

**FORMER NEBRASKA  
ORDNANCE PLANT**

**NEBRASKA**

**EPA ID# NE6211890011**

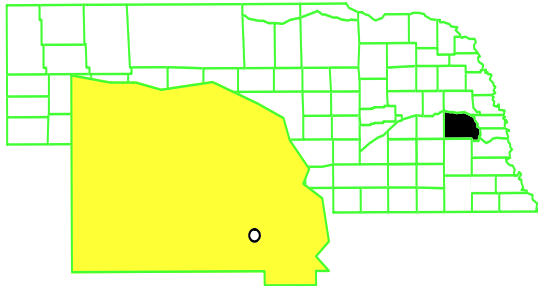
**EPA Region 7**

**City: 1/2 mile south of Mead**

**County: Saunders County**

**Other Names: Mead Ordnance Plant;  
University of Nebraska, Agricultural  
Research and Development Center  
(ARDC); Nebraska Ordnance Plant  
(Former)**

**03/13/2009**



**SITE DESCRIPTION**

The 17,000-acre Nebraska Ordnance Plant site operated from 1942 to 1956 as a munitions production plant during World War II and the Korean War. Army operations included loading, assembling, and packing of munitions at four load line facilities. The plant was also used by the Army for munitions storage and ammonium nitrate production. The Air Force built and maintained three Atlas missile silos at the facility from 1959 to 1964. Some of the processes associated with the Air Force operations used organic solvents. Beginning in 1962, portions of the plant were sold to various entities. Today, the major production area of the former plant, approximately 9,000 acres, belongs to the University of Nebraska, which operates their Agricultural Research and Development Center (ARDC) at the site. During the operations of the ARDC, the University disposed of low-level radioactive wastes, other chemicals, and solid wastes on site. The remaining acreage is owned by the Nebraska National Guard and numerous individuals and corporations. Approximately 400 people obtain drinking water from wells located within 3 miles of the site. Public water supply well fields which serve the cities of Ashland and Lincoln are located just south of the site. In addition, the construction of a new well field to serve the city of Omaha at a location northeast of the site is nearly complete. The well field began operating in mid-2008. Groundwater also is used for crop irrigation and livestock watering.

**Site Responsibility:**

This site is being addressed through Federal and potentially responsible parties' actions, with oversight conducted by the EPA and the Nebraska Department of Environmental Quality.

**NPL LISTING HISTORY**

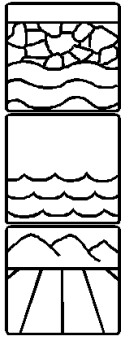
**Proposed Date:** 10/26/89

**Final Date:** 08/30/90

**Deleted Date:**

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## THREATS AND CONTAMINANTS



The groundwater is contaminated with volatile organic compounds (VOCs) and explosives. Residential water supply wells have been contaminated. Public water supply systems may be threatened. The majority of soil contamination has been previously remediated, however, unexploded ordnance may remain a concern at the site. People who have direct contact with or ingest contaminated groundwater or soil may be at risk.

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## CLEANUP APPROACH

### Response Action Status

**Emergency Actions:** In 1989, the U.S. Army determined that a private well was contaminated. The EPA immediately responded by providing the owners with bottled water, which later was provided by the Army. The Army has since installed carbon filtration systems at that residence and several other residences whose water supplies have been impacted by site contamination. The Army completed actions in 1997 to remove PCB-contaminated soils from the site.

**Soils:** The Army began an investigation in 1991 to determine the nature and extent of soil contamination at the site. The investigation was completed in 1993. A final cleanup remedy was selected in the fall of 1995, and was completed in 1998. The remedy involved the on-site incineration of 16,500 cubic yards of explosive-contaminated soils.

In addition to the Army's cleanup work, University of Nebraska (NU) has been conducting cleanups to address buried wastes at their ARDC. Work began in late-2007 to remove wastes buried at four ARDC areas. This waste was excavated and disposed at approved off-site facilities by early 2008. NU is continuing investigations at the ARDC, primarily to address a former landfill used by both NU and the Army.

**Groundwater:** The Army conducted an investigation into the nature and extent of groundwater contamination at the site in 1994. The proposed cleanup remedy was made available for public comment in the fall of 1995. A Record of Decision (ROD) selecting the cleanup action was signed in April 1997. The final remedy addresses contaminated groundwater using pump and treat technology. The remedy will hydraulically control migration of the contaminant plume by extracting contaminated groundwater, and treating the groundwater on-site. In addition, "hot

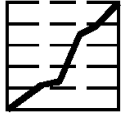
spots", or areas of relatively highly contaminated groundwater, will be extracted and treated to expedite the cleanup. Many elements of the plume containment portion of the remedy have been operational since 2002. The final components of the containment system, which were installed at the western contaminant plume, began operations in 2006. The performance of the containment system was evaluated in 2007. It was determined that the contaminant plume was not completely hydraulically contained. The Army is planning to install two additional extraction wells in 2009 to address this containment issue. The details of the "hot spot" treatment portion of the groundwater remedy are also being evaluated. A "hot spot" or "focused extraction" well began operations in the spring of 2008 in the western TCE plume. A second such well is planned for the eastern TCE plume in late-2009/early-2010.

**Site Facts:** The Former Nebraska Ordnance Plant site is participating in the Defense Environmental Restoration Program, a specially funded program established by the Department of Defense (DOD) in 1978 to identify, investigate, and control the migration of hazardous contaminants at military and other DOD facilities. The Nebraska Ordnance Plant is a formerly-owned DOD facility, and is addressed under the Formerly Used Defense Sites (FUDS) program, which is managed by the Army Corps of Engineers. A CERCLA Federal Facility Agreement between the EPA, the state of Nebraska, and the Army Corps of Engineers was signed in 1991 to coordinate cleanup responsibilities. An agreement for the investigation and cleanup of wastes associated with the University ARDC was signed in early-2005. Investigatory work by the University began in late-2005. The University began cleanup actions at four waste disposal sites in the fall of 2007.

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## ENVIRONMENTAL PROGRESS

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The Corps of Engineers has provided bottled water and installed carbon filtration systems on residential water supplies that have been impacted by site contamination. These actions eliminate exposures to contamination while the groundwater cleanup is underway. The groundwater cleanup remedy has been selected, and elements of the containment portion of the remedy have been operational since 2002. The groundwater containment system helps to prevent further spread of contamination towards other groundwater supplies.

The implementation of the operable unit #1 remedial action, the incineration of 16,500 cubic yards of explosives contaminated soils, along with the removal of "hot spots" of PCB-contaminated soils have eliminated the potential for direct exposures to soil contamination over a majority of the site. Further, it has eliminated the migration of contamination from soils to groundwater.

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## COMMUNITY INVOLVEMENT

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A Restoration Advisory Board (RAB) was formed by the Army and has operated at the site for several years. The RAB provides an opportunity for community involvement in cleanup activities at the site. The RAB had been meeting on a quarterly basis, however, regular meetings were halted in October 2007, pending development of a RAB Operating Charter. No formal RAB meetings were held in 2008, however, the Corps has held quarterly Open House sessions at the site since the RAB meetings ceased. EPA participates in these Open House sessions. The future direction of the RAB is presently unclear. Interested persons should contact the Corps or the EPA if they would like to participate on the RAB.

The Army revised the Community Involvement Plan for the site in 2008, based on community interviews that were conducted in late-2007.

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## SITE REPOSITORY



Ashland Public Library, 207 North  
15th Street, Ashland, NE 68003 (402)  
944-7430

Superfund Records Center  
901 N. 5th St.  
Kansas City, KS 66101  
Mail Stop SUPR

Mead Public Library, 316 South Vine  
Street  
Mead, NE 68041 (402) 624-6605

(913)551-7166

## REGIONAL CONTACTS

**SITE MANAGER:**

Ken Rapplean

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**PHONE NUMBER:**

(913) 551-7769

**COMMUNITY INVOLVEMENT**

Debbie Kring

**COORDINATOR:**

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**STATE CONTACT:**

Ed Southwick, Nebraska Department of  
Environmental Quality

**PHONE NUMBER:**

(402) 471-4875

## MISCELLANEOUS INFORMATION

**STATE:**

NE

077R

**CONGRESSIONAL DISTRICT:**

01

**EPA ORGANIZATION:**

SFD-SUPR/FFSE

## MODIFICATIONS

**Created by:**

Karla  
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