DOE/EA-1997

Finding of No Significant Impact for the Construction Landfill Expansion

U.S. Department of Energy
National Nuclear Security Administration

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U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION
FINDING OF NO SIGNIFICANT IMPACT FOR THE
CONSTRUCTION LANDFILL EXPANSION
ENVIRONMENTAL ASSESSMENT

AGENCY: Department of Energy (DOE), National Nuclear Security Administration, (NNSA)

ACTION: Finding of No Significant Impact (FONSI)

SUMMARY: The NNSA has prepared an Environmental Assessment (EA), DOE/EA-1997, to analyze the potential environmental consequences of designing, constructing, and operating an approximately 28 acre expansion adjacent to the existing onsite Class 2 non-hazardous industrial solid waste landfill used to dispose of construction debris in accordance with the requirements of 30 TAC 335.2(d)(1) and 335.5. The current construction landfill area is nearing capacity, with the last available cell opened in September 2012 and anticipated to reach capacity in early 2019. The construction of an additional 28 acres of construction landfill is needed to ensure that the Pantex Plant would have the capability to safely and securely dispose of certain Class 2 non-hazardous construction waste onsite and avoid offsite transportation and disposal costs.

A Notice of Intent announcing the preparation of the EA was placed in local newspapers, the Pantex website, and the DOE National Environmental Policy Act (NEPA) website on October 8, 2015. Based on the information and analyses in the EA, NNSA has determined that the proposed action is not a major federal action significantly affecting the quality of the human environment, within the meaning of the NEPA of 1969, 42 United States Code (USC) 4321 *et seq.*, the Council on Environmental Quality regulations implementing the NEPA (40 CFR 1500-1508), and the DOE regulations for implementing NEPA (10 CFR 1021). Therefore, preparation of an Environmental Impact Statement (EIS) is not required, and NNSA is issuing this FONSI.

ADDRESSES: The Final EA and FONSI will be published on the Pantex website (http://www.pantex.com/mission/Pages/Environmental-Compliance-Documents.aspx) and the DOE NEPA website (https://energy.gov/nepa/listings/environmental-assessments-ea).

Hard copies of the EA are available from:

Mr. Steven Wyatt, NPO Public Affairs Manager
DOE/NNSA
P. O. Box 2050
Oak Ridge, Tennessee 37831
Requests may also be made by telephone to Mr. Wyatt at (865) 576-9918 or by fax at (865) 576-1237 or by e-mail to: Steven.Wyatt@npo.doe.gov.

For further Information on the DOE NEPA Process, contact:
Mr. Brian Costner, Acting Director
Office of NEPA Policy and Compliance (GC-20)
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585-0119

SUPPLEMENTARY INFORMATION:

The purpose of this action is to ensure that the Pantex Plant continues to have the capability to safely and securely dispose of Class 2 non-hazardous construction waste. This action is needed because the existing onsite non-hazardous construction waste landfill is projected to reach capacity in early 2019.

The proposed action would include the installation of approximately 3,185 linear feet of 8-foot high chain link fence to provide safety and security for the proposed construction landfill, and installation of a 24-foot wide gate to allow access from the existing construction landfill area to the proposed expansion area. The fence installation would include scraping the existing vegetation to provide a clear working area. All fencing installation would be completed by an outside contractor. Future maintenance of the fence line could include the use of herbicides to keep the area clear for collection of any blowing debris from the landfill.

Up to nine individual landfill cells (approximately 130 ft. wide x 600 ft. long x 20 ft. deep) would be excavated in the proposed construction landfill area, requiring a total area of approximately 16 acres. The remaining approximately 12 acres would provide buffer areas between the cells and fencing and between the individual cells. The individual cells would be excavated one at a time, with excavation starting on the next cell when the current cell is approximately nine months from reaching capacity. Each cell would require approximately four to six months to excavate. All cell excavations would be completed by CNS Pantex Waste Operations Department personnel, or under their direction.

ENVIRONMENTAL IMPACTS:

A sliding scale approach was used for analyzing potential environmental and socioeconomic effects. This means the EA focused on significant environmental issues and alternatives and discussed impacts in proportion to their significance. Generally, certain aspects of the proposed action have a greater potential for creating environmental effects than others. The aspects with greater potential for impacts are discussed in more detail in this EA, but are summarized below.

Approximately 28 acres of cropland would be permanently impacted by the proposed project and would remain in operational use after project completion. The site for the proposed project is cultivated upland that is currently in a winter wheat, grain sorghum, and fallow rotation (two crops in three years).

If nests of birds were discovered in the proposed project site, the Pantex Wildlife Biologist would be contacted for assistance in mitigating disturbance of these nests. Nests could possibly be encountered during the March through August nesting season.

The Texas Horned Lizard is the only State threatened or endangered species that is a year-round resident in areas of Pantex. If Texas Horned lizards were encountered at the proposed site, they would be moved out of harm's way and released adjacent to the site. Horned lizards could possibly be encountered from March/April through September/October. It is possible that the acreage of temporary disturbance left from the construction would be of use to the Texas Horned lizards and other species that utilize bare, soft, or recently disturbed ground.

Impact to transient species would be minimal, since the habitat disturbance area would be geographically small scale, temporary, and not a critical or unique habitat.

The major surface water source near Pantex is the Canadian River, located about 17 miles northwest of the facility, which flows in a generally eastward direction into Lake Meredith, a constructed reservoir. Plant surface waters do not drain into this system, but mostly discharge into onsite playas. Storm water, from agricultural areas at the periphery of the Plant, drains into offsite playas. From the various playas, water either evaporates or infiltrates the soil. Runoff with increased suspended solids could occur during the construction and operation of the proposed landfill and stockpiling of the excavated soil. Good engineering practices, including soil erosion and sediment control measures, and spill prevention and waste management practices, would minimize any suspended sediment and pollutant transport that could result in potential water quality impacts. The proposed landfill expansion would be in compliance with the requirements of the Texas Pollutant Discharge Elimination System, which includes monthly and quarterly inspections, yearly storm water sampling for required metals, and twice yearly storm water sampling for total iron and total suspended solids. The additional 28 acres of landfill expansion would be added to the associated Storm Water Pollution Prevention Plan and would also be included during inspections for soil erosion and sediment control measures.

Approximately 27,155 gallons of water would continue to be used every 6.5-years during the revegetation of a landfill cell when it is closed. The proposed life of the landfill expansion would require a total of 244,395 gallons of water to support revegetation of the nine additional cells.

Air emissions would include dust (excavation, daily cover, backfilling the cells, and movements of construction vehicles), but these emissions would not require monitoring. Appropriate best management practices would be used to control fugitive dust and particulate emissions. Modeling results of concentrations for criteria and toxic pollutants using Plant emissions for ongoing operations indicated that none of the National Ambient Air Quality Standards would be exceeded at the Pantex Plant boundary.

Heavy equipment and hauling operations, staging areas, landfill cell preparation activities, and operation of the construction landfill would denude approximately 28 acres of agricultural land, and create temporary adverse visual effects. The proposed new landfill would be adjacent to the existing landfill area, and from a distance would present a similar appearance. The approximately 72 acres of adjacent land to the north, west, and south of the proposed landfill would remain in cultivation. The nearest off-site receptor is a residence located west of Farm to Market (FM) approximately 1.5 miles southwest of the proposed project site.

The temporary increase in noise levels from proposed landfill cell construction activities and routine operation of the landfill would be similar to other construction activities and vehicular noise at Pantex, as well as offsite vehicular traffic, airport traffic, railroad traffic, and agricultural activities. Temporary increases would not be expected to cause sufficient change in noise levels to result in more than a temporary annoyance to employees or adjacent landowners. Temporary, intermittent noise levels (between 80 and 100 decibels A-weighted) could result from the use of heavy equipment like bulldozers, loaders, and large trucks during routine landfill operation activities. These levels attenuate rapidly with distance, and will not likely impact neighboring landowners because operation activities would be confined to the central portion of the Plant, away from residential populations. The nearest off-site receptor is a residence located west of FM 293 approximately 1.5 miles southwest of the proposed project site. The Plant boundary sound levels are 38-58 decibels A-weighted.

The types of activities during the construction of new landfill cells and the routine operation of the landfill would include establishing and maintaining site access, with the site locked when the

operator is not present. The construction of new cells, at minimum, would be in accordance with the sloping and benching requirements of Occupational Safety and Health Administration Excavation Standard 1926 Subpart P, including the general requirements which identify and address the following potential hazards associated with excavations: exposure to vehicular traffic and heavy equipment; exposure to falling loads; hazardous atmospheres; water accumulation in trenches; and loose rock or soil.

Waste at Pantex Plant is generated from ongoing weapons operations, Highly Explosive production, and support operations such as medical services, vehicle maintenance activities, general office work, construction activities, environmental monitoring, laboratory activities, and environmental restoration activities. Based on the Cell 14 waste volume information, the nine proposed landfill cells would have the potential to hold 59,922 cubic meters of Class 2 construction waste. Although the estimate of total construction waste for the nine landfill cells would be fairly accurate, the yearly estimates and life of the landfill would be dependent on the number and size of construction or deactivation and decommissioning projects, and the ability to implement new pollution prevention opportunities through recycling, in any given year.

The utilities at the existing construction landfill consists of a single overhead electric line to the landfill office. All above ground utilities that cross roadways have a minimum vertical and horizontal clearance of 16.5 ft. The current utilities infrastructure would not change with the Proposed Action.

There would be no negative effects from the operation of the new landfill on visual resources, noise levels, floodplains/wetlands, cultural resources, human health, transportation/traffic, waste management, utilities infrastructure, or socioeconomic resources.

Analyzed resources which could potentially experience cumulative effects, are land use, water resources, biological resources, air quality, noise, and construction waste.

DETERMINATION: Based on the analysis of the EA, and after careful consideration of all agency comments, I conclude that the Proposed Action does not constitute a major Federal action significantly affecting the quality of the human environment within the meaning of NEPA. Therefore, an EIS for the Proposed Action is not required and this FONSI is hereby issued.

Issued in Oak Ridge, Tennessee, this 31 day of January 2018.

NNSA Production Office Manager
National Nuclear Security Administration
U.S. Department of Energy