Before: Looking northeast toward the plant, the former security building (white) and site security fence can be seen still intact, and demolition of the turbine building has not fully commenced.

After: The security building and fencing have been removed, and demolition of the turbine building is well under way.
With each passing day, the radiological risk is reduced at the closed Zion nuclear power plant in northeastern Illinois, allowing for crews to come in with heavy equipment and begin taking down the plant’s larger structures. In the past year, as shown in the accompanying photos, crews have razed a number of buildings and structures, including the crib house, the old sewer lift station, and the south guardhouse. In June, workers completed the demolition and backfill of the plant’s services building and detensioned and removed the tendons from the containment buildings. The turbine building’s unconditional-release surveys were completed in 2015, and the structure is currently being demolished.

On March 29, ZionSolutions, the EnergySolutions subsidiary that is conducting Zion’s decommissioning, announced that it has successfully completed the removal of the plant’s large components and prepared them for shipment and final disposition. This includes the steam generators, pressurizers, piping components, reactor coolant pump, and motors.

As of this year, more than 98 percent of all the radioactive source term of the Zion plant has been removed and disposed of or placed into dry storage at the site’s independent spent fuel storage installation. According to ZionSolutions, the project remains on budget and is two years ahead of its 2020 completion schedule.

The progress at Zion can be seen in the following photos, which show the culmination of 15 months of work. The “before” photos were taken during a visit to the site on April 28, 2015, while the “after” photos were taken on July 18, 2016.
Detensioning and removal of the tendons from Zion’s Unit 1 and 2 containment buildings was completed in June. The tendons provided structural reinforcement to the buildings so that they could withstand severe earthquakes. The ventilated interior demolition of the containment buildings is planned to begin in October of this year.
Before: Inside the turbine building, the interior is still largely intact, with heavy components still remaining to be removed.

After: The building’s roof and south wall have been removed as workers remove the structure from the top down. Metal from the building and components is separated for recycling.

A worker stands in a doorway cut into Zion’s Unit 1 containment building in July. ZionSolutions says it is on track to complete decommissioning by 2018.