Analysis of Brownfields Cleanup Alternatives

Former Lodge Pole Elementary School
275 Hoka Hey Loop
Hays, MT 59527

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1.0 INTRODUCTION AND SITE BACKGROUND

This document is an Analysis of Brownfields Cleanup Alternatives (ABCA) for the Former Lodge Pole Elementary School (The School), Residence, Shop, and Maintenance Garage (Garage) in Hays, Montana. Asbestos-containing building materials (ACBM), lead-based paint (LBP) and universal wastes are present in the on-site buildings (Weston, 2020). This ABCA is required as a condition of cleanup using U.S. Environmental Protection Agency (EPA) funds. This document has been prepared using Fort Belknap Community Economic Development Corporation (FBDEC) Brownfields Assessment Grant Funds awarded by the EPA.

1.1 Site Location and Description and Previous Uses

The target property is located at 275 Hoka Hey Loop in Hays, Montana. The school was built in 1957 and closed in 2004. According to Weston (2020), the facility has been used as a storage site for the school district since it closed. Other buildings on the property include a previous residence, a garage, and a shop. All three buildings are currently used as storage.

1.2 Contamination Summary

As described in the Phase II Environmental Site Assessment (ESA) report and in **Table 1**, Weston (2020) identified 14 ACBM. Such building materials contain greater than 1% asbestos by weight).

Table 1. Former Lodge Pole Elementary School - Asbestos Results

Material Description	Location	Qty	Regulatory Category
Caulking	Old Section	320 lf	Category I
Ceiling Plaster	Old Section	90 sf	Category II
Fire Door	Old Section	1	Category I
VFT & Mastic	Old Section	5,365 sf	Category I
Mudded Fittings	Old Section	5	RACM
Wall Texture	Old Section	500 sf	Category II
Plaster	Old Section	--	OSHA
Ceiling Tiles	New Section	6600 sf	RACM
Fire Door	New Section	1	Category I
VFT & Mastic	New Section	4700 sf	Category I
Transite Panel	Shop	300 sf	Category II
VFT & Mastic	Residence	700 sf	Category I
Drywall Joint Compound	Residence	320 lf	RACM
Window Glazing	Residence	450 lf	Category II
Drywall Compound	Residence	600 sf	RACM

Description of Regulatory Categories:

1. Category I = Non-friable ACBM consisting of packing, gaskets, resilient floor covering, and asphalt roofing products.
2. Category II = Non-friable ACBM, excluding Category I materials, such as cement asbestos board (CAB), window putty.
3. RACM = Regulated Asbestos-Containing Material including: Friable ACBM; Category I material that has become friable; Category I material subject to sanding, grinding, cutting, or abrading; or Category II material that has a high probability of becoming friable; lf = linear feet; sf = square feet.

In addition to the ACBMs identified, plaster was also found to contain asbestos in the school. A composite sample of the plaster was collected and found to contain less than one percent (<1%) asbestos. While the removal of the plaster does not require a permit, OSHA regulates this material and requires oversight by

40-hour OSHA-trained personnel. The landfill also requires the material to be disposed of as an asbestos waste and the landfill must be notified of the composite result prior to disposal.

Lead-based paint was confirmed on the interior and exterior of the buildings. **Table 2** identifies the lead-based paint identified during the inspection of the onsite buildings.

Table 2. Lead-Based Paint Detected at The School, Residence, and Shop

Sample Number	Location	Room	Component	Substrate	Color	Lead (mg/cm^3)
27	Lodge Pole School - Shop (LPE - S)	Room A	Window Frame	Wood	Gray	5
28	LPE - S	Room A	Window Frame	Wood	Gray	5
29	LPE - S	Room A	Window Sill	Wood	Gray	3.88
30	LPE - S	Room A	Window Sash	Wood	Gray	5
31	LPE - S	Room A	Door	Wood	Gray	5
32	LPE - S	Room A	Door Frame	Wood	Gray	5
34	LPE - S	Exterior	Door	Wood	Lt. Blue	5
35	LPE - S	Exterior	Wall	Wood	Lt. Blue	1.36
36	LPE - S	Exterior	Wall	Wood	Lt. Blue	4.58
37	LPE - S	Exterior	Wall	Wood	Lt. Blue	5
38	LPE - S	Exterior	Window Frame	Wood	Lt. Blue	5
39	LPE - S	Exterior	Window Sill	Wood	Lt. Blue	5
41	LPE - S	Exterior	Door Frame	Wood	Lt. Blue	5
42	LPE - S	Exterior	Built-In	Wood	Lt. Blue	5
55	Lodge Pole School - Residence (LPE - R)	Room C	Door	Wood	Pink	5
58	LPE - R	Room C	Window Frame	Wood	Pink	1.74
59	LPE - R	Room C	Window Frame	Wood	Pink	4.27
60	LPE - R	Room C	Window Sash	Wood	Pink	5
72	LPE - R	Exterior	Wall	Wood	Lt. Blue	5
74	LPE - R	Exterior	Wall	Wood	Lt. Blue	4.33
75	LPE - R	Exterior	Wall	Wood	Lt. Blue	3.08
76	LPE - R	Exterior	Wall	Wood	Lt. Blue	5
77	LPE - R	Exterior	Window Sill	Wood	Lt. Blue	5

Sample Number	Location	Room	Component	Substrate	Color	Lead (mg/cm^3)
78	LPE - R	Exterior	Window Frame	Wood	Lt. Blue	3
79	LPE - R	Exterior	Window Frame	Wood	Lt. Blue	3.9
82	LPE - R	Exterior	Trim	Wood	Lt. Blue	2.7
96	Lodge Pole School - Old (LPE - O)	Room I	Window Frame	Wood	Orange	1.22
98	LPE - O	Room I	Window Frame	Wood	Orange	1.38
99	LPE - O	Room I	Window Frame	Wood	Orange	1.53
100	LPE - O	Room I	Window Frame	Wood	Orange	1.05
111	LPE - O	Room J	Window Frame	Wood	Orange	1.36
113	LPE - O	Room J	Window Frame	Wood	Orange	1.12
114	LPE - O	Room J	Window Frame	Wood	Orange	1.27
115	LPE - O	Room J	Window Frame	Wood	Orange	1.52
117	LPE - O	Room J	Window Frame	Wood	Orange	1.62
118	LPE - O	Room J	Window Frame	Wood	Orange	1.91
123	LPE - O	Room A	Window Frame	Wood	Orange	1.27

Lead was also detected in soils around the shop and residence buildings. The lead concentration exceeded both the DEQ residential direct contact risk-based screening level (RBSL) of 200 mg/kg and the leaching to groundwater RBSL of 140 mg/kg (DEQ 2021), as shown in **Table 3**.

Table 3. Lead in Soil Analysis Results

Soil Sample ID	Location	Lead Results (mg/kg)
LPE-SO01-0002	Shop	13,700
LPE-SO02-0002	Residence	29,200

Other wastes associated with the school include:

- ***PCBs***: Light fixtures and unlabeled ballasts are present in multiple rooms throughout the school.
- ***Mercury***: Weston (2020) observed two mercury-containing thermostats One is in a classroom, the other is on the stage in the old section of the school.
- ***Mold***: mold growth was present in the old section of the school according to the Weston report.
- ***Pigeon guano***: In the old section of the school, pigeon guano was present in sparse amounts according to Weston's report.

1.3 Threats to Public Health and/or the Environment

When left intact and undisturbed, ACBM does not pose a significant health risk to people working or living in buildings or homes. However, if ACBM deteriorates or is disturbed by renovation or demolition activities, asbestos fibers may be released into the air and cause significant health concerns for building occupants by inhalation of asbestos fibers. Inhaled fibers can become entrapped in the lungs and cause diseases like asbestosis, lung cancer, and mesothelioma.

LBP and lead in soil is a concern as a source of exposure to lead through ingestion in dust or soil, and through inhalation of lead in dust. Lead in soil may pose a threat to the quality of underlying groundwater.

Exposure to bat or bird guano has been linked to the human diseases cryptococcosis and histoplasmosis. According to the CDC, bird roosts accumulating for three or more years should be suspected to contain fungus. Therefore, the guano at the school is considered a biological hazard and must be disposed of at a Class II landfill.

PCB-containing ballasts and mercury-containing thermostats become a concern if they are leaking and should be disposed of as hazardous waste when removed.

According to the EPA, exposure to mold can cause allergic reactions in individuals. Typical symptoms include sneezing, runny nose, eye irritation, and skin rash.

1.4 Project Goal

Fort Belknap Indian Community (FBIC) would like to renovate the school building for use as a youth center that would include a recreation center, college satellite office, daycare, preschool, and food program. The wastes described above will require abatement prior to building renovation.

2.0 CLEANUP REQUIREMENTS

2.1 Cleanup Objective

The objective of abatement/cleanup is to safely remove and properly dispose of the ACBMs, LBP, lead in soil, pigeon guano, mold, and PCBs associated with the buildings without unacceptable risk of exposure to abatement workers and the public.

2.2 Applicable Cleanup Standards

The cleanup of the buildings will comply with applicable federal laws. These include EPA guidance and regulations, OSHA regulations, and federal and state prevailing wage rates. Abatement of asbestos will be completed in accordance with the Environmental Protection Agency (EPA) Asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 Code of Federal Regulations (CFR) 61. Asbestos abatement oversight and final clearance air sampling services on this project will comply with EPA regulations for clearing asbestos abatement work areas. Consistent with EPA regulations, the cleanup standards for asbestos abatement on the project will be:

- 1% asbestos by weight and
- 0.01 fibers per cubic centimeter of air (<0.01 f/cc). Indoor air will need to be clean and cleared for occupancy. In accordance with applicable regulations, this is accomplished when five Phase Contrast Microscopy (PCM) air samples are collected, analyzed, and pass the asbestos final clearance criteria.

The cleanup level for LBP is:

- 1.0 mg/cm^3 via X-Ray Fluorescence (XRF) or a total lead analysis of 5.0 mg/kg. A paint containing a concentration above these limits must be abated via removal or encapsulated in accordance with the OSHA Lead Construction Standard 29 CFR 1926.62(EPA's Renovation, Repair and Painting (RRP) Rule). Paint with a concentration of less than these limits is still regulated by OSHA for the protection of workers.

The cleanup level for soil is provided by the EPA. The cleanup levels for lead in soil are:

- 696 mg/kg for commercial direct contact exposure;
- 200 mg/kg, for residential direct contact exposure and
- 140 mg/kg for the protection of groundwater.

Given the proposed use of the property as a youth center, the owner would like soils to be remediated to the Montana DEQ residential direct contact screening level of 200 mg/kg (DEQ 2021). The 140 mg/kg leaching-to-groundwater pathway screening level still applies. If confirmation samples collected after cleanup are below 200 mg/kg but above 140 mg/kg, the owner can complete leach testing and time of travel leach modeling to demonstrate the lead in the soil would not leach to groundwater.

Visible inspections will be used to determine whether the pigeon guano and mold have been abated. There is no established cleanup level for animal wastes and mold on building surfaces.

2.3 Enforcement Activities

No environmental enforcement activities have been initiated on the property, and the proposed abatement of hazardous building materials and cleanup of biological hazards is a voluntary action to support site reuses.

2.4 Need for Cleanup

2.4.1 Asbestos

If ACBM is not abated before the planned renovations, workers may inhale asbestos fibers and asbestos could be released into the building and inhaled by future occupants. Asbestos abatement to remove the ACBM can mitigate both this concern and the general threat to public health and/or the environment.

2.4.2 Lead-Based Paint

If the interior lead-based paint remains in its current state in any of the buildings, there is a potential for generation of lead-containing dust and inhalation or ingestion of lead by future occupants.

2.4.3 Lead in Soils

The lead detected in soils surrounding the shop and residence poses a risk of exposure through direct contact to lead in soil (dermal, inhalation, or ingestion) and/or via consumption of groundwater contaminated through leaching of the lead to the water table.

2.4.4 Animal Infestation

According to Weston (2020), sparse amounts of pigeon guano were observed in the old section of Lodge Pole Elementary.. Left unabated, the pigeon guano is a biological hazard. Removal of these wastes will eliminate the biological hazard.

2.4.5 Mold

Based on information provided in the Weston report, the extent of mold contamination could not be determined. Mold remains a contaminant of potential concern (COPC).

2.4.6 Universal Wastes

Exposures to PCBs can cause cancer. For this reason, the fluorescent light ballasts suspected to contain PCBs should be removed and properly disposed of to avoid exposure.

3.0 EVALUATION OF CLEANUP ALTERNATIVES

Through consultation with the landowner and EPA, NewFields identified five cleanup alternatives to address contamination at the former school and outbuildings. These alternatives are listed below and discussed in more detail in the following sections. Per EPA guidance, each are evaluated based on their comparative effectiveness as it relates to risk reduction, implementability, and cost.

- ***Alternative 1***: No action
- ***Alternative 2***: Abatement of all ACBM, leaving roofs of the school and shop intact; encapsulation of all LBP; removal of soil under LBP; removal of PCB light ballasts and mercury-containing thermostats; abatement of mold; and abatement of animal wastes.
- ***Alternative 3***: Same as Alternative 2, except the roof of the school and garage will be abated and LBP will be abated.
- ***Alternative 4***: Same as Alternative 2, except the only building impacted would be the school.
- ***Alternative 5***: Same as Alternative 3, except the only building impacted would be the school.

3.1 Alternative 1: No Action

Under Alternative 1, no actions would be taken to address hazardous materials associated with the building. While there would be no cost associated with this alternative, the owner would not be able to move forward with its redevelopment plans for the site. The risk of exposure to hazardous materials in the building would remain. The No Action Alternative is cost-effective and implementable but results in no environmental benefit and no reduction of human health risks.

- ***Effectiveness***: Not effective - ACBM, LBP, lead in soil, pigeon guano, mercury, mold, and PCBs would remain.
- ***Implementability***: Implementable - Requires no effort or planning.
- ***Cost***: $0.

3.2 Alternative 2

Alternative 2 addresses each of the hazardous substances associated with the property in the following way:

- ***ACBM***: ACBM inside the school, shop, and residence (**Table 1**) would be abated with the buildings intact, with the exception of roofing materials. The standing roof systems at the school and shop would be managed in place and would not be abated. Due to the presence of pigeon guano and mold at the school, disinfecting all surfaces would be required prior to abatement.
- ***LBP***: The LBP shown in **Table 2** will be managed in place and painted with a lead-encapsulating paint.
- ***Animal infestation***: Pigeon guano would be removed and disposed of at the Class II landfill using wet methods to control dust generation. All guano would need to be wrapped with 6-mil plastic before transport to the landfill. Because guano may have contaminated non-ACBM wood flooring. If so, the floors may need to be cut out and containerized for disposal.
- ***Mold***: Under this alternative, mold contaminated surfaces would be cleaned. If cleaning is not able to sufficiently remove the contaminated material or is impractical, contaminated surfaces

are to be removed and disposed of as hazardous waste along with the asbestos waste generated during the abatement.

- ***Lead in soil***: Soil containing elevated concentrations of lead around the perimeter of the residence and shop buildings would be removed and disposed of at the local Class II Landfill. Prior to excavation of these soils, a 5-point composite surface soil sample from a depth of 0-6 inches around each building will be collected and analyzed for total lead by the Toxicity Characteristic Leaching Procedure (TCLP) Method (EPA Method 1311). When collecting the composite sample, a second subsample will be collected from each of the 10 locations and archived pending the TCLP result. The purpose of the sampling would be to demonstrate that the soil, once exhumed, would not be a characterized as hazardous waste. The TCLP result would be compared to the hazardous waste TCLP lead threshold of 5.0 mg/L. If the result is below 5.0 mg/L, the soil can be disposed of at the local landfill. If the result is above 5.0 mg/L, NewFields will work with the owner and the laboratory to determine if treatment of the soils using cement or other binding agents will allow for these soils to be disposed of at the local landfill. Disposal of the soils as a hazardous waste would be prohibitively expensive. Additional actions, should the initial TCLP limit be exceeded, would include analyzing the archived soil samples to narrow down the area that contains the highest concentrations of lead.

  We anticipate that soil from the foundation to 5 feet away from the residence and shop buildings will be excavated to a depth of two feet below grade. The final extent of the excavations will be determined in the field using a hand-held XRF. When the XRF concentrations on the bottom and sidewalls of the excavation are <140 mg/kg total lead, confirmation soil samples will be collected from the bottom and sidewalls and analyzed for total lead at an accredited lab. Confirmation soil samples on the sidewall will be collected at a frequency of one 5-point composite for every 25 linear feet of sidewall. Confirmation soil samples on the bottom will be collected at a frequency of one 5-point composite for every 625 ft^2. The excavations will remain open until the lead results are received.

  Two additional composite sidewall soil samples will be collected in each excavation and held pending the results of the confirmation samples. These samples will be collected to allow for an evaluation of leaching. If the total lead concentrations are below 140 mg/kg, the excavations will be backfilled with clean soils to match the site grade. If the total lead results for the sidewall samples are above the residential direct contact screening level of 200 mg/kg, and/or the sidewall or bottom samples are above the leaching to groundwater screening level of 140 mg/kg, NewFields will work with the landowner and EPA to perform the appropriate next steps. Next steps may include additional excavation (laterally or vertically), additional vertical sampling for lead below the excavation depth, and/or analysis of the additional composite samples held by the Synthetic Precipitation Leaching Procedure (SPLP) Method to evaluate the potential for lead to leach to the underlying groundwater. The option selected will be based on the lead results and the landowner's needs. Given we do not know whether additional steps will be required, no additional steps are included in the cost estimate for this alternative.

- ***Universal wastes***: PCB light ballasts and mercury-containing thermostats in the school would be removed and disposed of in accordance with solid waste regulations.

Overall, Alternative 2 is labor intensive and poses safety risks to workers abating materials in the buildings. It is moderately effective with respect to risk reduction but leaves LBP on the structures that may pose a future exposure risk to lead. Also, the roof would not be abated in this Alternative and would be managed in place. An evaluation summary based on the primary criteria for Alternative 2 is shown below.

- ***Effectiveness***: (Effective). Protective of environment and human health and prepares the site for redevelopment. Leaves LBP in place. However, these paints can be effectively managed in place.
- ***Implementability***: (Moderate).
- ***Cost***: $201,629 (See **Appendix A**).

3.3 Alternative 3

Alternative 3 addresses each of the hazardous substances associated with the property in the following way:

- ***ACBM***: Under this alternative, the ACBM would be addressed in the same manner as described in Alternative 2, with one exception. Whereas in Alternative 2, the standing roof systems at the school and garage would be left in place, under this alternative, contaminants in the roofs be abated.
- ***LBP***: The LBP identified in (**Table 2**) would be stripped, containerized, and disposed of as hazardous waste.
- ***Animal infestation***: Animal wastes would be addressed in the same manner as described in Alternative 2.
- ***Mold***: Mold would be addressed in the same manner as described in Alternative 2.
- ***Lead in soil***: Lead in soil would be addressed in the same manner as described in Alternative 2.
- ***Universal waste***: PCB light ballasts and mercury-containing thermostats in the school would be removed and disposed of in accordance with solid waste regulations.

The primary benefit of Alternative 3 compared to Alternative 2 is LBP would be removed and ACBM in the roofing materials would be abated. Roofing materials are likely to be disturbed during renovations of the building, which would warrant abatement. An evaluation summary based on the primary criteria for Alternative 3 is shown below.

- ***Effectiveness***: (Effective). Protective of environment and human health and prepares site for redevelopment.
- ***Implementability***: (Moderate).
- ***Cost***: $368,166 (See **Appendix A**).

3.4 Alternative 4

Alternative 4 is similar to Alternative 2 but focuses on cleanup of the school building only and does not include cleanup of the residence or shop buildings. Alternative 4 addresses each of the hazardous substances associated with the school in the following way:

- ***ACBM***: ACBM inside the school (**Table 1**) would be abated with the building intact. Due to the presence of pigeon guano and mold at the school, disinfection of all surfaces would be required prior to abatement. Roofing materials would not be abated and would be managed in place. ACBM in the shop and residence would not be abated.

- ***LBP***: The LBP in the school (**Table 2**) will be managed in place and painted with an encapsulating paint. LBP and lead-in-soils at the shop and residence buildings would not be removed or encapsulated.
- ***Animal infestation***: Animal wastes would be addressed in the same manner as described in Alternative 2.
- ***Mold***: Mold would be addressed in the same manner as described in Alternative 2.
- ***Universal waste***: PCB light ballasts and mercury-containing thermostats in the school would be removed and disposed of in accordance with solid waste regulations.

Overall, Alternative 4 is labor intensive and poses safety risks to workers abating materials in the school. It is moderately effective with respect to risk reduction but leaves LBP on the structures and ACBM in the roofing materials that may pose future exposure risk. In addition, contaminants associated with the shop and residence would not be abated or removed. An evaluation summary based on the primary criteria for Alternative 4 is shown below.

- ***Effectiveness***: (Effective). Protective of environment and human health and prepares the school building for redevelopment. Leaves LBP and ACBM in the roofing materials to be managed in place.
- ***Implementability***: (Moderate).
- ***Cost***: $146,105 (See **Appendix A**).

3.5 Alternative 5

Alternative 5 is similar to Alternative 4 in that it focuses on cleanup of the school building only and does not include cleanup of the residence or shop buildings. Alternative 5 addresses each of the hazardous substances associated with the school building in the following way:

- ***ACBM***: All ACBM in the school building, including the roofing materials, would be abated. Due to the presence of pigeon guano and mold at the school, disinfection of all surfaces would be required prior to abatement. ACBM in the shop and residence would not be abated.
- ***LBP***: The LBP identified in the school building (**Table 2**) would be stripped, containerized, and disposed of as hazardous waste. LBP and lead-in-soils at the shop and residence buildings would not be removed.
- ***Animal infestation***: Animal wastes would be addressed in the same manner as described in Alternative 2.
- ***Mold***: Mold would be addressed in the same manner as described in Alternative 2.
- ***Universal wastes***: PCB light ballasts and mercury-containing thermostats in the school would be removed and disposed of in accordance with solid waste regulations.

The primary benefits of Alternative 5 compared to Alternative 4 are that LBP would be removed and ACBM would be abated in the roofing materials at the school building. Roofing materials are likely to be disturbed during renovations of the building, which would warrant abatement. An evaluation summary based on the primary criteria for Alternative 5 is shown below.

- ***Effectiveness***: (Effective). Protective of environment and human health and prepares the school for redevelopment.
- ***Implementability***: (Moderate).
- ***Cost***: $272,288 (See **Appendix A**).

3.6 Climate Change and Clean Remediation

The EPA requires a discussion of whether the alternatives might adversely impact the frequency and intensity of flooding, extreme weather events, and the degree to which the alternatives decrease greenhouse gas discharges, energy use, and wastes disposal. They also require a discussion of how the alternatives vary in their employ of recycling and reuse. Each of these is described below.

3.6.1 Frequency and Intensity of Extreme Weather

None of the alternatives considered for this project is expected to adversely impact the frequency and intensity of flooding or extreme weather events.

3.6.2 Waste Disposal and Recycling

Under Alternative 1 (No Action), no waste is created, and no materials are recycled. Alternatives 4 and 5 would generate less waste and dispose of less waste in the local landfill compared to Alternatives 2 and 3. Fluorescent light tubes would be recycled under all the alternatives except the no-action alternative.

3.6.3 Greenhouse Gas Discharges, Energy Use, and Climate Change

According to the NOAA National Centers for Environmental Information, climate changes predicted for Montana include:

- Continued increases in mean annual air temperatures;
- Increased soil moisture loss during dry periods;
- Increased intensity of droughts;
- Fewer very cold days in the winter;
- Increased springtime precipitation that could result in severe flooding and
- Increased frequency of wildfire occurrence and severity.

If the No Action alternative were selected, there would be no energy used and no discharge of greenhouse gases.. When comparing the other alternatives, there is no appreciable difference between Alternatives 2, 3, 4 or 5 with respect to greenhouse gas discharge or energy use. The proposed cleanup project would not significantly impact the climatic changes described above. In accordance with EPA's Clean Remediation Best Management Practices: Clean Fuel & Emission Technologies for Site Cleanup (EPA, 2010), the alternatives presented above can incorporate best practices to reduce fuel emissions. This may include reduction of idling of construction vehicles while onsite and ensuring that equipment is well maintained to minimize excess fuel use and discharge of un-combusted fuel products. Landfills will be selected as close to the site as possible. Loads will be covered to prevent disposition of waste (EPA, 2019).

4.0 PREFERRED ACTION

The preferred action for the Former Lodge Pole Elementary School Project is Alternative 4. The school building provides the greatest opportunity for redevelopment for FBIC, and Alternative 4 is more affordable than the other alternatives.

Alternative 4 poses less risks to workers and is easier and less costly to implement than Alternative 5. It also satisfies FBIC's desire to remodel the building. Alternatives 4 and 5 both protect human health and the environment, but Alternative 4 is less expensive and manages the roofing materials and LBP in place.

FBIC would seek cost estimates from abatement contractors capable of completing Alternative 4. A copy of the final clearance air sampling report and abatement report describing all abatement completed on the project would be transmitted to the FBCEDC, FBIC, and EPA.

5.0 ADMINISTRATIVE RECORD

For questions or administrative record regarding the proposed project, please contact:

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6.0 REFERENCES

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FIGURES

APPENDIX A

COST ESTIMATES FOR ALTERNATIVES