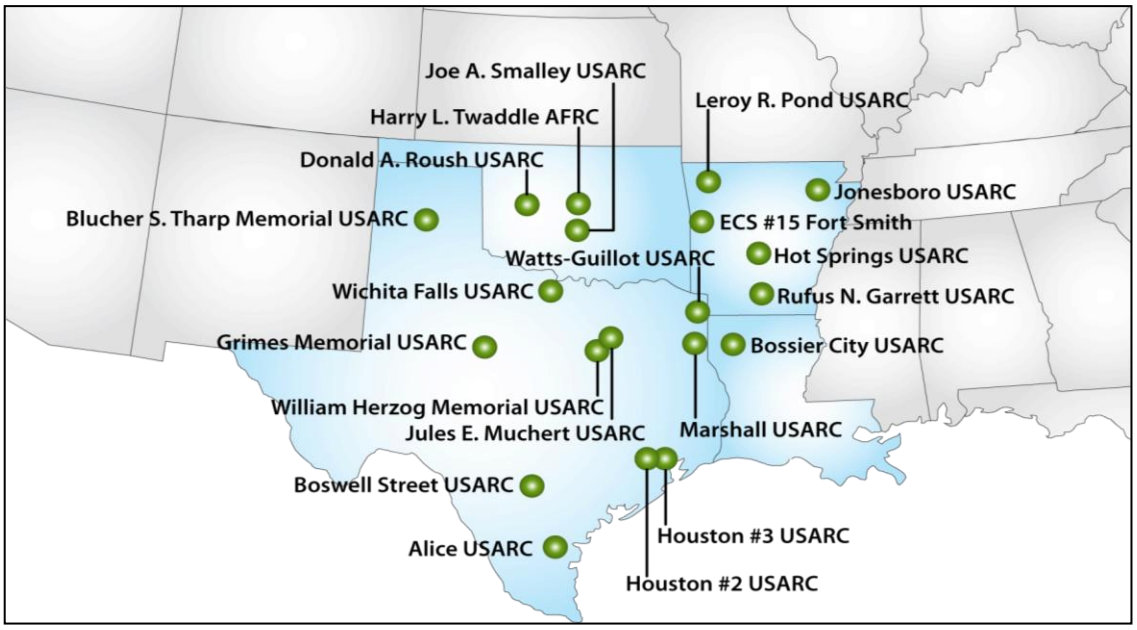
Environmental Contamination, Remediation, and Reuse Fact Sheet

for Region 6 Army Reserve Centers Being Closed Under BRAC 05

August 2010

Background

Approximately 20 former U.S. Army Reserve Centers (ARCs) in Arkansas, Louisiana, Oklahoma and Texas are located on federal property and are being closed as a result of the Base Realignment and Closure Act of 2005 (BRAC 05).



Army Reserve Centers are primarily used to train military personnel. The majority of these centers consist of a main administrative building and a training facility. Some also have, or have operated, vehicle maintenance structures, including wash racks. Additionally, small arms firing ranges may be found in these ARCs. Miscellaneous storage facilities may also be present.

Environmental Conditions

Due to the activities conducted, or the type and age of structures or utilities present, some level of environmental contamination can usually be expected at ARCs. Contamination may include asbestos-containing materials, lead-based paint, lead dust, military munitions, polychlorinated biphenyls, underground or above-ground storage tanks, oil/water separators, petroleum storage containers, pesticides or herbicides, and/or radon or radiological materials. The U.S. Environmental Protection Agency (EPA) reviewed documentation provided by the U.S. Army Reserve from 20 former ARCs shown on the map on page 1 for evidence of environmental contamination. This table is a summary of contamination sources identified from EPA's review.

Contamination Sources	Found at Number of ARCs
Asbestos-Containing Materials	20
Military Munitions	7
Lead-Based Paint	20
Polychlorinated Biphenyls (PCBs)	14
Pesticides/Herbicides	10
Petroleum Storage Containers	14
Radon/Radiological Materials	20

A summary follows of the various types of contamination that may be, or may have been, present at former ARCs, and contamination concerns that should be considered before reusing these properties.

Asbestos Containing Material (ACMs): Asbestos has long been recognized as a health threat to humans because the fibers can be inhaled and are difficult to remove from the lungs. Significant exposure to any type of asbestos will increase the risk of lung cancer, mesothelioma, and nonmalignant lung and pleural disorders, including asbestosis, pleural plaques, pleural thickening and pleural effusions.* These tiny fibers are only dangerous if they are disturbed, causing fibers to float in the air and allowing them to be easily inhaled – these are known as friable asbestos.

Asbestos Fibers

All 20 ARCs were found to contain some form of ACM. Much of the abatement for friable asbestos has been performed. However, documentation of abatement activities for ACM, whether friable or non-friable, was not available in some cases.

Military Munitions: Military Munitions may include confined gaseous, liquid and solid propellants; explosives; pyrotechnics; riot control agents; smokes and incendiaries, including bulk explosives; rockets; guided and ballistic missiles; bombs; warheads; mortar rounds; artillery ammunitions; small arms ammunition; grenades; mines; torpedoes; depth charges; cluster munitions and dispensers; demolition charges; and associated devices and components. Munitions and explosives of concern (MEC) consist of two distinct types of military munitions with unique explosive safety risks: unexploded ordnance and discarded military munitions.

Small Arms Range

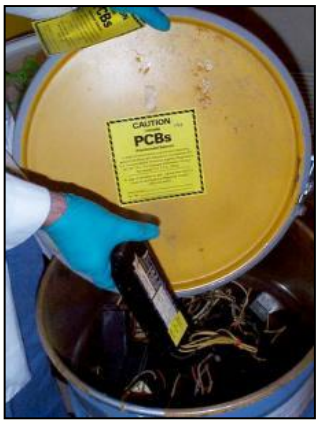
No evidence of MEC has been found at any of these 20 ARCs. Seven out of the 20 ARCs operated indoor firing ranges; however, these facilities were used only for small arms firing practice and do not qualify as MEC. All indoor firing ranges were decommissioned, remediated, and reused for purposes other than human occupancy. Because these former indoor firing range spaces may not have been cleaned sufficiently, they may not be suitable for offices, classrooms, childcare facilities, etc.

Lead-Based Paint (LBP): LBP is usually found in buildings constructed before 1978. Exposure to lead can damage the central nervous system, cardiovascular system, reproductive system, blood system and the kidneys.*

Testing for Lead-Based Paint

Environmental investigations conducted at the ARCs determined that all 20 once contained LBP. LBP was identified in various materials and surfaces. For the most part, the paint was in good condition in regard to cracking and peeling, which minimizes the risk of contamination. However, over time, the condition of the paint can deteriorate, and because several years have passed since the LBP was last inspected, its condition could have deteriorated. Additionally, areas near doors or windows could have lead-containing paint dust generated from the friction of surfaces. The few areas where deteriorated LBP was identified were mostly abated; however, documentation in certain cases was not available. Human activity such as maintenance, remodeling or repainting that disturbs the LBP also could potentially create a source of exposure.

Polychlorinated biphenyls (PCBs): PCBs are mixtures of up to 209 individual chlorinated, aromatic hydrocarbon compounds. PCBs have been used as coolants and lubricants in transformers, capacitors and other electrical equipment because they do not burn easily and are good insulators. The manufacturing of PCBs was stopped in the United States in 1977 because of evidence that they accumulate in the environment and can cause harmful health effects. Products made before 1977 that may contain PCBs include old fluorescent lighting fixtures and electrical devices containing PCB capacitors, and old microscope and hydraulic oils.



Disposal of PCB - Containing Items

Some of the transformers and some fluorescent light fixtures at 14 of the 20 ARCs have been identified as possibly containing PCBs. For most of the pole-mounted transformers, no leaks were indicated; however, this was typically based on visual observation without soil analysis. For the one pole-mounted transformer where a leak was identified, the contaminated soil was removed and disposed of off-site. Any light ballast not marked with "No PCBs" should be assumed to contain PCBs and management and disposal of these pole-mounted transformers and/or light ballasts must be in accordance with local, state and federal requirements.

Pesticides/Herbicides: Pesticide application was indicated to have only been provided through contracted pesticide services. At one of the ARCs, herbicide was used to suppress vegetation along fence rows. Although there was no mention of used oil being used as an herbicide, such practices were not uncommon before being banned and potentially could have been used at the ARCs. Because soil sampling for herbicides or pesticides was not indicated for any of the ARCs, it is unknown if residuals of these substances exist that could potentially impact public health or the environment.


Vegetation Suppression Along Fence Line

Petroleum Storage Containers: Underground storage tanks (USTs) and above-ground storage tanks (ASTs) are used to store petroleum or hazardous substances that can harm the environment and human health if released. Oil/water separators (OWSs) treat vehicle and floor wash water by allowing substances lighter than water to float and substances heavier than water to sink.


Above-Ground Petroleum Storage Tanks

Most of the petroleum storage containers found at the 14 ARCs have been removed. There have been no indications of ongoing UST, AST, or OWS problems. Only minimal residual stains and deposits remain. However, there was little indication that soil or groundwater analysis had been conducted at the maintenance areas in which the petroleum storage containers were typically located.

Radon/Radiological Materials: Radon is a naturally occurring radioactive gas that is odorless and tasteless. Radon tests have been performed at most of the ARCs, and levels were below EPA's recommended action levels.

Radioactive equipment is also stored at some of the ARCs in clearly marked storage areas. No evidence was identified of any releases associated with radioactive materials stored at these ARCs.

Removal of Radiological Materials

Reuse of Former Army Reserve Centers

The ARC facilities being closed under BRAC 05 are being proposed for a variety of reuses, including industrial, commercial, administrative, educational, social services, medical services, law enforcement, fire fighting and recreational. The actual reuses identified or proposed for the ARCs surveyed for this fact sheet are listed in the Army Reserve Facility Reuse Table. Most of the facilities are being transferred to non-federal ownership - mainly local governments. However, six of the facilities are being retained for federal government functions. Although most of the remediation of known contamination has been conducted at the various ARC facilities and no significant contamination issues were identified, there has been no explicit determination as to whether or not the individual facilities meet residential or industrial use standards and requirements.

Questions & Answers:

Who currently manages the environmental remediation for these facilities?

The federal government is responsible for managing any remediation activities.

Has the contamination been addressed?

The majority of known contamination has been addressed or required no action. However, there are areas where no soil or groundwater sampling has been conducted and there remains the potential for contamination (e.g., vehicle maintenance shops). In addition, several years have passed since some of these materials were last inspected. Deterioration of ACMs or LBP may make them potential sources of exposure.

Who assumes responsibility for any contamination discovered after transfer?

Any contamination found after property transfer that is determined to have originated while the ARC was in operation remains the responsibility of the federal government.

Does the level of contamination pose an obstacle to reuse?

The information available was insufficient to make any explicit determinations as to whether or not the ARCs were suitable for specific reuses. With regard to the vehicle maintenance operations, there was limited soil or groundwater sampling to confirm the presence or absence of contamination. With regard to the structures themselves, updated evaluations of ACMs and LBP may be needed to confirm that deterioration has not resulted in a risk of exposure.

Where may I obtain information on any previously conducted environmental assessments?

All environmental information on these ARCs was provided to EPA by the U.S. Army Reserve. To view the Environmental Condition of Property Reports used in the development of this fact sheet, go to:
http://www.hqda.army.mil/acsim/brac/env_ecp.htm

**Information was taken from the Agency for Toxic Substances and Disease Registry (http://www.atsdr.cdc.gov).*

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Army Reserve Facility Reuse Table

Facility ID, Name and Address	Acquisition by Army Reserve	Potential or Proposed Reuse
AR009 Rufus N. Garrett, Jr. USARC 815 West 8th Street El Dorado, AR 71730	Acquired in 1959	Food bank operations
AR010 Leroy R. Pond USARC 1616 North Woolsey Avenue Fayetteville, AR 7270	Acquired in 1932	Veterans Administration support facility
AR014 ECS #15 Fort Smith 11408 Roberts Blvd. Fort Smith, AR 72903	Acquired in 1943	Department of Energy National Nuclear Security Transportation Training Center
AR020 Hot Springs USARC 200 Reserve Street Hot Springs, AR 71901	Acquired in 1943	Multi-purpose technical school
AR022 Jonesboro USARC 1001 South Caraway Road Jonesboro, AR 72401	Acquired in 1964	Education usage for Arkansas State University
LA007 Bossier City USARC 300 Miller Road Bossier City, LA 71112	Acquired in 1972	Barksdale AFB administrative use and storage
OK007 Donald A. Roush USARC 1720 Opal St. Clinton, OK 73601	Acquired in 1958	Proposed permanent location for the Jr. ROTC
OK017 Harry L. Twaddle AFRC 5316 S. Douglas Blvd. Oklahoma City, OK 73150-3409	Acquired by USAF in 1971; subsequently transferred to Army	Tinker AFB administrative use
OK020 Joe A. Smalley USARC 1507 West Lindsey Street Norman, OK 73069	Leased and then acquired in 1991	Police and fire investigation facility

TX001 Grimes Memorial USARC 4300 South Treadaway Boulevard Abilene, TX 79602	Acquired in 1958	Regional school district service center
TX002 Alice USARC 100 South Stadium Road Alice, TX 78332	Acquired in 1957	Joint training center for emergency personal
TX003 Blucher S. Tharp Memorial USARC 2801 Dunivern Circle Amarillo, TX 79109	Acquired in 1957	Public sale for unknown use consistent with commercial zoning
TX023 Jules E. Muchert USARC 10031 E. Northwest Hwy Dallas, TX 75238	Acquired in 1956	Park maintenance facility and neighborhood park
TX025 William Herzog Memorial USARC 4900 S. Lancaster Rd. Dallas, TX 75216	Acquired in 1957	Veterans Administration hospital use
TX040 Houston #2 USARC 7077 Perimeter Park Drive Houston, TX 77041	Acquired in 1958	Fire investigation facility
TX041 Houston #3 USARC 6903 Perimeter Park Dr. Houston, TX 77041	Leased in 1987 and acquired in 2000	Police Department Special Weapons And Tactics team facility
TX053 Marshall USARC 1209 E. Pinecrest Dr. Marshall, TX 75670	Acquired in 1958	Local veterans organization center and museum
TX062 Boswell Street USARC 423 Boswell Street San Antonio, TX 78214	USARC occupied the land from its development in 1962, but the property was acquired by federal government in 1993	Veterans Administration facility on portion with other portion sold publically for unknown use consistent with commercial zoning
TX072 Watts-Guillot Memorial USARC 2800 West 15th St. Texarkana, TX 75501	Acquired in 1957	Joint training center for emergency personnel
TX077 Wichita Falls USARC 3315 9th St. Wichita Falls, TX 76309	Acquired in 1941	Park and recreation maintenance facility and neighborhood park