

Analysis of Brownfields Cleanup Alternatives – Waste Disposal

Former Delta Memorial Hospital 300 Pickens Street, Dumas, Arkansas AFIN: 21-00057

I. Introduction & Background

a. Site Location

The site is located at 300 Pickens Street in Dumas, Desha County, Arkansas, in the central part of the city and in a predominantly residential area. The site is bounded on the north by Pickens Street, a residential area, and a public-school campus; to the east by a large drainage ditch and a residential area; to the south by Puryear Street and a residential area; and to the west by another residential area. The property is comprised of a flat, approximately three-acre parcel of land that is occupied by the former Delta Memorial Hospital building. The former Delta Memorial Hospital building was constructed in 1949 and is approximately 30,000 square feet in size.

b. Previous Site Use(s)

The only recorded use of the site is the operation of the Delta Memorial Hospital, which was constructed at the property in 1949. The building's exterior is of brick construction on a concrete slab with a flat roof. The interior of the hospital is a combination of concrete block and dry wall, with suspended ceiling tiles and vinyl floor tiles. The hospital included patient rooms and lavatories, offices, a kitchen and dining area, laboratories, surgical suites, a pharmacy, X-ray rooms, a chapel, a nursery, storage rooms, two boiler rooms, a mechanical room, and an emergency room.

In 1994, title of the property transferred to Desha County. Around this time, a new, more modern hospital had been constructed at a separate location in Dumas, prompting the closure of the former Delta Memorial Hospital. The original hospital building has sat empty since and has experienced extensive deterioration and vandalism over the past 30 years.

The City of Dumas enrolled the property in the Arkansas Brownfield Program in 2013, receiving a Phase I Environmental Site Assessment (ESA) and an Asbestos Inspection. Due to the lack of program funding, further assessments were not conducted, and the project became idle.

The City, in collaboration with Desha County, reenrolled into the Arkansas Brownfield Program in 2023, receiving an updated Phase I ESA, Asbestos Inspection Update, and supplemental waste sampling.

c. Site Assessment Findings

1. 2013 Phase I Environmental Site Assessment (FTN)

FTN Associates Ltd. (“FTN”) performed a Phase I ESA at the property as part of the 2013 Arkansas Brownfield Program process. The report, dated August 13, 2013, identified two Recognized Environmental Concerns (RECs) in connection with the property:

- A Kodak processor and associated filters used for the development of X-rays were located in the hospital building. These items could contain hazardous chemical constituents, including silver compounds.
- Two underground storage tanks (USTs) were permanently closed and removed according to the Environmental Data Resources, Inc. database and on-line records maintained by the Arkansas Department of Environmental Quality (“ADEQ”). However, during site reconnaissance, FTN was unable to ascertain the location of the former USTs. There is no information in the EDR data or on-line ADEQ records regarding specific tank removal or closure activities. Records indicated that the former USTs were operated between 1954 and 1989. The potential for impacts to the subsurface soil and/or groundwater beneath the property was therefore unknown.

2. 2013 Asbestos Inspection (SEI)

Safety & Environmental Investigations, Inc. (“SEI”) performed an Asbestos Inspection at the property as part of the 2013 Arkansas Brownfield Program process. The report, dated January 2014, identified the following asbestos concerns at the property:

- Category II Non-Friable:
 - Gray plaster walls (hallways) all throughout the property
 - 20,305 square feet of floor tiles and associated mastic
 - 13,200 square feet of roofing material, east/southeast portion
 - 7,200 square feet of roofing material, western portion
 - 1,514 square feet + 320 linear feet of insulation
- Regulated Asbestos Containing Materials (RACM):
 - 230 pipe joints/elbows and associated mastic
 - 12 fire doors

3. 2023 Phase I Environmental Site Assessment (FTN)

FTN performed another Phase I ESA at the property as part of the 2023 Arkansas Brownfield Program process. The report dated, June 7, 2023, identified the same two RECs as the 2013 Phase I ESA. FTN reiterated that releases from the operation of the UST systems may have impacted the property.

4. 2023 Asbestos Inspection Update (Ensafe)

Ensafe, Inc. (contractor), through SEI (subcontractor), performed an Asbestos Inspection Update as part of the 2023 Arkansas Brownfield Program process. The report, dated December 13, 2023, identified the following asbestos concerns at the property:

- Category I Non-Friable:
 - o 2,220 square feet of linoleum
- Category I/II Non-Friable:
 - o 16,719 square feet of flooring (tiles/linoleum) and associated mastic
- Category II Non-Friable:
 - o Gray plaster walls (hallways) all throughout the property
 - o 20,400 square feet of roofing material
 - o 1,366 square feet of flooring and associated mastic
 - o 72 windows and associated caulking
 - o 3 sinks and associated undercoat
- Regulated Asbestos Containing Materials (RACM):
 - o 1,200 square feet of pipe insulation
 - o 320 linear feet of pipe insulation
 - o 230 pipe joints/elbows
 - o 160 square feet of duct insulation
 - o 150 square feet of tank insulation
 - o 12 fire doors
 - o 4 square feet of boiler door insulation

5. 2023 Additional Assessments

After the 2023 Phase I ESA and Asbestos Survey Update, FTN, recently purchased by Olsson, Inc. (“Olsson”), performed a ground penetrating radar (GPR) survey and performed a sampling event of the wastes identified in the Phase I ESAs (x-ray wastes). The GPR Survey indicated that no storage tanks were buried at the property. Wastes inside the building were sampled and analyzed using the Toxicity Characteristic Leaching Procedure (TCLP). Based on the sample results, the wastes

inside the building were confirmed to be hazardous and it was determined that special disposal would be required.

d. Project Goal

The immediate goal of this project is to dispose of the hazardous wastes present at the site. The building is easily accessible to trespassers and the surrounding area is largely residential. In addition, an elementary school is one of the bordering properties. There is a high risk of trespassers being exposed to contamination and further vandalism of the building, which would exasperate the asbestos concerns.

The long-term goal of this project is to demolish the building to redevelop the site. However, the Arkansas Brownfield Program is unable to fund the required pre-demolition asbestos abatement or the demolition activities at this time. The City of Dumas, Desha County, and the Southeast Arkansas Economic Development District (SAEDD) are exploring other grant funding opportunities, which will require the building be “cleanup ready” at the time of application. Therefore, the Arkansas Brownfield Program has committed to funding waste disposal activities to achieve the immediate goal of this project and to assist in obtaining additional cleanup funding.

II. Applicable Regulations and Cleanup Standards

a. Cleanup Oversight and Responsibility

Olsson will oversee the performance of this work with the Arkansas Department of Energy and Environment Division of Environmental Quality (DEQ) Brownfield Program staff providing the funding, assistance, and oversight. Haz Mat Services, Olsson’s subcontractor, will provide profiling, manifest preparation, transportation and disposal coordination. Additionally, Haz Mat Services will assist with obtaining an EPA Identification Number for the facility for waste disposal purposes.

b. Cleanup Standards for Major Contaminants

There are no applicable cleanup standards for this waste disposal event. All wastes will be removed from the Site and disposed of in accordance with applicable laws and regulations.

c. Laws and Regulations Applicable to the Cleanup

Laws and regulations that are applicable to this cleanup include:

- Resource Conservation and Recovery Act (RCRA) 40 CFR 261, Subpart C – Describes hazardous waste handling and disposal requirements for wastes deemed hazardous due to toxicity characteristics.
- APC&EC Rule 23, Hazardous Waste Management – Describes disposal requirements for wastes deemed hazardous due to toxicity characteristics.

- Occupational Safety and Health Administration 29 CFR 1910.120, Hazardous Waste Operations and Emergency Response – Covers requirements for employees engaged in hazardous waste operations, including training requirements.

In addition, all appropriate permits (e.g. notify before you dig, transport/disposal manifests, Notice of Intent) will be obtained prior to the work commencing.

III. Evaluation of Cleanup Alternatives

a. Cleanup Alternatives Considered

To address contamination at the Site, three different alternatives were considered, including: Alternative #1: No Action, Alternative #2: Security & Monitoring, and Alternative #3: Waste Disposal.

b. Cost Estimate of Cleanup Alternatives

Alternative #1 – No Action

Effectiveness

Alternative #1 is not effective in controlling or preventing the exposure of receptors to contamination at the site. Additionally, it is not effective in meeting the long-term project goal, which is to demolish the building and reuse the site, because the hazardous wastes will need to be removed prior to demolition.

Implementation

Alternative #1 requires no action for implementation.

Cost

There is no cost for Alternative #1.

Alternative #2 – Security & Monitoring

Effectiveness

Alternative #2 is effective in controlling or preventing the exposure of receptors to contamination at the site. However, it is not effective in meeting the long-term project goal, which is to demolish the building and reuse the site, because the hazardous wastes will need to be removed prior to demolition.

Implementation

Alternative #2 could be implemented by leaving the waste in place and maintaining on-site security 24 hours per day, every day, in perpetuity. Or,

#2 could be implemented through the installation of perimeter security fencing and/or sealing the building to prevent trespassing.

Cost

Alternative #2 will require the cost of providing on-site security 24 hours per day, every day, in perpetuity. Or, #2 will require the cost of installing perimeter security fencing and/or replacement doors and windows for the building. Costs were not obtained for this alternative because it is not an effective option for the long-term project goal.

Alternative #3 – Waste Disposal

Effectiveness

Alternative #3 is effective in preventing the exposure of receptors to contamination at the site because the hazardous waste would be removed from the building. This alternative is also effective for reaching the long-term project goal of demolition and reuse of the property.

Implementation

Alternative #3 could be implemented through disposal. Olsson (contractor), acting as an Agent on behalf of Desha County, would assist in profiling and coordinating disposal of the hazardous wastes.

Cost

The cost of Alternative #3 will cost an estimated \$8,450.00

c. Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #3: Waste Disposal, as it is the most effective at achieving the short- and long-term goals of this project. Alternative #3 will remove the potential for exposure to the hazardous wastes at the site while allowing for future building demolition and site reuse. Alternatives #1 and #2 cannot be recommended since they do not address all the project goals.