Analysis of Brownfield Cleanup Alternatives

Altheimer Community Emergency Building (Former Altheimer Vo-Tech School)

302 South Edline Street, Altheimer, Arkansas

AFIN: 35-01570

I. Introduction & Background

a. Site Location: This site is located at 302 South Edline Street, Altheimer, Arkansas (herein referred to as "the Site").

b. Previous Site Use(s) and any previous cleanup/remediation: The building was utilized as a vocational-technical school for many years but is currently vacant. The Site consists of a single-story building, approximately 8,500 square feet (SF) total.

The main challenge this brownfield site faces is the presence of asbestos-containing materials (ACM).

c. Site Assessment Findings: Snyder Environmental conducted an Asbestos Inspection on behalf of the City of Altheimer in September of 2024. The Snyder Environmental Inspection Report identified asbestos in concentrations greater than 1% in tan 12x12 floor tile with black mastic adhesive (2,175 SF) and in transite panels (160 SF).

d. Project Goal: The planned development will create a multi-purpose community center for the City of Altheimer. Renovations cannot take place until ACM is removed.

Cleanup goals for the project include:

- Protection of human health and the environment;
- Compliance with applicable and appropriate regulatory requirements; and
- Short- and long-term hazard reduction.

II. Regulatory Considerations

a. Cleanup Oversight Responsibility: The Arkansas Department of Energy and Environment Division of Environmental Quality (DEQ) will oversee the Site cleanup. Snyder Environmental, subcontractor to AECOM, will conduct and manage this work with AECOM providing accountability, contractors, and oversight. Snyder Environmental is an Arkansas-licensed asbestos abatement contractor and all workers will be trained and individually licensed. Snyder Environmental will file the required 10-Day Notice of Intent (NOI) with the DEQ Asbestos Section prior to site activities.

b. Cleanup Standards: Final air clearance testing will be performed following removal of asbestos and cleaning of the containment area. A fiber count of 0.21 fibers per cubic centimeter (cc) will be required to pass final air clearance. If fiber counts exceed this

threshold, the containment area will be cleaned again and the air clearance process will continue until passing levels are achieved.

c. Laws & Regulations Applicable to the Cleanup: The following laws and regulations apply to the asbestos cleanup alternatives for the Site:

- Asbestos Hazard Emergency Response Act (AHERA) – AHERA regulations apply to abatements in public schools; however, the same standards are generally used for all abatements.
- Toxic Substances Control Act (TSCA) – TSCA regulates certain hazardous chemical substances, including asbestos, and authorizes EPA to take regulatory action to protect against unacceptable risk of injury to human health or the environment.
- National Emissions Standard for Hazardous Air Pollutants (NESHAP) Regulation 40 CFR Part 61, Subpart M – Specifies work practices for asbestos during demolitions and renovations of buildings. The regulations require the owner or the operator of the building to notify the appropriate state agency before any demolition, or before any renovations of buildings that could contain a certain threshold amount of asbestos or asbestos-containing material.
- Clean Air Act (CAA) (24 U.S. Code § 7401 et seq.) – Includes provisions for the EPA to set national emission standards for hazardous air pollutants, including asbestos.
- Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1001, Asbestos General Standard – Specifies permissible exposure limits, limits, engineering controls, worker training, labeling, respiratory protection, and disposal of asbestos waste.
- OSHA 29 CFR 1926.1101, Asbestos Construction Standard – Covers construction work involving asbestos, including work practice during demolition and renovation, worker training, disposal of asbestos waste, and specification of exposure limits.
- 20 CAR § 860-101 et seq., Arkansas Asbestos Abatement Rule (formerly Arkansas Pollution Control & Ecology Commission [APC&EC] Rule 21) – Specifies work practices for asbestos during demolitions and renovations of commercial buildings, including licensing and certification, inspections, notifications, and disposal requirements.
- 8 CAR § 60-101, Solid Waste Management Rules (formerly APC&EC Rule 22) – Describes disposal requirements for asbestos containing materials.

Under Federal and State laws and regulations, before any renovation or demolition activities can commence in commercial properties, it is mandatory to determine the presence of ACM, including all Category I and Category II non-friable materials.

Regulated ACM (RACM) includes any ACM that is friable; any Category I and II ACM that is in poor condition; and any Category I or II ACM that becomes friable during renovation or demolition activities and is present in quantities greater than 160 square feet, 260 linear feet, or 35 cubic feet.

Any ACM that will be rendered friable during renovation or demolition activities due to sawing, sanding, drilling or abrading, regardless of the quantity of the material, are also considered to be regulated. DEQ and AHERA require these materials to be removed prior to any such renovation or demolition.

Removal of RACM from any public school, public building, or commercial building is regulated by EPA, DEQ, and OSHA. These materials must be removed by an asbestos abatement contractor licensed by DEQ who employs AHERA-trained and certified workers that are individually licensed by DEQ.

An asbestos abatement design must be submitted to the DEQ Asbestos Section prior to a renovation, demolition, or response action, other than a small-scale short-duration (SSSD) activity or minor release episode that involves RACM. The project design must be a site-specific written document and a copy must be maintained at the job site and be made available to DEQ employees upon request. An NOI must also be submitted to the DEQ Asbestos Section at least 10 working days prior to commencement of abatement activities.

Final clearance air sampling is required by DEQ for all contained work areas when regulated materials are removed. Final clearance air monitoring is to be performed by an Arkansas-licensed Air Monitor.

The disposal of RACM is regulated by the DEQ Solid Waste Division. Removed materials must be transported and disposed of as an asbestos-containing waste at a Class I licensed and permitted landfill. Disposal of Category I and II non-friable asbestos-containing materials in good condition can be disposed of at either a Class I or Class III licensed and permitted landfill.

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: Asbestos Encapsulation, and Alternative #3: Asbestos Abatement.

b. Cost Estimate of Cleanup Alternatives:

Alternative #1 – No Action

Effectiveness

The No Action alternative would not be effective in preventing short- or long-term exposure to ~~asbestos, and~~asbestos and therefore would not be protective of human health. This option would not meet the regulatory requirement to remove RACM prior to renovations, so it would not allow the planned renovations to proceed.

Implementation

The No Action alternative would be implemented by leaving the Site in its current state.

Cost

The No Action alternative would require no cost.

Alternative #2 – Asbestos Encapsulation

Effectiveness

Asbestos Encapsulation would reduce the short-term hazard associated with asbestos, but the remaining asbestos would eventually need to be removed as it would continue to deteriorate. This option would not meet regulatory requirements to remove RACM prior to renovations, so it would not allow the planned renovations to proceed.

Implementation

Asbestos Encapsulation would be a quick task but would not remove the RACM from the building, preventing the planned renovations.

Cost

Asbestos Encapsulation would cost $5,000 - $8,000.

Alternative #3 – Asbestos Abatement

Effectiveness

Asbestos Abatement would eliminate the short- and long-term asbestos hazards and would meet the regulatory requirement to remove RACM prior to renovations.

Implementation

Asbestos Abatement would take a week and would result in the safe removal of RACM from the building.

Cost

Asbestos Abatement will cost $15,193.00.

c. Recommended Cleanup Alternative

The recommended cleanup alternative is Alternative #3: Asbestos Abatement.

Alternative #1: No Action cannot be recommended since it does not address project goals or Site risks.

Alternative #2: Asbestos Encapsulation is estimated to cost less than abatement but fails to address project goals, as the City would still be unable to renovate the building due to the remaining asbestos containing materials.

Alternative #3: Asbestos Abatement is the most expensive but will take only one week to complete and will allow for the renovation of the building in the future. As Alternative #3 is the only option to address the project goal, Alternative #3: Asbestos Abatement is the recommended alternative.