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U.S. DEPARTMENT OF ENERGY
FINDING OF NO SIGNIFICANT IMPACT
ENVIRONMENTAL SAFETY AND HEALTH ANALYTICAL LABORATORY
PANTEX PLANT

AGENCY: Department of Energy

ACTION: Finding of No Significant Impact

SUMMARY: The U.S. Department of Energy (DOE) has prepared an Environmental Assessment (EA) of the construction and operation of an Environmental Safety and Health (ES&H) Analytical Laboratory and subsequent demolition of the existing Analytical Chemistry Laboratory building at Pantex Plant near Amarillo, Texas. In accordance with the Council on Environmental Quality requirements contained in 40 CFR 1500-1508.9, the Environmental Assessment examined the environmental impacts of the Proposed Action and discussed potential alternatives.

Based on the analysis of impacts in the EA, conducting the proposed action, construction of an analytical laboratory and demolition of the existing facility, would not significantly effect the quality of the human environment within the meaning of the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality regulations in 40 CFR 1508.18 and 1508.27. Therefore, the preparation of an Environmental Impact Statement is not required, and the DOE is issuing a Finding of No Significant Impact.

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ADDRESSES AND FURTHER INFORMATION: Persons requesting additional information regarding this action or desiring a copy of the Environmental Assessment should contact:

Mr. Thomas Walton, Public Affairs Officer
Amarillo Area Office
P.O. Box 30030
Amarillo, Texas 79120
(806) 477-3120

Copies of the Environmental Assessment are available for public review at the following Department of Energy reading rooms:

U.S. Department of Energy
Freedom of Information Reading Room
Forrestal Building, Room 1E-190
1000 Independence Avenue, SW
Washington, DC 20585
(202) 586-6020

U.S. Department of Energy
Reading Room
Amarillo College
Lynn Library/Learning Center
P.O. Box 447
Amarillo, Texas 79178
(806) 371-5400

U.S. Department of Energy
Reading Room
Carson County Library
P.O. Box 339
Panhandle, Texas 79068
(806) 537-3742

U.S. Department of Energy
SWEIS Reading Room
6900 I 40 West
Suite 130
Amarillo, Texas 79106
(806) 353-3600

For information regarding the Environmental Assessment and this Finding of No Significant Impact please contact:

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Amarillo, Tx 79120
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For general information regarding the Department of Energy National Environmental Policy Act process, please contact:

Ms. Carol M. Borgstrom
U.S. Department of Energy
Office of National Environmental Policy Act Oversight
1000 Independence Avenue, SW
Washington, DC 20585
(202) 586-4600 or (800) 472-2756

PROPOSED ACTION: An analytical laboratory is necessary to meet the DOE's current and projected needs for testing and analysis of materials associated with operation of Pantex Plant. Increased laboratory capability is needed to analyze environmental samples, high explosives, mock explosives, and materials used during weapons assembly; to meet rapid analytical turnaround requirements; to utilize advanced laboratory analysis technology capabilities; to capitalize on the specialized expertise associated with explosives; and to support weapons activities.

The Proposed Action is to construct and operate an ES&H Analytical Laboratory and to demolish the existing Analytical Chemistry Laboratory. The ES&H Analytical Laboratory would replace the existing Analytical Chemistry Laboratory by providing upgraded capability to perform the necessary chemical analyses, properly segregate incompatible chemicals, prepare and analyze laboratory samples with sufficient working space, and expand onsite capabilities for analysis of environmental samples. A specially designed "hardened" area would be incorporated into the new building for the safe, secure staging of small quantities of explosive test materials. The proposed action would result in higher

quality analytical results due to the advanced technology available at Pantex Plant and less risk to the public because fewer hazardous samples would be shipped offsite.

The existing laboratory has insufficient bench space and equipment to perform all analyses required in support of current and projected Pantex Plant operations. Work space is seriously overcrowded, compromising the safe preparation and analysis of samples that may contain high explosives. There is also insufficient space for the proper staging of chemicals resulting in less than optimal segregation of incompatible chemicals. Temperature and environmental controls in the existing laboratory are not adequate to support increased analytical equipment and instrumentation required to meet current and projected analytical chemistry needs of the Plant. The crowded conditions have hampered efforts to create or stay current with new technologies and to improve existing procedures. Following completion of the ES&H Analytical Laboratory, the existing laboratory and associated facilities, for example walkways and storage areas, would undergo an asbestos removal procedure and then be demolished.

SUMMARY OF ENVIRONMENTAL IMPACTS: Construction of the ES&H Analytical Laboratory will require 19 months. No discharges of waste will occur during construction. Also, water resources will not be affected significantly from construction; however, storm water runoff could occur, but only for a limited period of time. Emissions of fugitive dust will occur but will be controlled and minimized by dust suppression. A slight increase in traffic will also occur. The generation of construction debris and trash will be minor. The construction contractor will be responsible for the control and disposal of any construction waste. No radiological hazards will be encountered during the construction phase of the proposed action.

Operation of the ES&H Analytical Laboratory will result in minor air emissions from fume hoods from the many laboratory chemicals; however, the emissions are exempt from permitting requirements by the Texas Air Control Board (Exemption No. 34). Only trace amounts of low-level radioactive materials will be analyzed in the ES&H Analytical Laboratory, and no emissions of radionuclides will occur from this facility. Water consumption will be consistent with the planned staff of 20 (currently 10 and a planned increase of 10) and resulting domestic discharges to the Plant sewage system will increase slightly with the planned 10 additional persons. A slight decrease in traffic will occur resulting in fewer samples being sent offsite for analysis. Hazardous waste generated from laboratory analyses will be packaged, staged, transported offsite, and disposed of at a permitted facility. Office trash and uncontaminated laboratory trash will be disposed of in an offsite Class II/III industrial waste landfill. High-explosive samples will be staged in the Explosives Staging Area and after analysis will be treated by burning at the Pantex Plant Burning Ground; the resulting ash will be characterized to determine additional treatment requirements and/or appropriate disposal. All waste will be managed in accordance with the applicable state and federal regulations, DOE Orders, and Pantex Plant procedures.

Conditions for the workers health and safety and on the environment will be improved from the current conditions. The ES&H Analytical Laboratory will provide safe working conditions for the staff, provide a more conducive means of complying with environmental regulations, and produce higher quality analyses at lower risk than is currently available offsite.

Demolition of the existing Analytical Chemistry Laboratory is planned to begin following construction and occupancy of the ES&H Analytical Laboratory. Demolition will produce temporary increases in traffic flow and fugitive dust emissions will also increase temporarily; however, these effects will be

mitigated as necessary. Asbestos is present in some of the building materials and will be removed prior to demolition using an approved asbestos abatement plan. The hazards associated with asbestos will be mitigated to acceptable levels by administrative controls, such as an approved abatement plan, and engineering controls, such as respirators and personal protective clothing as necessary. Material contaminated with hazardous waste and asbestos-contaminated waste may be encountered during demolition; these materials would be packaged and transported offsite for disposal in accordance with applicable federal and state regulations, DOE Orders, and Pantex Plant procedures. Class III construction waste (inert materials) will be disposed of at the Pantex Landfill in accordance with the Zone 10 Landfill Permit requirements. No adverse consequence will occur concerning water quality and no radiation hazards are expected. All demolition activities will be conducted in accordance with applicable DOE Orders, National Fire Codes, OSHA regulations, ANSI practices, and Pantex Plant procedures for construction safety. A safety assessment will be performed to evaluate the risk of the demolition activities.

ALTERNATIVES CONSIDERED: A preliminary evaluation of the various alternatives for performing the necessary analytical work to support operations at Pantex Plant revealed that the selection of the feasible options depended largely on environment, safety, and health issues. Five alternatives to the proposed action were considered and are summarized as follows.

No Action. The No-Action Alternative is to leave the current laboratory buildings and support facilities in place and continue to perform laboratory analyses in the facilities in their present condition. No new laboratory would be constructed to support operations, nor would any demolition take place. Increased maintenance would be required on the old facility, and air handling problems would arise, increasing the likelihood of sample contamination. The inadequate chemical staging area

requires that incompatible chemicals be stored in proximity to each other, creating safety concerns for laboratory workers. The laboratory is deteriorating and would cause safety concerns for the workers. The ability to create and utilize new technologies for sample preparation and analysis is limited due to space limitations. Opportunities to expand laboratory capabilities by adding new equipment, sample preparation areas, chemical staging areas, and new staff are not possible. A major portion of sample analyses would continue to be conducted offsite by contractors, and additional contracting of analyses would be necessary to meet the increasing demands for analytical service at Pantex Plant. This alternative was rejected because of significant concerns with worker safety, noncompliances with federal environmental regulations, and the inability to conduct the necessary analyses onsite to support the mission at the Plant.

Addition, Remodeling, and Continued Use of Existing Facilities. The major concern with this alternative is that during the add-on and remodeling phases, laboratory operations would need to be shut down or relocated to a temporary facility. No facility currently exists for temporarily relocating laboratory operations. Continued support to the DOE mission would be seriously compromised by the shutdown of the laboratory operations for any extended period of time.

Move Operations to Another Facility Onsite. This alternative involves moving the operations to another facility at Pantex Plant. This alternative is not practical because there are no facilities onsite which could be currently used for laboratory operations, nor are there any facilities that can be reasonably remodeled for this purpose.

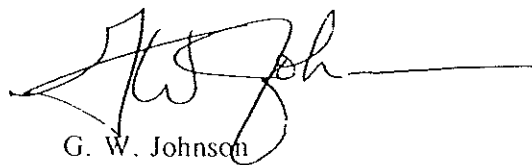
Move to a Temporary Facility. This alternative involves moving the laboratory operations to a temporary facility. However, some proposed activities planned for the new laboratory, for example

explosives staging, would not be allowed in a temporary facility. The staging of explosives and laboratory operations must meet the requirements in the DOE Explosives Safety Manual.

Use Outside Contractors for Analyses. This alternative uses the services of independent contractors to perform the required analyses proposed for the ES&H Analytical Laboratory. Many samples have short holding times and must have expedited turnaround on analysis to meet regulatory requirements and agreements; outside contractors may not meet the Plant's turnaround requirements. Control of samples and oversight of the analytical process is reduced. Additionally, there is an inherent risk in shipping explosives offsite to contractors, and classified samples cannot be sent offsite.

DETERMINATION: Based on the information contained in the Environmental Assessment, the DOE determines that the construction and operation of the Environmental Safety and Health Analytical Laboratory at Pantex Plant and demolition of the existing Analytical Chemistry Laboratory does not constitute a major federal action significantly affecting the quality of human environment within the meaning of the National Environmental Policy Act, 42 U.S.C. 4321 et seq. Therefore, an Environmental Impact Statement is not required.

Issued Amarillo, Tx. on this 6th day of July, 1995.


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Manager,
Amarillo Area Office