

Analysis of Brownfields Cleanup Alternatives – Preliminary Evaluation

Old Talihina Indian Hospital, Building 201 Brownfield Site, SE 202nd Road, Talihina
Oklahoma 74571

Latimer County

Tribal Tracking Number/ Brownfield ID: LATTT0050

Prepared by: Choctaw Nation Tribal Response Program

*Please note that the draft Analysis of Brownfields Cleanup Alternatives (ABCA) submitted as part of the proposal is intended as a brief preliminary document. The format of this document may not meet state requirements for the evaluation of cleanup alternatives.**



1.0 INTRODUCTION AND BACKGROUND

The current property owner is Choctaw Nation of Oklahoma. The subject property contains building 201 and was constructed in 1937. Building 201 operated as a U.S. Government Hospital and Indian Health Services Hospital until a new CNO hospital was built, in Talihina, Oklahoma, in 1999. The building is eligible to be listed on the National Register of Historic Places.

Due to the age of the build, positive identification of asbestos containing materials and lead-based paint, state of the building and contaminants identified, abatement will be expedited. This abbreviated analysis of brownfield cleanup alternatives will serve to inform the public of and justify the abatement project. The intent of this project is the complete abatement and removal of (1) all confirmed asbestos containing materials (ACM) and associated debris, and (2) all confirmed lead-based paint (LBP) within Building 201.

1.1 SITE LOCATION

Site Location: SE 202nd Road, Building #201 Talihina, Oklahoma 74571

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1.2 PREVIOUS SITE USES AND ANY PREVIOUS CLEANUP/REMEDATION

The subject property contains building 201 and was constructed in 1937. Building 201 operated as a U.S. Government Hospital and Indian Health Services Hospital until a new CNO hospital was built, in Talihina, Oklahoma, in 1999. The building is eligible to be listed on the National Register of Historic Places. The buildings from the original 57-acre hospital campus were first constructed in 1917, and some of these structures still exist onsite. The second round of construction at the property, including building 201, was constructed in 1937. Construction was completed by the Public Works Authority, and the hospital was operated by the Department of Interior, Public Health Authority, and later Indian Health Services. Previous known uses include Tuberculosis and General Hospital uses.

Project summary documents from the Indian Health Service, dated 2000 and 2001 summarize

Project Summary Document, October 2000 - Abatement of Polychlorinated Biphenyls (PCB), Asbestos-Containing Building Materials (ABCM) and Lead Base Paint (LBP) Hazards and Demolition of Selected Structures

Project Summary Document, December 3, 2001 - Abatement of LBP Hazards and Demolition of Selected Structures

-Rooms numbers 24, 28, and 29 - pre-cleaned, prepped, scraped linoleum, encapsulated and tore down containment.



- Dental Office (Ground Floor Ambulatory Wing) - glove-bagged vertical steam pipes behind false wall.
- 1st Floor Infirmary (hallway to lab), 2nd Floor Hallway, and Cafeteria - removed ductwork and drop ceilings
- Ground Floor Infirmary Crawlpace - asbestos debris removal, bagged and removed.
- Room 14 - linoleum scraped
- Recovery Center, Unit No. 18 - ceiling scrape and linoleum abated, also "Unknown Crawlpace" abated (discovered after carpet removal for linoleum scrape).
- LBP Abatement of Windows - no specification which windows or how many were abated.

1.3 SITE ASSESSMENT FINDINGS

What did you find with the Phase 1? What did you find with any site sampling? Also include any additional sampling, site reuse assessments, and/or risk assessment findings.

A Phase I Environmental Site Assessment (ESA) was completed in May of 2020 by Enercon Services. Recognized Environmental Conditions (RECs) noted in the Phase I ESA report include staining on concrete, staining on an above ground storage tank (AST), approximately 14 drums were observed on the subject property, and accurate locations of underground storage tanks (UST) listed in the Oklahoma Corporation Commission database is not known. Enercon's Phase I ESA report recommended a Phase II ESA for the subject property.

In December of 2024 a structural engineering assessment was completed by Engineering inc. The roof contains areas of deterioration causing water intrusion into the building. The building's doors and windows are found in varying condition also leading to water intrusion in the building.

A Phase II ESA was completed in September of 2025 by Stronghold Environmental. The Phase II ESA determined building 201 contains deteriorated lead-based paint (LBP). The Phase II sampling had a total of 530 positive readings throughout the building. The Phase II ESA recommends inaccessible areas be treated as presumed LBP and any activities which disturbs painted/coated surfaces follow EPA Renovation, Repair and Painting (RRP) guidance. The Phase II ESA determined building 201 contains deteriorated asbestos. Asbestos was found in the exterior window caulking, pipe runs throughout the building, and hard packs throughout the building. According to the Phase II ESA thermal system insulation (TSI) containing asbestos was observed through limited openings of plaster walls and plaster/lath ceilings and appeared severely damaged. "Due to plaster walls and plaster/lath ceilings, interstitial spaces could not be fully observed. TSI pipe insulation is believed to be present in greater quantities than could be visually confirmed or quantified during a non-destructive inspection." The Phase II ESA report recommends additional intrusive characterization of asbestos containing TSI and/or abatement of asbestos containing material (ACM) or abatement of all existing ACM in the interior.



1.4 PROJECT GOALS

The project goals for this site are to fully abate the friable asbestos and lead-based paint located in the building which is in an advanced deteriorated condition and to create a plan for reuse based on community input, leadership guidance, and an overall site reuse assessment and redevelopment plan.

Community interests for reuse are to continue the history of CNO healthcare in this facility since CNHSA (Choctaw Nation Health Systems Authority) is always in need of additional space for programs.



2.0 APPLICABLE REGULATIONS AND CLEANUP STANDARDS

Tribal Asbestos Policies:

- TW EPS Asbestos Policy

Tribal Lead-based paint Policies:

- TW EPS Lead-Based Paint Policy

Tribal Safety Policies:

- TW CNOSH Respirator Protection Policy and other associated policies

Federal Asbestos Regulations: Applicable regulations will be CAA, NESHAP, RCRA, TSCA:

- CAA: This regulation classifies asbestos as a hazardous material. May require state air permits for demolitions.
- NESHAP- 40 CFR Part 61, Subpart M: This regulation requires notification to the EPA/State Agency (with federal delegation of oversight-ODEQ) up to or greater than 10 days before the abatement or demolition begins. It applies to Thermal System Insulation (TSI) and surfacing materials. NESHAP also requires that a previously completed asbestos survey was conducted prior to abatement activities.
- RCRA-(40 CFR Parts 260-279) This regulation requires that Asbestos be disposed of in approved landfills approved to accept asbestos-containing materials.

Federal LBP Regulations: CERCLA, RCRA, TSCA:

- CERCLA: Under CERCLA, we use the Adult Lead Model (ALM) and our risk-based decision-making documentation and risk assessments to establish site-specific cleanup goals if residential standards are not used.
- RCRA: Any lead waste generated from any abatement or soil removal activities must undergo hazardous waste determination or TCLP testing to characterize the waste and determine proper disposal.
- TSCA Title IV (40 CFR Part 745): This regulation requires the use of EPA-certified abatement contractors, supervisors, and workers for lead remediation and abatement. It also regulates proper work practice standards for containment, dust control, and clearance testing and proper waste handling.
 - Any lead-based paint remaining at the site would result in a requirement of EPA RRP (renovation, repair and painting) requirements for maintenance staff.
 - If, the project is a full abatement project, TSCA Abatement Rule (Subpart L) governs.

Federal Worker Safety Regulations:

- OSHA 29 CFR 1926.1101: This is the construction asbestos standard which sets exposure limits, classifies different asbestos abatement work, sets requirements for PPE, sets training requirements, and air monitoring for all abatement work in renovations or demolitions.



- OSHA 29 CFR 1926.62: Regulates lead in construction and governs worker exposure limits, worker protection requirements, initial exposure assessments, medical surveillance and blood lead monitoring.
- OSHA 29 CFR 1910.1200, 1926.59, 1910.134: Regulates safety data sheets, employee training, respirator used during asbestos/lead work.

2.1 CLEANUP OVERSIGHT RESPONSIBILITY

The subject site, Building 201, known as the Old Talihiina Indian Hospital land is held in restricted trust for the beneficial use of Choctaw and Chickasaw Nation. The buildings themselves are owned by Choctaw Nation and in the past, the Public Health Association. No state regulations other than NESHAP will be applicable. Federal and Tribal Authorities will have authority over the cleanup at this site.

The US Environmental Protection Agency and Choctaw Nation Environmental Protection Service will oversee the cleanup at the site under the EPA Cooperative Agreement BF-02F40401. Choctaw nation will have separate contractors who complete the abatements and clearance/oversight at the site. The site is tracked under the Tribal Brownfields number LATT0050 and ACRES ID number 262236.

2.2 CLEANUP STANDARDS FOR MAJOR CONTAMINANTS

Federal and Tribal Asbestos and Lead-Based Paint Abatement regulations, policies, and best practices will be use at the site.

Due to the deteriorated state of the TSI and surfacing materials in the OTIH, CNO Brownfields Program will abate all ACM within the OTIH. Due to the deteriorated state of the LBP and underlying components which tested positive for LBP, CNO Brownfields will strive to abate all lead-based paint within Building 201. CNO currently anticipates that federal standards for commercial properties will be used as cleanup standards. However, it is possible that risk-based cleanup standards will be generated for compounds of concern, in accordance with tribal and federal regulations.

2.3 LAWS & REGULATIONS APPLICABLE TO THE CLEANUP

See all 2.0 for all Federal regulation requirements for ACM and LBP abatement. There are also other regulatory requirements which may be required.

Project Managment:

- CERCLA 104(k): Regulates any hazardous substance is released or there is a substantial threat of such a release into the environment, or there is a release or substantial threat of release into the environment of any pollutant or contaminant which may present an imminent and substantial danger to the public health or welfare. The authority for these cleanup actions operates under this authority.



- Davis Bacon and Related Acts: Asbestos and lead-based paint abatement completed under CERCLA 104(k) grants are required to complete all federal Davis-Bacon compliance related activities. This includes filling out the Davis-Bacon and Related Acts Weekly Certified Payroll Form and SF-1445 Labor Standards Interview forms as work is being completed at the site.
- DOT (Transportation of Waste): 49 CFR Parts 171-180: This regulation applies when transporting asbestos-containing waste and hazardous lead waste.



3.0 EVALUATION OF CLEANUP ALTERNATIVES

This section will be used to evaluate all cleanup alternatives discussed below.

3.1 CLEANUP ALTERNATIVES CONSIDERED

Alternative #1: No Action

Alternative #2: A mix of abatement and encapsulation of degraded ACM TSI and Surfacing Material with remediation of lead-based paint

Alternative #3: Full abatement of all ACM and LBP. Little to no contaminants left at the site.

- **All TSI RACM:** Full abatement w/ project design
- Based on Phase A findings, perform licensed asbestos abatement of confirmed ACM (and any additional ACM identified) and include cleanup of debris and impacted surfaces within affected cavities/spaces, particularly interstitial ceiling areas where damaged TSI and debris migration were observed. Abatement and associated cleanup activities should be implemented using the most stringent applicable requirements where standards differ and should be conducted under a CIH-developed compliance program (Project Design and abatement QAPP/air program).
- State of Areas: In areas where overhead TSI was visible, the material appeared severely damaged, and insulation debris was observed on the topside of ceiling assemblies, indicating potential migration within ceiling cavities and the need to incorporate asbestos controls and debris management into any intrusive work.



The following homogenous areas tested positive for asbestos:

HA #	Location	Sample Descriptions	Asbestos Type (%)	Friable / Nonfriable	Approximate Measurements
39	Exterior Windows	Window Caulk	Chrysotile 4%	Nonfriable	Not Measurable
41	Throughout	3" Pipe Runs	Chrysotile 15%	Friable	Not Unquantifiable
42	Throughout	3" Hard Packs	Chrysotile 60%	Friable	Not Unquantifiable
43	Throughout	4" Pipe Runs	Chrysotile 10%	Friable	Not Unquantifiable
44	Throughout	4" Hard Packs	Chrysotile 60%	Friable	Not Unquantifiable
45	In H-13 & extending into the upper Boiler Room	6" Pipe Runs	Chrysotile 50%	Friable	~25 linear feet
46	In H-13 & extending into the upper Boiler Room	6" Hard Packs	Chrysotile 50%	Friable	~2 hard packs
47	In H-13 & extending into the upper Boiler Room	8" Pipe Runs	Chrysotile 10%	Friable	~20 linear feet

- All window caulking in interfaces/penetrations reported at 4% chrysotile, exterior, shall be removed.
- 3" pipe runs- Destructive demolition and RACM abatement of all horizontal pipe runs in the interstitial spaces and vertical runs in the ceiling pass throughs between floors.
- This includes the 3" hard pack found throughout the hospital.
- 4" pipe runs- Destructive demolition and RACM abatement of all 4" horizontal pipe runs in the interstitial spaces and vertical runs in the ceiling pass throughs between floors.
- This includes the 4" hard pack found throughout the hospital.
- 6" pipe runs- Destructive demolition and RACM abatement of all 6" pipe runs found in the H-25a closet hatch and the H-13 area extending into the upper Boiler Room (H-19).
- This includes the 6" hard pack found in the H-13 area extending into the upper Boiler Room (H-19).
- 8" pipe runs- Destructive demolition and RACM abatement of all 8" pipe runs found in the H-25a closet hatch and the H-13 area extending into the upper Boiler Room (H-19).



- In areas which are opened to complete the asbestos abatement, if non-homogeneous suspected ACM is encountered, contractors will be required to sample the suspected ACM prior to abatement of that same material. However, if contractors are confident that the new material is RACM by referencing the Asbestos Inspection from 2025.
- **Lead-Based Paint on non-Friction areas, in poor condition: Full abatement**
- For work planning, if a coating group is confirmed LBP-positive anywhere in the dataset (≥ 1.0 mg/cm²), visually matching coatings on the same component/substrate should be treated as presumed LBP positive unless additional XRF testing demonstrates otherwise.
- Any untested or inaccessible painted/coated surfaces should be presumed LBP unless further evaluated.
- Cabinets: Remove all positive cabinets (51.6%)
- Stairs: Wet-scrape and remove, paint w/ elastomeric paint. (44%)
- Walls: Demolish, remove unless it is a load-barring wall (22.7%)
- Pipes: Remove 4 pipes that tested positive
- Ceilings: Remove (8.1% of ceilings tested positive)
- Radiators: Remove 4 which tested positive.
- **Lead-Based Paint in high-friction areas, etc.: Full abatement (Windows /Doors)**
- Remove all positive windows, window assemblies, and door assembly. Replace in-kind.
- Windows assemblies (85.9%)
- Doors and door assemblies (25.3%)
- However, any architectural components which can be saved should be wet-scraped and left in place, if possible.

3.2 COMPARATIVE ANALYSIS OF CLEANUP ALTERNATIVES

All alternatives are compared using the following criteria.

3.2.1 IMPLEMENTABILITY

Alternative #1: Implementability for this alternative would be easy as no action is required.



Alternative #2: Implementability for this alternative would be moderate to high as it would include encapsulation of damaged friable material and may not be feasible given the state of the deteriorated material.

Alternative #3: Implementability for this alternative would be moderate to high-moderate given it would involve removal of all damaged material.

3.2.2 COMPLIANCE

Alternative #1: Would not be compliant with tribal or federal regulations for the site in it's current condition.

Alternative #2: Would not be compliant with tribal or federal regulations for the site in it's current condition.

Alternative #3: Alternative 3 consists of removing and disposing of ACM according to all federal, applicable state, and tribal regulations. Any lead in substrate material left after abatement will be encapsulated or removed and replaced in-kind.

3.2.3 EFFECTIVENESS

Alternative #1: No action will not reduce the potential for exposure of human health and the environment to COCs or provide a reduction in the toxicity, mobility, or volume of contaminants as site conditions will deteriorate continually with time. The overall risk from COCs to potential receptors would not decrease in the short or long-term futures.

Alternative #2: This alternative may reduce the potential for exposure of human health and the environment to COCs but is unreliable given it would NOT achieve the cleanup goals set for the site in the long-term nor does it achieve an use outcome for the property.

Alternative #3: This alternative will be effective in the short and long-term due to the removal of all COCs. There will be no risk to human health or the environment remaining at the site. This alternative is the only one that is the safest to workers and eliminates the chance of asbestos and LBP potential exposure.

3.2.4 COST

Alternative #1: \$0

Alternative #2: This alternative would be similar in cost to Alternative #3 but would not meet federal requirements for removal of ACM, therefore would be subject to additional fines and fees.

Alternative #3: This will be the most expensive alternative since it will be the most-time labor intensive but it is the only alternative which would ensure all compliance is met with federal and tribal regulations.



3.3 RECOMMENDED CLEANUP ALTERNATIVE

The recommended cleanup alternative is Alternative #3.

- **All TSI RACM:** Full abatement w/ project design
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