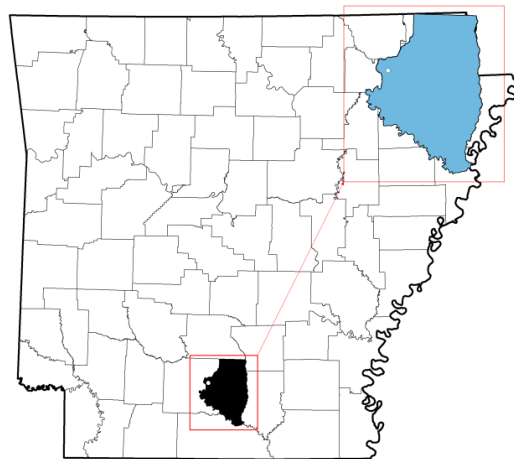




## STATE PRIORITY LIST SITE SUMMARY

Arkansas Department of Energy & Environment, Division of Environmental Quality  
5301 Northshore Drive, North Little Rock, AR 72118

**Facility Name:** BEI Defense Systems, INC.  
**Facility Location:** East Camden, Arkansas  
**EPA RCRA ID No:** ARD980583470  
**AFIN:** 52-00163  
**County:** Calhoun  
**Arkansas Senate District:** 27  
**Arkansas House District:** 7  
**US Congressional District:** 4



### CURRENT STATUS

DEQ has re-evaluated the results of previous investigations and risks involved with contaminated soils and groundwater. Risks were determined to be within the acceptable USEPA target risk range for future on-site workers with the exception of groundwater use. Several groundwater contaminants exceed their respective USEPA maximum contaminant level (MCL) or tapwater screening level. DEQ is currently pursuing restricting the site to industrial use only and restricting the groundwater from potable uses. If either of these restrictions is unattainable, active remediation may be required to mitigate potential risks. Continued groundwater monitoring may be necessary to monitor groundwater contaminant migration and natural attenuation.

### STATE PRIORITY LIST HISTORY

BEI leased the facility from Highland Industrial Park, Inc. starting in 1966 and suspended ordnance plant operations on August 30, 1996. BEI generated waste from rocket production and warhead assembly operations and then burned these wastes in a Burn Area located in the northeast corner of the BEI facility. The primary wastes that were burned in the Burn Area

included paint wastes, paint stripper, and stencil ink residue; spent 1,1,1 trichloroethane; off-specification rocket propellant grains, grenades, and miscellaneous explosives; and cadmium-contaminated rags. Wood and paper products were also burned in this area on an “as-needed” basis. A Consent Administrative Order (CAO) (LIS 89-147) was issued in 1989 between BEI and the Arkansas Department of Pollution Control and Ecology (ADPC&E) for the Burn Area. The order required BEI to investigate and remediate the area. The investigation, removal, and off-site disposal of metal-contaminated soil took place in late 1990 and early 1991. BEI contracted with FTN in April 1996 to perform a site review for the purpose of assessing environmental conditions at the facility prior to transferring the property to a new lessee. Findings of the review resulted in a groundwater investigation. The Division of Environmental Quality (DEQ), through the Arkansas Pollution Control and Ecology Commission (APC&EC), added the site to the Remediation category of the States Priority List on January 29, 2009. This measure was taken in order to determine risks and remediate the known hazardous substances in the site soils and groundwater as needed.

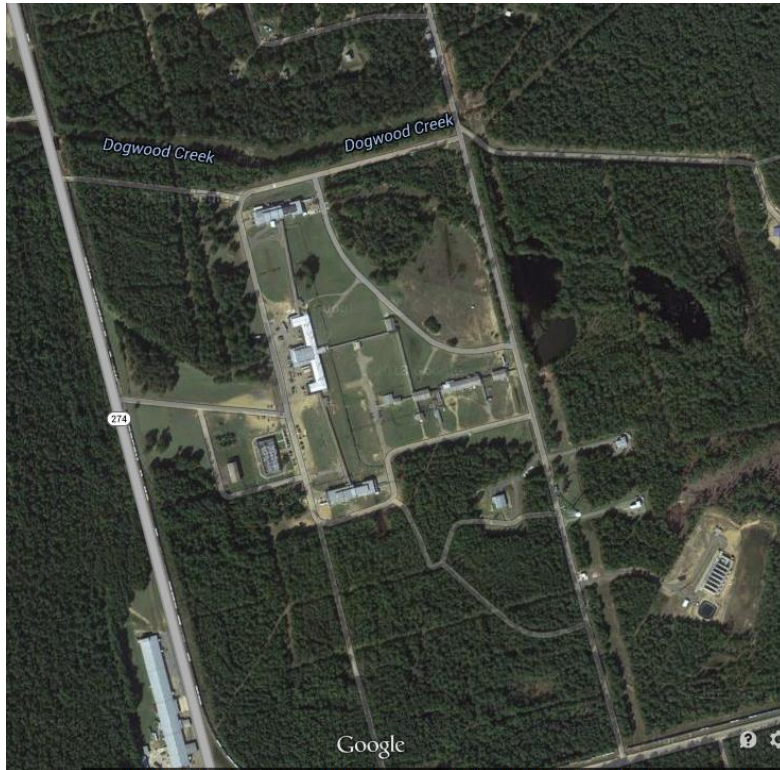
## **SITE DESCRIPTION**

**Location:** The BEI site is located in Highland Industrial Park approximately 2 miles northeast of East Camden Arkansas in Calhoun County (T13S, R15W, Section 7). The address is Highway 274 12m E Ind. Park, East Camden, Arkansas, 71701.

**Population:** Estimated population of East Camden is 931.

**Setting:** The BEI facility is located in Highland Industrial Park which encompasses approximately 17,000 acres of an original 65,000 acres that was formerly the Shumaker Naval Ammunition Depot which operated from 1944 to 1957. The old depot was converted to an industrial park in 1965. BEI leased the facility from Highland Industrial Park in 1966. The BEI facility occupies approximately 120 acres within the Highland Industrial Park, including four manufacturing and administrative buildings, along with various storage buildings.

**Hydrology:** The industrial park area is characterized by flatlands and timber covered hills located in the Two Bayou Creek Watershed. Two Bayou Creek flows approximately 6 miles south and empties into the Ouachita River in an area southeast of Camden. Numerous ditches have been constructed and creek flow modified to provide drainage for the industrial park. The BEI site is drained by ditches that flow under Byrnes Road and eventually into Dogwood Creek. Dogwood Creek is located on the northern side of the BEI facility and drains in a west-southwesterly direction to its confluence with Two Bayou Creek approximately 2 miles from the Burn Area.

**Aerial Photo:****WASTE AND VOLUMES**

BEI's primary wastes that were burned from 1966 to 1996 in the Burn Area included paint wastes, paint stripper, and stencil ink residue; spent 1,1,1 trichloroethane; off-specification rocket propellant grains, grenades, and miscellaneous explosives; and cadmium-contaminated rags. Wood and paper products were also burned in this area on an "as needed" basis. Field investigations for a Comprehensive Site Assessment (CSA) were conducted in April and May of 2010 to evaluate soil and groundwater samples from the former Burn Area. Eight (8) volatile organic compounds (VOCs) were detected; four (4) of which exceeded groundwater screening criteria: 1,1-Dichloroethane, 1,2-Dichloroethane, 1,1-Dichloroethylene, and 1,1,2-Trichloroethane. The total VOC groundwater plume is estimated to encompass an area of approximately 140,280 square feet, or 3.2 acres. Two (2) metals exceeded groundwater screening criteria at MW-5: manganese and cobalt. One explosive compound exceeded groundwater screening criteria at MW-6: RDX. Soil sampling analyses indicated no presence of VOCs in soils; five (5) semi-volatile organic compounds (SVOCs) exceeded surface soil screening criteria; arsenic exceeded subsurface soil screening criteria.

**HEALTH CONSIDERATIONS**

Contaminants in groundwater exceeding groundwater screening criteria could pose a potential risk to groundwater users in the area. Past operations in the Burn Area may have affected groundwater quality in a 3.2 acre area beneath the site. Based on metal analyses, approximately

6 inches of soil was excavated from the Burn Area for stabilization and offsite removal in accordance with the Closure Plan in 1991. The source area, therefore, was likely removed during 1991 soil excavation closure activities, volatilized, or degraded to concentrations below detection levels. In addition, soil was excavated from the interim burn box area in November 1997 as part of closure activities. A minimum of six (6) inches of soil, and greater than two (2) feet in some areas was removed. Cleanup action may be limited to groundwater remediation.

## **DEQ RESPONSE ACTIONS**

The site is listed on the State Priority List to ensure the remediation of any risks to human health and the environment. Camp, Dresser & McKee (CDM) was contracted by DEQ to perform investigation at this site. DEQ approved the Comprehensive Site Assessment (CSA) Scope of Work (SOW) on February 22, 2010. The SOW included conducting investigative activities, evaluating available information and data and preparing a CSA report. CDM submitted the CSA Work Plan (CSAWP) on March 16, 2010. On the property, there is one small structure from the former manufacturing facility, an open burn area, and a burn box within the Burn Area. The CSAWP was approved on April 6, 2010. The final CSA Report was submitted in June 2010. Aerojet Corporation leases the property surrounding the former BEI lease. Aerojet performed additional perchlorate and volatile organic compounds groundwater sampling in April and June, 2012, on Aerojet property, down-gradient of the Burn Area, to determine the extent of contamination associated with the former BEI site. Based on the results of this sampling, contamination had not migrated offsite in the area where groundwater was sampled.

## **DEQ ANTICIPATED FUTURE ACTIVITIES**

A limited evaluation has been conducted of the environmental risks posed by contaminants at the Burn Area. This information may be used to develop proposed groundwater protection standards. Institutional controls to prohibit the use of groundwater are currently being considered for this site. Should institutional controls be unattainable, the feasibility and cost of technologies available to meet cleanup objectives will be evaluated and the preferred remedial option(s) may be selected.

## **SITE CONTACTS**

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