont Yankee, submitted license amendment requests to the NRC earlier this year. If approved, those amendments will support the complete transfer of all of Vermont Yankee's spent fuel to the site's ISFSI by the end of 2018.

In a statement, Bill Mohl, president of Entergy Wholesale Commodities, said, "By accelerating decommissioning, we are fulfilling a commitment we made in 2013 to decommission Vermont Yankee as soon as reasonably possible." Mohl added that the sale will enable Entergy to manage financial risk and reduce its holdings in

merchant power, which has become less profitable due to low natural gas prices.

Entergy purchased Vermont Yankee, a single-unit, 617-MWe boiling water reactor located near Vernon, Vt., in 2002 from Vermont Yankee Nuclear Power Corporation, and in 2011 the company received NRC approval to extend the reactor's license 20 years, to 2032. Despite the renewed license, Entergy, citing economic factors, announced in April 2013 that it was closing Vermont Yankee and the reactor was disconnected from the grid on December 29, 2014 (*NN*, Feb. 2015, p. 21).