ENVIRONMENTAL ASSESSMENT (EA) DETERMINATION FOR THE PROPOSED MATERIAL STORAGE FACILITY (MSF) (DOE/EA-2110)

Project Name: Material Staging Facility (MSF) (DOE/EA-2110)

Location: The proposed action would be located in a new facility at the Pantex Plant.

Brief Description of Proposed Action: The National Nuclear Security Administration (NNSA) proposes to evaluate an alternative to construct a MSF to replace the facilities in Zone 4W. The purpose of this project would be to design and construct a MSF that would include several support building structures to ensure the Nuclear Security Enterprise has the capability and capacity to support weapons stockpile schedule commitments for current and future workloads. The MSF would function for staging nuclear weapons, nuclear material, and nuclear weapon components, with loading/unloading docks, parking pads, a ramp for facility access, and equipment room(s). Currently, all available staging facilities at the Pantex Plant are near capacity. A MSF would replace Zone 4W and areas of Zone 12S in the staging of stockpile assets, and would be designed for a 50 to 75 year life span.

Zone 4W is experiencing several issues including maintenance of safety class systems, lack of adequate heating, ventilation, and air conditioning, deterioration of facility structures and lighting. Staging areas in Zone 4W require a Perimeter Intrusion Detection and Assessment System (PIDAS) that is starting to exceed its life expectancy and will eventually result in system failure if not replaced, revitalized, or refreshed. Some of these issues have introduced risk to the mission and required implementation of specific administrative controls (SACs). The MSF would mitigate the SACs as much as possible.

The MSF project includes these tasks:

- **Site Preparation**

The MSF would be constructed below ground, outside of the Zone 12S PIDAS, and be connected to an area within the Zone 12S PIDAS using a below-ground tunnel leading to a ramp that surfaces within the PIDAS. Excavation would be sized and conform to civil engineering standards. Any Solid Waste Management Unit (SWMU) soil excavated in the area (through any excavation method) would need to be handled according to a SWMU interference permit.

- **New Building Design and Construction**

The MSF facility itself would be approximately 176,000 square feet (sq. ft.) of usable space in a poured-in-place concrete structure that would be buried approximately 50 feet deep (approximately a 10-foot deep earthen cover). Construction would also include four new loading/unloading docks within the Zone 12S PIDAS for receiving/shipping activities and 15 pads for secure transport vehicles, electrical substations, generator, fuel tank, and mechanical/electrical room.

• **Design, Install, and Stage Weapons, Nuclear Material, and Weapons Type Components**
The completed MSF project will stage materials such as nuclear weapons, nuclear material, and nuclear weapon components for a secure, sustainable capability and capacity-based infrastructure to enable the staging of such material in a manner that ensures workload commitments for dismantlement, surveillance, stockpile refurbishment, and nuclear non-proliferation objectives are met.

Based on my review and knowledge of the project, I recommend that an EA be prepared to assess the impacts of the proposed action to construct a MSF.

Jack Zanger

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Jack Zanger, NNSA Production Office (NPO), Date
National Environmental Policy Act (NEPA) Compliance Officer

Based on the recommendations of the NNSA Production Office NEPA Compliance Officer, I have determined that an EA be prepared to assess the impacts of the proposed action. Based on the analysis in the EA, NPO would either prepare a "Finding of No Significant Impact" and proceed with the action or prepare an Environmental Impact Statement if the EA reveals the potential for significant environmental impacts.

9/10/2019

Geoffrey Beausoleil, Manager, NNSA Production Office Date