

PLUM BROOK ORDNANCE WORKS

Restoration Advisory Board

Quarterly Fact Sheet

October thru December 2004

SITE DESCRIPTION

The former Plum Brook Ordnance Works is located four (4) miles south of Sandusky, Ohio, near Lake Erie. Nitroaromatic explosives produced at the site included TNT, DNT, and pentolite; other products produced at the ordnance works included nitric and sulfuric acid. The plant operated for four years from 1941 to 1944, and was decontaminated by the end of 1945. Possession of the property was transferred to the Ordnance Department in 1946, then to the War Assets Department, and finally to the GSA in 1949. NASA acquired the property in 1963 and presently maintains and utilizes 6453.5 of the original 9009 acres.

SITE HISTORY

The U.S. Army entered into a contract with Trojan Powder Company for the purpose of manufacturing this ordnance. The official title for the site during this time was the Plum Brook Ordnance Works (PBOW). Groundbreaking to construct the facilities to support the manufacturing of ordnance began on April 15, 1941. Production began on December 16, V-J Day (1941). During the production period more than one billion pounds of ordnance was manufactured.

PBOW was placed in standby condition from 1945 to 1946. Throughout this time, the Army conducted decontamination and decommissioning (D&D) of many of the buildings and structures associated with the manufacturing of ordnance. Decontamination efforts on all TNT and DNT lines began in September 1945. Decontamination of TNT lines, acid lines, pentolite lines, and DNT lines was halted during the last quarter of 1945. Typical D&D methods for buildings and structures involved removal and relocation of all explosives to a burning ground where they were burned. Where possible, remaining buildings and structures were burned to the ground. Steam lines, drain lines, etc., were flushed and dismantled. There is no indication in PBOW historical records of where lines were flushed.

It is estimated that 65 percent of the necessary decontamination of PBOW was completed by December 1945. On midnight of December 17, the physical custody of the PBOW was transferred from Trojan Powder Company to the U.S. Army Ordnance Department. The Ordnance Department became the accountable agency and the U.S. Army Corps of Engineers assumed responsibility for maintenance and custodial duties at the PBOW from January 1 through June 30, 1946.

After further decontamination efforts were completed, and the extent of contamination certified, PBOW was transferred to the War Assets Administration in August 1946. From 1946 to 1949 the property was protected and maintained by Matthew-Levio and Sons. In 1949 it was transferred to the General Services Administration (GSA), which maintained oversight of the facility. Ravenna

Arsenal conducted further decontamination efforts from 1945 to 1958. NASA accepted the facility in 1963 after Ravenna Arsenal certified that the PBOW had been completely decontaminated and was suitable for unrestricted future use. After acceptance of the PBOW, NASA identified further areas that required decontamination. In 1964, NASA continued site decontamination and the removal of structures.

In 1956 an agreement was made to lease 500 acres of the north portion of the site to construct and operate the Plum Brook Reactor Facility (PBRF). NASA operated the PBRF from 1963-1973 under a license agreement with the Atomic Energy Commission (AEC). NASA currently has a license agreement with the Nuclear Regulatory Commission (NRC) for the safe protective storage of the PBRF. NASA acquired an additional 6,000 acres of the former PBOW on March 15, 1963, for the purpose of conducting various aerospace research activities. NASA continues to use the site today.

SUMMARY OF ACTIVITIES

Pentolite Road Red Water Ponds Area (PRRWP) – Interim Soil Removal Actions – Draft Decision Document (Soils / Groundwater)

Based on management decisions, the Draft Decision Document for this project will not be completed until investigations/removals have been completed for both soil and groundwater. An interim soil removal action based on Feasibility Study contamination limits was completed in 2003. However, that removal action did not completely remove the contaminated soil for that area. Currently, investigations are underway to delineate the additional limits of contamination. The field work was completed in fall 2004 and the draft report is due 31 July 2005. Because the Decision Document can't be completed until the interim soil removal is complete (all hot spot areas removed, not just delineated), a Preliminary Draft Decision Document is being prepared that incorporates not only the site's historical information, but also all known data to date. The additional data for the soil and groundwater investigations will be added to the Draft Decision Document once it's available.

TNT Area B – Interim Soil Removal Actions – Preliminary Draft Decision Document (Groundwater / Soils)

Currently, an interim soil removal action is underway for the TNT Area B as well as associated investigations to determine extent of contamination in those areas that have exceeded the Feasibility Study-outlined limits. The field work for the removal was completed in fall 2004 and the draft report is due 31 July 2005. Based on management decisions, the Decision Document for this project can not be completed until the groundwater investigations and the interim soil removal action have been completed. Therefore, a Preliminary Draft Decision Document (due out early 2005) is being prepared that incorporates not only the site's historical information, but also all known data to date. The Draft Decision Document will be compiled and submitted for regulatory review once all soil removal and groundwater investigations efforts have been complete.