

PLUM BROOK ORDNANCE WORKS

Restoration Advisory Board

Quarterly Fact Sheet

October through December 2003

SITE DESCRIPTION

The former Plum Brook Ordnance Works is located four (4) miles south of Sandusky, Ohio, near Lake Erie. Nitro-aromatic 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

Red Water Ponds Area - Feasibility Study (Soils)

The Final FS was submitted in mid-December 2003. A Decision Document will not be done until groundwater can be tied in with soils. An interim removal action is underway by LRH at the Pentolite Road Redwater Ponds.

TNT Area B - Remedial Investigation/Feasibility Study (Soils)

The RI/FS is final. In a telephone conversation in late August 2001, there was an agreement to proceed with an action memo instead of a decision document. LRN and LRH completed an Action Memo for the soils removal. Developing the decision document will be delayed until groundwater can be tied in with soils. LRH has an interim removal action for the soils underway.

TNT Area A and TNT Area C - Remedial Investigation/Feasibility Study (Soils)

The Final FS was submitted in late August. A Decision Document will not be done until groundwater can be tied in with soils.

Groundwater Remedial Investigation for TNT A, B and C & Red Water Ponds Areas

The fourth round of sampling was completed in mid-July 2002. The Draft First Annual Data Summary and Evaluation Report was distributed in late August 2002 and comments have been received. LRH and LRN met with OEPA in mid-September 2002 and it was agreed between OEPA and USACE to sample the background wells in October 2002 (completed) and April 2003. LRN issued an RFP to their contractor for "Continued Groundwater Remedial Investigation (RI), Background and Off-site Downgradient Groundwater"; the Delivery Order is to be awarded by mid-March

The Final 2002 Groundwater Data Summary and Evaluation Report was issued in late June 2003. Background wells were sampled in April 2003; the Sixth Quarterly Background Report was distributed in late July 2003. The Final Work Plans for Continued Groundwater Remedial

Investigation, Background and Off-site Downgradient Groundwater were distributed in late July 2003. Fieldwork was completed in mid-August 2003 for the installation of two (2) background wells and the sampling of seven (7) locations for background PAHs; these locations were all outside the PBOW boundary fence. The private off-site well survey has been completed by LRH and their contractor. Five (5) off-private wells were sampled for nitroaromatics in mid-September; one of these well is being sampled again in spring 2004 after the owner removes the weatherproofing from the well. This data will be used to assist us in locating the downgradient monitoring wells. Installation of downgradient wells is on hold until the right-of-entries are obtained.

Reservoir No. 2 Burning Ground

The Delivery Order was issued to Jacobs Engineering in late December 2003.

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A RAB meeting was held on November 13, 2003 at the PBOW site. The meeting attendees observed operation of the composting of the TNT Area B soils. There were no formal presentations on the agenda. The next RAB meeting is scheduled for March 2004.

Project Team Meetings

A full team meeting was held in mid-September 2003 in Sandusky at NASA.

PBOW WEBSITE

USACE Huntington continues to maintain the website which is dedicated to keeping the public informed about the PBOW activities. This site is being updated regularly with new project information, as well as the PBOW fact sheets, investigation schedules and the Annual FUDS Newsletter. To find out the latest news on the PBOW project, please visit the website at the following address: www.lrh.usace.army.mil/PM/PBOW.

PBOW TOLL FREE NUMBER

USACE Huntington has a toll-free number in place for your use. If you have any information such as personal knowledge, photographs, maps, newspaper articles of past activities or other information you would be willing to share, or you just have questions about current activities at the site, please feel free to use the toll free number. We're interested in hearing from you, so call toll free 1-800-822-8413 and ask for Lisa Humphreys or Frank Albert.

PROJECT CONTACT

The PBOW Project Manager is Richard L. Meadows, Huntington District (CELRH-PM-P) at (304) 529-5388, fax (304) 529-5715 or via email at Richard.L.Meadows@Lrh01.usace.army.mil. He may be reached during the hours of 8:00 a.m. to 5:00 p.m, Monday - Friday. You may also call the toll free number listed above and ask to be transferred directly to his office.