Celebrating Success: Pantex Plant Superfund Site Carson County, Texas

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Superfund Redevelopment Initiative



Region 6 Superfund Division Director Carl Edlund presents the Greenovations Award. (*Source:* EPA)

"The National Nuclear Security Administration and Pantex have shown outstanding leadership not only cleaning up this site, but also turning it into a source of clean, renewable energy... Their innovation will serve as an example of the natural connection between environmental sustainability and economic benefit."

- Ron Curry, EPA Regional Administrator



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The ribbon cutting ceremony for the on-site wind farm. (*Source:* EPA)

The largest federally owned wind farm in the country is located on a Superfund site. The Pantex Plant, a U.S. Department of Energy (DOE) facility near Amarillo in northern Texas, is home to a fiveturbine, 11.5-megawatt wind farm that produces about 47 million kilowatt-hours of electricity annually, more than 60 percent of the energy needed by the Pantex Plant. The wind farm, formally known as PREP – the Pantex Renewable Energy Project – sets a new standard for harnessing wind energy at an active federal facility.

The Pantex Plant was established in 1942 to build conventional munitions and high explosive components in support of World War II. In 1951, the Atomic Energy Commission reclaimed the Pantex Plant for use as a nuclear weapons facility. Today, under management of DOE and the National Nuclear Security Administration (NNSA), the Pantex Plant is the nation's primary facility for the assembly, disassembly and maintenance of nuclear weapons. It also supports other activities, such as the testing and fabrication of high explosive components, interim storage of plutonium and weapon components, and component surveillance. The Pantex Plant's past waste management practices resulted in the release of chemical and radionuclide constituents into the environment. In the late 1980s, DOE's Office of Environmental Management started its Environmental Restoration Project at the Pantex Plant. EPA listed the site on the Superfund program's National Priorities List in 1994. Construction of the Sitewide Remedy selected in the 2008 Record of Decision was completed in July 2009. The long term remedial action remaining for the site addresses the cleanup of the Perched Aquifer.

Construction of the wind farm began in August 2013. The use of clean, renewable wind energy provides power at a utility scale, an innovative approach for supporting a sustainable groundwater cleanup at a large, actively used federal facility. Groundwater systems extract and treat over 230 million gallons of contaminated groundwater annually. Energy savings from the project are about \$2.9 million a year. The project reduces carbon dioxide emissions by over 35,000 metric tons per year, the equivalent of removing 7,200 cars from the road or planting 850,000 trees.

In June 2014, EPA presented the Pantex Plant with the Region 6 Greenovations Award for innovative reuse of the site. The award recognizes the outstanding achievements of the DOE and the NNSA in working with EPA to ensure the safe and responsible cleanup and reuse of the site. The DOE and NNSA have creatively explored opportunities to ensure the long-term sustainability of the remedy and continued use of the site, promoted innovative and green reuse through the wind energy project, and demonstrated leadership and outstanding environmental stewardship in incorporating a utilityscale, alternative energy technology at an active federal facility.