

PLUM BROOK ORDNANCE WORKS

Restoration Advisory Board

Quarterly Fact Sheet

April through June 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. Currently, an interim soil removal action is underway for the PRRWP Area as well as associated investigations to determine further extent of contamination in those areas that have exceeded the Feasibility Study-outlined limits. USACE will pursue completion of the Interim Soil Removal Action (which includes additional excavation and disposal of additional contamination limits) as funding becomes available. See Groundwater Remedial Investigation below for an update on groundwater activities for these areas.

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

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. Currently, an interim soil removal action is underway for the TNT Area B as well as associated investigations to determine further extent of contamination in those areas that have exceeded the Feasibility Study-outlined limits. USACE will pursue completion of the Interim Soil Removal Action (which includes additional excavation and disposal of additional contamination limits) as funding becomes available. See Groundwater Remedial Investigation below for an update on groundwater activities for these areas.

TNT Area A and TNT Area C - Remedial Investigation/Feasibility Study – Action Memorandum - Interim Soil Removal Actions – Draft Decision Document (Groundwater / Soils)

The Final FS was completed in August 2003. 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. In anticipation of receiving available fiscal year-end funding, the Draft Action Memorandum, which outlined the interim soil removal efforts needed to remove the contaminated soil from the TNT Areas A and C, was prepared and presented to the public on May 10, 2004 at BGSU Firelands in Huron, Ohio. This meeting documented the beginning of the 30-day public review and comment period which is required prior to beginning field efforts for an interim soil removal. No comments were received during this period; therefore the Final Action Memorandum will be finalized in July 2004. USACE will pursue the Interim Soil Removal Action as funding becomes available. See Groundwater Remedial Investigation below for an update on groundwater activities for these areas.

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

The Final 2002 Groundwater Data Summary and Evaluation Report was issued in June 2003. Background wells were sampled in April 2003; the Sixth Quarterly Background Report was distributed in July 2003. The Final Work Plans for Continued Groundwater Remedial Investigation, Background and Off-site Downgradient Groundwater were distributed in 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 soil PAHs. The background wells and soil sampling location were all outside the PBOW boundary fence.

The 9th Quarterly Background Report was submitted in early June 2004. Installation of off-site downgradient wells was completed in early April 2004. The 10th Quarterly Background sampling activities were completed in mid-June 2004, with the downgradient well sampling scheduled for August 2004. Three of the five off-site, downgradient wells were abandoned as they did not produce sufficient quantities of groundwater. Wet season well sampling of the two off-site downgradient wells was completed in May 2004, and the dry season sampling of the same wells is scheduled for August 2004. The Groundwater Risk Assessment will begin when all sampling is completed and the analytical results finalized (anticipated for Oct 2004).

The private off-site well survey was completed by LRH and their contractor. Five (5) off-site private wells were sampled for nitroaromatics in mid-September (2003); Nitroaromatics were not detected in the well water samples, except for one field duplicate sample. This well is scheduled to be sampled again in summer-fall 2004.

Reservoir No. 2 Burning Ground – Remedial Investigation Part 1

Fieldwork in Reservoir No. 2 Burning Grounds began in May 2004. Soil and sediment sampling was completed in the May 2004 timeframe. The installation of 3 groundwater monitoring wells was completed in June 2004. Groundwater sampling is scheduled to begin mid-late July 2004.

Acid Areas – Remedial Investigation Part 1

Contingency funding was received to award a Delivery Order to begin the Remedial Investigation for the West Area Acid Areas. A Scope of Work (SOW) for the project was developed and the Request for Proposal (RFP) was submitted to the contractor. The award of the contract is expected to be finalized mid-July 2004.

Restoration Advisory Board

RAB meetings are scheduled when sufficient technical information is available to present to the community members. The date for the next RAB meeting has not been finalized; however, the next RAB meeting is expected to be scheduled for late September 2004. A notice of the next scheduled RAB meeting will be published in the Sandusky Register.

Project Team Meetings

A full team meeting was held April 1, 2004 in Sandusky. Representatives from NASA, OEPA, and USACE Huntington and Nashville Districts and their contractors were in attendance.

PBOW WEBSITE

USACE Huntington continues to maintain the website which is dedicated to keeping the public informed about the PBOW activities. This site is 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/projects/current/derp-fuds/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 if you have questions about current activities at the site, please feel free to use the toll free number. USACE is interested in hearing from you, so call toll free (800) 822-8413 and ask for Lisa Humphreys.

PROJECT CONTACT

The PBOW Project Manager is Richard L. Meadows in the Huntington District (CELRH-PM-P). You may contact him at (304) 399-5388, fax (304) 399-5715 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.