United States Environmental Protection Agency
Region VI
POLLUTION REPORT

Date: Wednesday, June 22, 2005
From: Rita Engblom

Subject: Removal Assessment
Osage Power Plant
1415 East Fountain Road, Ponca City, OK
Latitude: 36.6543100
Longitude: -97.0644310

POLREP No.:	1	**Site #:**	OKD987071248
Reporting Period:		**D.O. #:**	
Start Date:	4/14/2005	**Response Authority:**	CERCLA
Mob Date:		**Response Type:**	Time-Critical
Demob Date:		**NPL Status:**	Non NPL
Completion Date:		**Incident Category:**	Removal Assessment
CERCLIS ID #:	OKD987071248	**Contract #**	
RCRIS ID #:			

Site Description

The Osage Power Plant (formerly Lincoln Beerbower Plant) site located at 1415 East Fountain Road in Ponca City, Oklahoma. The property consists of an approximately 43,000 square feet coal-burning power generation building bordered by the Arkansas River on the east side. The nearest residence is located approximately ½ mile south of the site. The land surrounding the site is relatively uninhabited, although Continental Carbon and a Conoco-Phillips refinery are located within a mile of the site. The 28 acres site perimeter is fenced, however the site is not secure from tresspass. The site is accessible from gaps in the fence and the Arkansas River bank. Doors to the building are unlocked and all of the windows panes are gone or filled with bullet holes. There is evidence of trespass in the building: vandalism, campfires, beer cans and graffiti.

The Osage Power Plant was a coal-burning power plant built in 1919 which generated power by coal-burning until 1986. The plant was originally owned by Oklahoma Gas and Electric (OG&E). The site consists of a nine-story inactive power plant, a power substation, and a Quonset hut. The plant contains approximately 1,200 cubic yards of friable asbestos estimated during past investigations. Potential burn or burial pits were indicated as areas of stained soil to the west of the plant in historical aerial photographs. The power substation is owned and operated by Oklahoma Gas and Electric (OG&E). The Quonset hut contained asbestos insulation according to prior investigations.

On July 27, 1989 the Oklahoma Department of Labor (ODOL) was notified of an asbestos problem at the plant by the Oklahoma State Department of Health (OSDH). Reportedly, ODOL inspectors were denied entry to the plant by Osage Properties, Inc. (the owner at that time) employees armed with firearms on 28 July 1989. Escorted by the Kay County Sheriff, Undersheriff, and two Deputies, the ODOL inspectors were allowed entry to the plant on 28 July 1989. The ODOL inspectors witnessed approximately 300 cubic yards of insulation, assumed to be asbestos, released inside the plant and on the ground outside the building. Twelve samples of the released insulation material were collected and tested positive for friable asbestos. ODOL ordered the plant sealed and evacuated all personnel onsite. A Notice of Violation, Complaint, and Order for violation of the National Emission Standards for Hazardous Air Pollutants (NESHAP) requirements for asbestos was filed by OSDH.

In April 1990, representatives from the EPA, Technical Assistance Team (TAT) and OSDH Air Quality Service conducted a joint inspection of the facility. The inspectors discovered bags of dry, friable insulation and debris in bags and throughout the facility. Analytical results from samples collected of the insulation confirmed that the substance was asbestos. At that time it was determined that the building was secured (windows were not broken and there were no signs of tresspass) and the site was referred to the Department of Justice for asbestos NESHAP violations under the Clean Air Act.

On March 11, 2005, the Oklahoma Department of Environmental Quality (ODEQ) requested EPA removal assistance at the site, noting that hazardous susbstances at the site were no longer secure.

Current Activities

On April 14, 2005, EPA and Superfund Technical Assistance and Removal Team (START-2) contractors entered the building in level C personal protective equipment (PPE) and conducted a structural integrity survey, radiation survey, and performed air monitoring of the interior of the building. Deterioration and destruction was noticeable in several areas of the interior. Visual observations indicated asbestos insulation throughout building and in close proximity to the broken windows of the facility. The majority of the glass has been removed from the windows allowing access into the building and allowing asbestos particles to exit the facility.

Radiation levels of 30-40 R/r (3 to 4 times background readings) were detected in the southeast corner of the first floor of the Osage Power Plant causing the reconnaissance team to leave area for safety reasons. EPA observed signs of human habitation on several floors of the building (i.e. graffiti and beer cans).

On June 21 2005, the EPA and START-2 contractors mobilized to the Osage Power Plant to perform a detailed radiation survey of the building to determine if there was a source of radiation. Access to the site through the south gate was restricted by a locked gate. Access to site was obtained instead, through the north gate. Vegetation was cleared on the west side of the building and on the south side of the building, near the "boat-ramp" on the Arkansas River. Several doors to the facility were unlocked and open. Water, presumably from the Arkansas River, previously observed flowing into the first floor of the plant on the east side was not flowing during the site visit. Water from a pipe on the southwest side of the first floor was leaking onto the floor creating 2-4" of standing water on the floor. New signs of human habitation were observed (i.e. beer cans and graffiti).

The EPA and START-2 contractors entered the plant building in level C PPE and utilized a Ludlum-192 radiation meter for the radiation survey. Background radiation level at the site was approximately 10 µR. The stairwell located on the first floor on the northeast side of the building contained radiation levels that did not exceed 25 µR. The radiation level of 25 µR was detected on an exterior brick wall approximately five feet high, 2-3 steps down the stairs. No staining, piping, or any structure was visible in the area of the elevated radiation reading, inside the stairwell or on the opposite side of the wall. Radiation levels on the opposite side of the wall did not exceed background levels. On the north side of the third floor, a radiation level of 22 µR was detected on an exterior brick wall near the elevator shaft. The elevated radiation level was restricted to the brick wall approximately five feet high and within a 6-12 inch area of the wall. No visible radiation source could be located. A radiation survey of the floors surrounding the two locations with increased radiation levels did not reveal a radiation source and radiation levels throughout the building did not exceed 15-20 µR. No source of radiation was found. Radiation in the building was below the EPA action guideline for radiation of 1 mR. Therefore, further assessment work inside the building may continue.

The EPA also identified property owners (i.e. residents and business owners) near the site and recorded name, address, GPS coordinates, drinking water source, and took digital photographs of the homes within approximately 1-mile surrounding the site.

Next Steps

The EPA is developing a sampling plan to conduct a site inspection to determine if the site should be ranked on the National Priorities List. Additional removal assessment activities include investigation of former waste pits and stained areas identified in historical aerial photography, quantifying of asbestos containing materials and development of an asbestos abatement plan.

Key Issues

Current conditions at the site represent an imminent and substantial endangerment to human health. Further assessment is required to accurately delineate additional environmental threats throughout the site (i.e. former coal pits and Arkansas River).

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