



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION IX  
75 Hawthorne Street  
San Francisco, CA 94105

**MEMORANDUM**

**DATE:** SEP 23 2019

**SUBJECT:** Request for Approval of a Time-Critical Removal Action, with Exemption to the \$2 Million Statutory Limit, for the Removal Action at the Navajo Forest Products Industries Site, Navajo, McKinley County, New Mexico, Red Lake Chapter, Navajo Nation Indian Reservation.

**FROM:** Michelle Rogow, On-Scene Coordinator  
Emergency Response Section I (SFD-9-1) *MR*

**THROUGH:** Lynn Keller, Section Chief (SFD-9-1) *Lmk*  
Pete Guria, Section Chief (SFD-9-2) *Lmk*  
Sona Chillingaryan, Section Chief (SFD-6-2) *SC*  
Will Duncan, Assistant Director (SFD-6) *WD*  
Dan Meer, Assistant Director (SFD-9)

**TO:** Enrique Manzanilla, Director  
Superfund and Emergency Management Division

**I. PURPOSE**

The purpose of this Action Memorandum is to request and document approval to spend up to \$3,400,000 in direct extramural costs and to request an emergency exemption from the \$2 million statutory cost limit to mitigate threats to human health and the environment posed by the presence of asbestos, a hazardous substance, at the former Navajo Forest Products Industries Site (the Site). The proposed action also includes nationally significant or precedent-setting issues in that the hazardous substance of concern is asbestos and the Site is owned by a Navajo Nation tribal entity and located on Navajo Nation lands.

If approved, this Action Memorandum will serve to document Region 9's authorization of the expenditures required for U.S. EPA to take the actions described herein to address a release, or threat of release, of hazardous substances that pose a danger to the community in close proximity to the Site. The proposed removal of hazardous substances would be undertaken pursuant to Section 104(a)(1) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 42 U.S.C. § 9604(a)(1), and Section 300.415 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), 40 CFR § 300.415. An emergency exemption from the \$2 million statutory limit is justifiable under criteria of Section 104(c) of CERCLA, 42 U.S.C. § 9604(c) and 40 C.F.R. § 300.415(b)(5)(i), which allows for an exemption from the statutory requirements when: there is an immediate risk to public health or welfare or the

environment; continued response actions are immediately required to prevent, limit, or mitigate an emergency; and such assistance will not otherwise be provided on a timely basis. Conditions at the Site meet the criteria for the exemption from the statutory limit, and if not addressed by implementing the immediate response action documented in this memorandum, may lead to additional human exposure to asbestos.

## **II. SITE CONDITIONS AND BACKGROUND**

Site Status: Non-NPL  
Category of Removal: Time-Critical  
SITE ID: 091R

### **A. Site Description**

#### **1. Physical Location**

The Site is the former Navajo Forest Product Industries (NFPI) facility, which encompasses 103 acres located in the town of Navajo, Route 12 and Cleveland Boulevard, Red Lake Chapter, Navajo Nation and is located within McKinley County, New Mexico. See Attachment 2 for a Site Location Map.

#### **2. Site Characteristics**

NFPI began as a sawmill in 1960. Operations began with standard sawmill operations focused on producing lumber. During the 1980's particle board operations were added with the goal of adding higher-grade value products. Approximately 31 buildings were built for the NFPI operations during its peak operation. The main buildings of operations during the peak included the following: sawmill; kiln; dry stock inventory; stacker; rough sorting; rough dry inventory; planer; millworks cut stock; millworks; raw particleboard; main particleboard; finish particleboard; multiple (large and small) storage; warehouse; power house; heavy equipment; electric maintenance and administration. Operations at the facility ended in 1995. Since that time, most of the buildings have been demolished, except for the kiln, administration, and heavy equipment buildings.

The primary concern of the proposed removal action is the large, dilapidated standing concrete kiln building which was used to dry the processed lumber at the facility. Significant amounts of asbestos containing material (ACM) have been detected in deteriorating condition on both internal and external portions of the building and on top of and in nearby soils. The Red Lake Chapter House, which was built after the facility had ceased operating, is located on the Site and near the kiln building. The Red Lake Chapter once utilized the former heavy equipment building, however now a propane distribution business is now operating out of the that building, the former administrative building and other structures on Site. These are all located near to the kiln building. Offsite, a school and residences are located within .10 and .25 miles, respectively, of the kiln building.

Due to the condition and construction of the kiln building, visual ACM on the ground and in soils near the kiln building, and the proximity to potential receptors, Navajo Nation EPA

(NNEPA) representatives requested that U.S. EPA evaluate and consider the Site for a time critical removal action.

### **3. Removal Site Evaluation**

In February 2018, EPA with support from its Emergency and Rapid Response Services (ERRS) and Superfund Technical Assessment & Response Team (START) contractors, in partnership with NNEPA, collected 16 suspected asbestos containing bulk samples of suspect ACM from the area on the ground around the outside of the kiln building and what could be safely collected from the outside of the structure itself for laboratory analysis. All sixteen samples demonstrated the presence of asbestos containing material, the highest concentration being 20% chrysotile. (EMSL Analytical, Inc., Navajo Forest Products Industry Site, Test Report: Asbestos Analysis of Bulk Materials, 26 February 2018)

In July 2018, EPA, ERRS and START personnel participated in a Site walk with NNEPA Red Lake Chapter representatives, and other interested parties. This Site walk allowed for the ERRS subcontracted asbestos professional to perform a visual asbestos assessment and develop a potential sequence of asbestos removal operations for the kiln building located at the Site. The visual assessment suggested asbestos containing transite paneling was also present on the roof of the kiln building. In addition, during the Site walk, an ERRS subcontracted Professional Engineering firm performed a visual structural evaluation of the kiln building. The overall condition of the building was described as fair to poor and it was recommended that a civil engineer and possibly additional engineering support be utilized if additional work is to be performed. (Navajo Forest Products Building Assessment Visual Structural Evaluation, Dekker/Perich/Sabatini, July 2018).

As part of the NNEPA Phase I investigation of the Site a NNEPA contractor collected six soil samples at the Site and analyzed them for asbestos on August 30, 2018. The soil samples were collected to the east of the kiln building, in the vicinity of the former warehouse. Six soil samples tested positive for chrysotile, with percentages ranging from 1.48% to 1.92%. (Comprehensive Asbestos Containing Building Materials Survey, Envision Environmental Solutions, LLC, 18 August 2018)

A different NNEPA contractor conducted follow-up asbestos sampling based on the soil sample in October 2018. Fifty-five 5-point composite soil samples were collected to the east of the kiln building. Four of the 55 the composite soil samples were positive for chrysotile at percentages ranging from 1.55% to 2.04%. (Phase I Continued Site Assessment, NAV477 Navajo Forestry Products Industry, Navajo, McKinley County, New Mexico. Tiis Ya Toh, Inc., 25 November 2018)

An additional Site visit was conducted on June 18, 2019 with EPA, NNEPA, ERRS and START personnel participating. The purpose of this Site visit was to further evaluate the building materials and the soil surrounding the kiln building for the presence of asbestos. In addition, a preliminary assessment to evaluate building material debris located throughout the Site for the presence of asbestos and other potential contamination was performed during the Site walk. Sampling locations were selected to close data gaps associated with previous building material investigations associated with the kiln building, and to begin assessing other areas of the Site

where building debris was identified. Forty-two bulk asbestos samples were collected at the Site: thirteen were collected to further define the presence of ACM at the kiln building and the remaining 29 samples were collected as a limited assessment of building material debris associated with other former NFPI buildings (that have been demolished) throughout the Site including the main particle building, power house, and warehouse. Composite soil samples were also collected to evaluate potential asbestos contamination around the kiln building. Of the 13 bulk samples collected to further evaluate the building materials associated with the kiln building, six samples contained asbestos at concentrations ranging from 2% to 15% chrysotile. Of the remaining 29 bulk samples collected from the debris located throughout the Site, seven samples contained asbestos at concentrations ranging from 3% to 60% chrysotile. (NFPI 2019 Site Assessment Report, Weston Solutions Inc., 12 August 2019).

START also collected 16 surface soil samples and eight subsurface soil samples for asbestos analysis during the June 2019 site walk in the vicinity of the kiln building. One surface soil sample contained 1.25% actinolite and two surface soil samples contained <0.25% chrysotile. (NFPI 2019 Site Assessment Report, Weston Solutions Inc., 12 August 2019).

See Attachment 2 for a tabulated summary of positive asbestos sampling results as well as figures depicting the associated sampling locations.

Based on the above-described assessment results and the proximity of the kiln building, asbestos on and in surface soils and debris piles to the former NFPI buildings that are in-use, the Red Lake Chapter House, and the nearby school and residences, U.S. EPA's OSC is requesting approval for a time-critical removal action.

#### **4. Release or threatened release into the environment of a hazardous substance, or pollutant or contaminant**

Asbestos is a hazardous substance as defined in Section 101(14) of CERCLA, 42 U.S.C. § 9601.

According to the Agency for Toxic Substance and Disease Registry (ATSDR), asbestos exposure can cause serious lung problems and cancer.

As discussed in Section A.3. above, Region 9 has documented the presence of friable asbestos in surface soils through sampling and laboratory analysis and has observed visual asbestos containing material in close proximity to on-site buildings that are in-use, the Red Lake Chapter House, and nearby school and residences located next to the Site in Navajo, New Mexico.

#### **5. NPL status**

The Site is not on the National Priorities List (NPL) nor is it proposed to be on the NPL.

## **B. Other Actions to Date**

In 1993 EPA removed 88 abandoned drums from the Site. In 1998 EPA removed large PCB-containing transformers and capacitors from the Site. In 2000, Terranova Forest Products, Inc. conducted a partial clean-up of ACM at the power house. In addition to the evaluative activities discussed in section A.3 above, the NNEPA Underground Storage Tank program has initiated a project to address petroleum contamination in soils and in groundwater at the Site. A 2012 Phase 1 study identified the presence of suspect ACM at the Powerplant Building with indications that some ACM removal had been initiated. That building has since been demolished. No other response actions are known to have occurred at the Site to address the risks associated with the presence of asbestos containing material.

## **C. State and Local Authorities' Roles**

### **1. State and local actions to date**

Other than the above-referenced work at the now-demolished power house, no state or tribal actions are known to have taken place at the Site to address the presence of ACM. Discussions with the Navajo Nation indicate that they do not have the resources to properly mitigate the hazards associated with ACM at the Site. EPA has consulted with NNEPA and will continue to involve NNEPA in the planning and execution of this removal action in accordance with the EPA Policy on consultation and coordination with Indian Tribes. These discussions constitute tribal consultation.<sup>1</sup> The Site is not in the jurisdiction of the New Mexico Environment Department.

### **2. Potential for continued response**

NNEPA continues to have concerns regarding former business practices of NFPI and other potential sources of contamination. NNEPA is in the process of conducting a Phase 1 / Phase 2 evaluation of the Site to determine if there are any other contaminants present on the Site, and if the site warrants additional emergency response or other efforts.

## **III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES**

Current Site conditions pose threats of ongoing releases, and a threat of future releases, of hazardous substances, namely: asbestos fibers and heavy metals. The likelihood of direct human exposure, via inhalation of hazardous substances, and the threat of future releases and migration of those substances, pose a threat to public health or welfare of the United States or the environment based on the factors set forth in the NCP, 40 CFR § 300.415(b)(2), and described in further detail below.

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<sup>1</sup> See <http://www.epa.gov/tp/pdf/cons-and-coord-with-indian-tribes-policy.pdf>

**1. *Actual or potential exposure to nearby populations, animals, or the food chain from hazardous substances or pollutants or contaminants***

The Site includes a large concrete structure that is constructed with ACM that is dilapidated and crumbling. The building's east side is open to the environment, the lack of removal or enclosure has allowed ACM to migrate to the outside of the structure impacting the surrounding area. Asbestos is present in the open building, as well as loose on the ground in debris and in soils EPA's sampling indicates that asbestos debris and fibers have migrated from the building and that an inhalation exposure pathway exists due to this material being uncontained. Single family residences, a school and the local chapter house, and buildings on Site occupied for businesses, are nearby. These receptors remain at risk due to the uncontained asbestos. Exposure to airborne friable asbestos may result in potential health risk because persons breathing the air may breathe in asbestos fibers. Continued exposure can increase the amount of fibers that remain in the lungs. Fibers embedded in lung tissue over time may cause serious lung diseases, including asbestosis, lung cancer, or mesothelioma.

**2. *High levels of hazardous substances or pollutants or contaminants in soils largely at or near the surface that may migrate;***

Analytical results show that ACM is present on the ground and asbestos in surface soils in localized areas of the Site. There are several pathways by which the asbestos fibers can become entrained in air leading to inhalation exposures. For example, fibers can enter the air from the wearing down of the ACM found on-site. With time and exposure to damaging forces (e.g., mechanical forces, weather, etc.), the ACM may become further crumbled, pulverized or reduced to powder, thereby releasing asbestos fibers, or may deteriorate to the extent that they may release asbestos fibers if disturbed.

**3. *Weather conditions that may cause hazardous substances or pollutants or contaminants to migrate or be released;***

ACM is present on the ground and asbestos fibers have been detected in surface soils at the Site. Asbestos fibers can enter the air from the wearing down of the ACM. Wind, particularly in dry summer months, can lead to the migration of small asbestos fibers, and fiber-containing particles may remain suspended in the air for long time and be carried long distances by wind before settling. The ACM at the Site may present a potential threat to the public health or welfare or the environment through migration as windblown particles or suspended in rainwater water runoff.

**4. *The availability of other appropriate federal and state response mechanisms to respond to the release;***

The NNEPA has indicated that it lacks the resources to perform the removal actions necessary at this Site in a timely manner.

#### **IV. ENDANGERMENT DETERMINATION**

Given the conditions at the Site, the nature of the confirmed hazardous substance, and the potential exposure pathways described in Sections II and III above, actual or threatened releases of asbestos from this Site, if not addressed by implementing the response actions selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, or welfare, or the environment.

#### **V. EXEMPTION FROM STATUTORY LIMITS**

EPA is requesting \$3,400,000 in direct extramural cleanup costs, which is above the \$2 million statutory limit. Subject to exemptions, 42 U.S.C. § 9604(c)(1) states that removal actions should not continue after \$2 million has been obligated for response actions. Pursuant to EPA delegations 14-2 and R9 1290.03A, the Assistant Director to the Superfund Division is authorized to determine whether an exemption from this statutory limitation is warranted. Region 9 believes that, consistent with the standards for exemptions stated in 42 U.S.C. § 9604(c)(1)(A) and 40 C.F.R. § 300.415(b)(5), an exception to the cost limit for removal actions is warranted for the reasons described below.

##### **1. There is an immediate risk to public health or welfare or the environment**

Analytical results reveal the presence of ACM in deteriorating condition in the kiln building as well as asbestos in surface soils near a community chapter house, a child care center and residential properties. Dry, windy conditions could cause asbestos fibers located at or near the surface to become airborne and pose a health hazard to nearby residential and public populations.

##### **2. Continued response actions are immediately required to prevent, limit or mitigate an emergency**

Based on results of the asbestos sampling, the condition of the building and the proximity to the community, continued response actions are required to mitigate avoidable exposures to the public of the hazardous substance as described in this Action Memorandum.

##### **3. Assistance will not otherwise be provided on a timely basis**

NNEPA has neither the capabilities nor resources to carry out this effort in a timely manner. If U.S. EPA does not begin the proposed removal action immediately, the community's risk of exposure to asbestos fibers will continue unabated.

#### **VI. PROPOSED ACTIONS AND ESTIMATED COSTS**

##### **A. Proposed Actions**

##### **1. Proposed action description**

The proposed removal action will mitigate the release or threat or release of hazardous substances that is causing a threat to public health or welfare or the environment by taking steps

to prevent the release of asbestos fibers and heavy metals. The removal action, to be conducted over a 10-week period, will include the following objectives to prevent human exposure to asbestos fibers at the Site:

- Develop and implement a Site-Specific Health and Safety Plan, a Site Emergency Contingency Plan and a Perimeter Air Sampling Plan;
- Develop and implement a Site Work Plan that incorporates an ACM debris management plan, including appropriate measures to control ACM dust during the removal;
- Remove all or portions of the former concrete kiln building and retrieve ACM;
- Characterize and segregate, when possible, ACM waste from waste not containing ACM;
- Remove asbestos-containing material and asbestos-containing soil from the area surrounding the former concrete kiln building and other demolished buildings on Site;
- Load, transport, and dispose of all ACM-impacted waste, and other identified hazardous substances, pollutants, or contaminants from debris piles at a U.S. EPA-approved disposal facility in accordance with U.S. EPA's Off-Site Rule (40 CFR §300.440);
- Decontaminate concrete pads and heavy equipment, as necessary and appropriately dispose of decontamination water; and
- Conduct confirmation sampling and analysis.

The OSC will evaluate the need for post removal site controls (PRSCs), consistent with the provisions of § 300.415 of the NCP. EPA will respond to the threat and ensure that the emergency created by the ACM and asbestos containing soil has been mitigated. If post-removal site controls (PRSCs) are determined to be necessary, the OSC will work with the Tribe to identify a private or governmental entity who is willing and able to assume responsibility for the PRSC.

## **2. Contribution to remedial performance**

This removal action should remove any immediate threats posed by uncontrolled hazardous substances at the Site and is consistent with any long-term remedial action.

### The long-term cleanup plan for the Site:

There are no long-term remedial actions anticipated for the Site. As noted above, the Site is currently not on the NPL nor proposed for the NPL.

### Threats that will require attention prior to the start of a long-term cleanup:

In order to determine whether a long-term cleanup is necessary or warranted, further assessment must be conducted to determine if any other hazardous substances have not been abated during this removal action.

### The extent to which the removal will ensure that threats are adequately abated:

The purpose of this removal action is to mitigate the threat of asbestos from the Site.

### Consistency with the long-term remedy:

This action would be consistent with any proposed long-term remedy (including no further action). The removal of asbestos in and around the kiln building, and loose on the Site will assist in making the Site safer for any subsequent response work.

### 3. Applicable or relevant and appropriate requirements (ARARs)

Section 300.415(j) of the NCP provides that removal actions must attain ARARs to the extent practicable considering the exigencies of the situation.

Section 300.5 of the NCP defines applicable requirements as cleanup standards, standards of control, and other substantive environmental protection requirements, criteria or limitations promulgated under Federal environmental or State environmental or facility citing laws that specifically address a hazardous substance, pollutant, contaminant, remedial action, location or other circumstances at a CERCLA site.

Section 300.5 of the NCP defines relevant and appropriate requirements as cleanup standards, standards of control and other substantive requirements, criteria, or limitations promulgated under Federal environmental or State environmental or facility citing laws that, while not “applicable” to a hazardous substance, pollutant, or contaminant, remedial action, location, or other circumstances at a CERCLA site, address problems or situations sufficiently similar to those encountered at the CERCLA site and are well-suited to the particular site.

Pursuant to CERCLA section 121(e), CERCLA on-site response actions do not require permitting; only substantive requirements are considered as possible ARARs. Administrative requirements such as approval of, or consultation with administrative bodies, issuance of permits, documentation, reporting, record-keeping and enforcement are not ARARs for the CERCLA actions confined to the site.

Federal ARARs determined to be practicable for the Site are:

- U.S. Department of Transportation of Hazardous Materials Regulations, 49 CFR Part 171, 172 and 173
- Resource Conservation and Recovery Act, as amended (RCRA), 42 U.S.C. §§ 6901 et seq., and its implementing regulations (40 CFR Parts 260 -265, and 268), including but not limited to the following specific requirements identified at this time: 40 CFR §§ 261.10 and 261.24, relating to characteristics of hazardous wastes including the toxicity characteristic; 40 CFR §§ 262.20, 262.21, 262.22, 262.23, 262.30, 262.31, and 262.32, relating to hazardous waste manifesting and labeling requirements prior to transportation of hazardous waste containers off-site; 40 CFR §§ 263.20 and 263.21, relating to off-site transport of hazardous waste (handling and manifesting requirements); and 40 CFR § 268, relating to off-site and on-site land disposal restrictions for hazardous wastes.
- National Emission Standards for Hazardous Air Pollutants (NESHAP) 40 CFR. Part 61, Subparts A & M, apply to the removal and disposal of asbestos and ACM, in particular 40 CFR § 61.145. Native American Graves Protection and Repatriation Act, 25 USC Section 3001 *et seq.* and its implementing regulations, 43 CFR Part 10
- National Historic Preservation Act, 16 USC Section 470 *et seq.* and its implementing regulations, 36 CFR Part 800
- Endangered Species Act, 16 U.S.C. §1531 et seq.
- Archeological Resources Protection Act of 1979, 16 USC Section 47000 *et seq.* and its implementing regulations, 43 CFR Part 7

- American Indian Religious Freedom Act, 42 USC Section 1996 *et seq.*

Navajo Nation DOJ transmitted a list of ARARs to EPA Region 9 on August 30, 2019 and provided an updated list on September 11, 2019. After review of the list provided, the Navajo Nation, Tribal ARARs determined to be practicable for the Site are:

- Navajo Nation Environmental Protection Act, Title 4 of the Navajo Nation Code
- Navajo Nation Fundamental Law (1 Navajo Nation Code §§201-206)
- Navajo Nation CERCLA (4 Navajo Nation Code §§2101 *et seq.*)
- Navajo Nation Endangered Species List – Resource Committee Resolution (RCAU-103-05)
- Navajo Nation Clean Water Act and Navajo Nation Surface Water Quality Standards – Title 4 Navajo Nation Code
- Navajo Nation Solid Waste Act – Subchapter 2 – Prohibited Acts and Subchapter 5 – Enforcement
- Navajo Nation Pollutant Discharge Elimination System Program

#### 4. Project schedule

EPA estimates that it will take approximately ten weeks to complete the removal, including demolition, asbestos abatement, excavation, transport, and disposal.

#### B. Estimated Extramural Costs

##### Regional Removal Allowance Costs

ERRS Contractor Costs	\$2,000,000
START Contractor Costs	\$800,000
USCG PST Costs	\$25,000
Extramural Contingency (20% of Subtotal)	\$575,000
<b>Total Removal Action Project Ceiling</b>	<b>\$3,400,000*</b>

**\*The EPA direct and indirect costs, although cost recoverable, do not count toward the Removal Ceiling for this removal action. Liable parties may be held financially responsible for costs incurred by the EPA as set forth in Section 107 of CERCLA.**

#### VII. EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN

Given the Site conditions, the nature of the hazardous substances documented on-site, and the potential exposure pathways to nearby populations described in Sections III and IV above, actual or threatened releases of hazardous substances from the Site, if not addressed by implementing the response actions selected in this Action Memorandum, may continue to present a threat to public health or welfare or the environment.

## VIII. OUTSTANDING POLICY ISSUES

The proposed removal involves nationally significant and precedent-setting issues in that the hazardous substance of concern is asbestos and the Site is owned by a Navajo Nation tribal entity and located on Navajo Nation lands.

## IX. ENFORCEMENT

Please see the attached Confidential Enforcement Addendum for a discussion regarding potentially responsible parties (PRPs). The following intramural costs are also recoverable:

### Estimated EPA costs for this Removal Action

U.S. EPA Direct Costs <sup>2</sup>	\$100,000
U.S. EPA Indirect Costs (50.65% of Spending: \$3,400,000 + \$100,000)	\$1,772,750
<b>TOTAL</b>	<b>\$1,872,750</b>

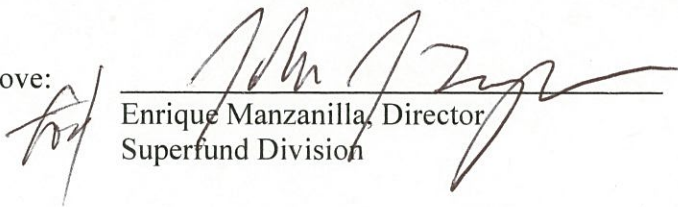
The total U.S. EPA extramural and intramural costs for this removal action, based on full-cost accounting practices that will be eligible for cost recovery are estimated to be \$5,272,750.

## X. RECOMMENDATION

This decision document represents the selected removal action for the NFPI Site, developed in accordance with CERCLA and is not inconsistent with the NCP. This decision is based on the Administrative Record for the Site.

Because conditions at the Site meet the NCP Section 300.415(b) criteria for a removal and the CERCLA Section 104(c) emergency exemption from the \$2 million statutory limitation, EPA staff recommends the approval of the removal action proposed in this Action Memorandum. The total project ceiling if approved will be \$5,272,750 of which an estimated \$3,400,000 comes from the Regional Removal Allowance. Approval may be indicated by signing below.

Approve:

  
Enrique Manzanilla, Director  
Superfund Division

9/23/09  
Date

Disapprove:

\_\_\_\_\_  
Enrique Manzanilla, Director  
Superfund Division

\_\_\_\_\_  
Date

<sup>2</sup> Direct costs include direct extramural costs and direct intramural costs. Indirect costs are calculated based on an estimated indirect cost rate expressed as a percentage of site-specific direct costs, consistent with the full cost accounting methodology effective October 2, 2000. These estimates do not include pre-judgment interest, do not take into account other enforcement costs, including Department of Justice costs, and may be adjusted during the course of a removal action. The estimates are for illustrative purposes only and their use is not intended to create any rights for responsible parties. Neither the lack of a total cost estimate nor deviation of actual costs from this estimate will affect the United States' right to cost recovery.

Attachments:

1. Index to the Administrative Record
2. Location Map, Figures, Table & Photos
3. ATSDR ToxFAQs (Asbestos)

Enforcement Confidential Addendum

cc (via email):

Stephanie Wenning, U.S. EPA, HQ OEM  
Oliver B. Whaley, Navajo Nation Environmental Protection Agency  
Harrison Karr, Navajo Nation Department of Justice  
Steven Spencer, U.S. Department of Interior  
Ron Maldonado, Navajo Nation Historic Preservation Department

bcc: Site File  
T. Dunkelman, SFD-9-1  
T. Fitzgerald, SFD-9-1  
J. Johnstone, SFD-9-1  
M. Rogow, SFD-9-1  
L. Keller, SFD-9-1  
P. Guria, SFD-9-2  
K. Lawrence, SFD-9-3  
M. Matthews, SFD-9-3  
B. Lee, SFD-9-3  
S. Arbaugh, SFD-7-5  
K. Castro, SFD-2  
R. Reynolds, ORC-3

**ATTACHMENT 1**  
**INDEX TO THE ADMINISTRATIVE RECORD**

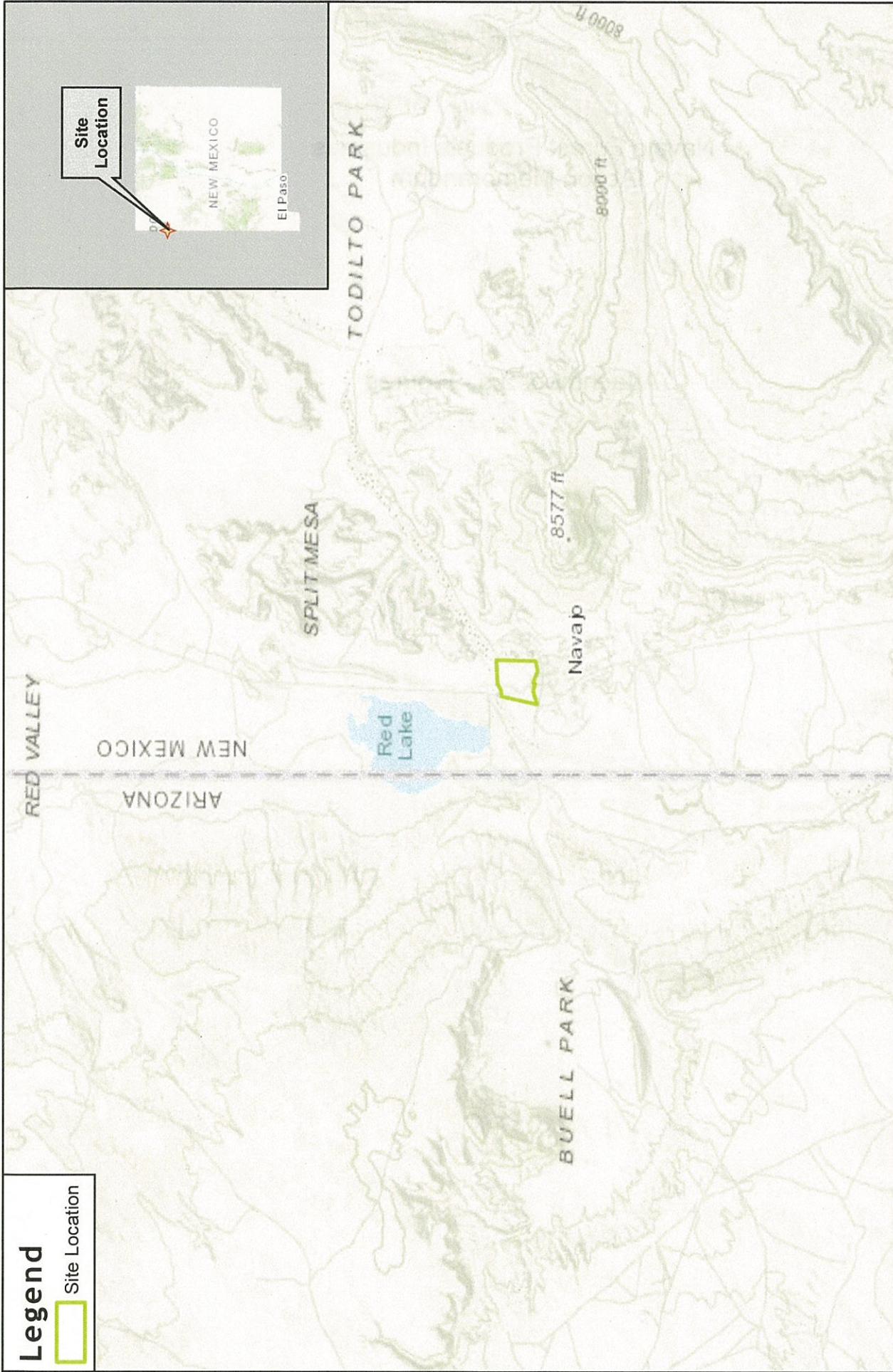
1. Agency for Toxic Substances and Disease Registry (ATSDR) ToxFAQs, Asbestos CAS#1332-21-4, September 2001a.
2. Draft Updated Phase I Environmental Site Assessment, Former Navajo Forest Products Industry Site, Navajo, New Mexico, Daniel B. Stephens & Associates, Inc., 7 September 2012.
3. EMSL Analytical, Inc., Navajo Forest Products Industry Site, Test Report: Asbestos Analysis of Bulk Materials, 26 February 2018.
4. Navajo Forest Products Building Assessment Visual Structural Evaluation, Dekker/Perich/Sabatini, July 2018.
5. Comprehensive Asbestos Containing Building Materials Survey, Envision Environmental Solutions, LLC, 18 August 2018.
6. Phase I Continued Site Assessment, NAV477 Navajo Forestry Products Industry, Navajo, McKinley County, New Mexico. Tiis Ya Toh, Inc., 25 November 2018.
7. Navajo Forest Products Industries (NFPI) 2019 Site Assessment Report, Weston Solutions Inc., 12 August 2019.
8. Tribal Request Letter
9. Tribal ARARs; Navajo Nation Department of Justice, 30 August 2019
10. Tribal ARARs updated; Navajo Nation Department of Justice, 11 September 2019

Navajo Forest Products Industries  
Action Memorandum

Attachment 2 –  
Location Map, Figures,  
Table, Photos

Navajo Forest Products Industries  
Action Memorandum

Attachment 2.a– Location Map



# Legend

Site Location



**PREPARED BY:**  
 Region 9, START  
 Weston Solutions, Inc.  
 2300 Clayton Road  
 Suite 900  
 Concord, CA 94520



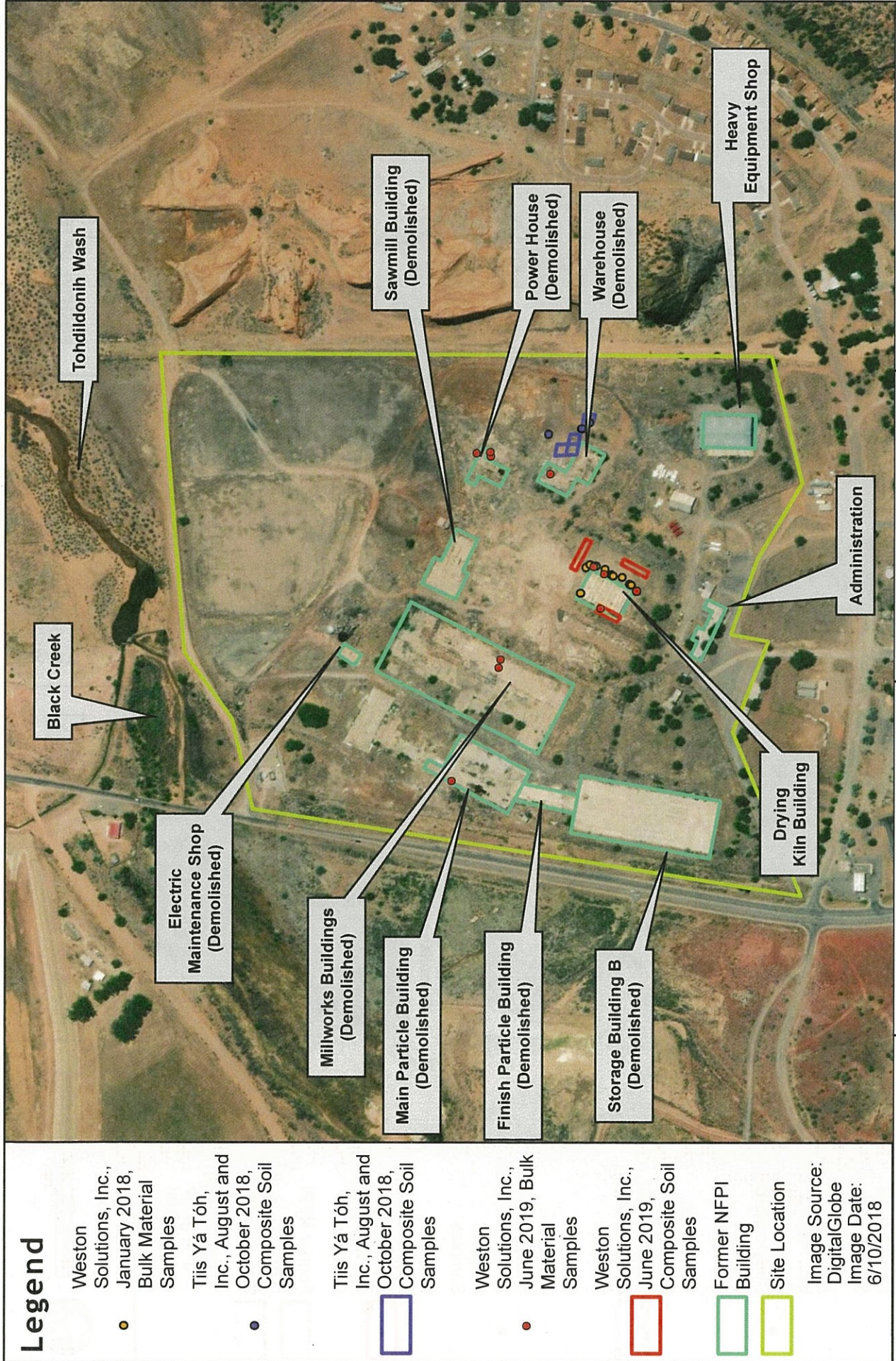
**PREPARED FOR:**  
 EPA Region 9  
 Pacific  
 Southwest



**FIGURE 1**  
**SITE LOCATION**  
 Former Navajo Forest Products Industries  
 Navajo, McKinley County, New Mexico

**Navajo Forest Products Industries  
Action Memorandum**

**Attachment 2.b - Figures**



# Legend

- Weston Solutions, Inc., January 2018, Bulk Material Samples
- Tiis Yá Tóh, Inc., August and October 2018, Composite Soil Samples
- Tiis Yá Tóh, Inc., August and October 2018, Composite Soil Samples
- Weston Solutions, Inc., June 2019, Bulk Material Samples
- Weston Solutions, Inc., June 2019, Composite Soil Samples
- Former NFPI Building
- Site Location
- Image Source: DigitalGlobe  
 Image Date: 6/10/2018



## PREPARED BY:

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 Weston Solutions, Inc.  
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 Suite 900  
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## PREPARED FOR:

EPA Region 9  
 Pacific Southwest



## FIGURE 1

**SITE LAYOUT AND  
 POSITIVE DETECTIONS OF ASBESTOS**  
 Former Navajo Forest Products Industries  
 Navajo, McKinley County, New Mexico

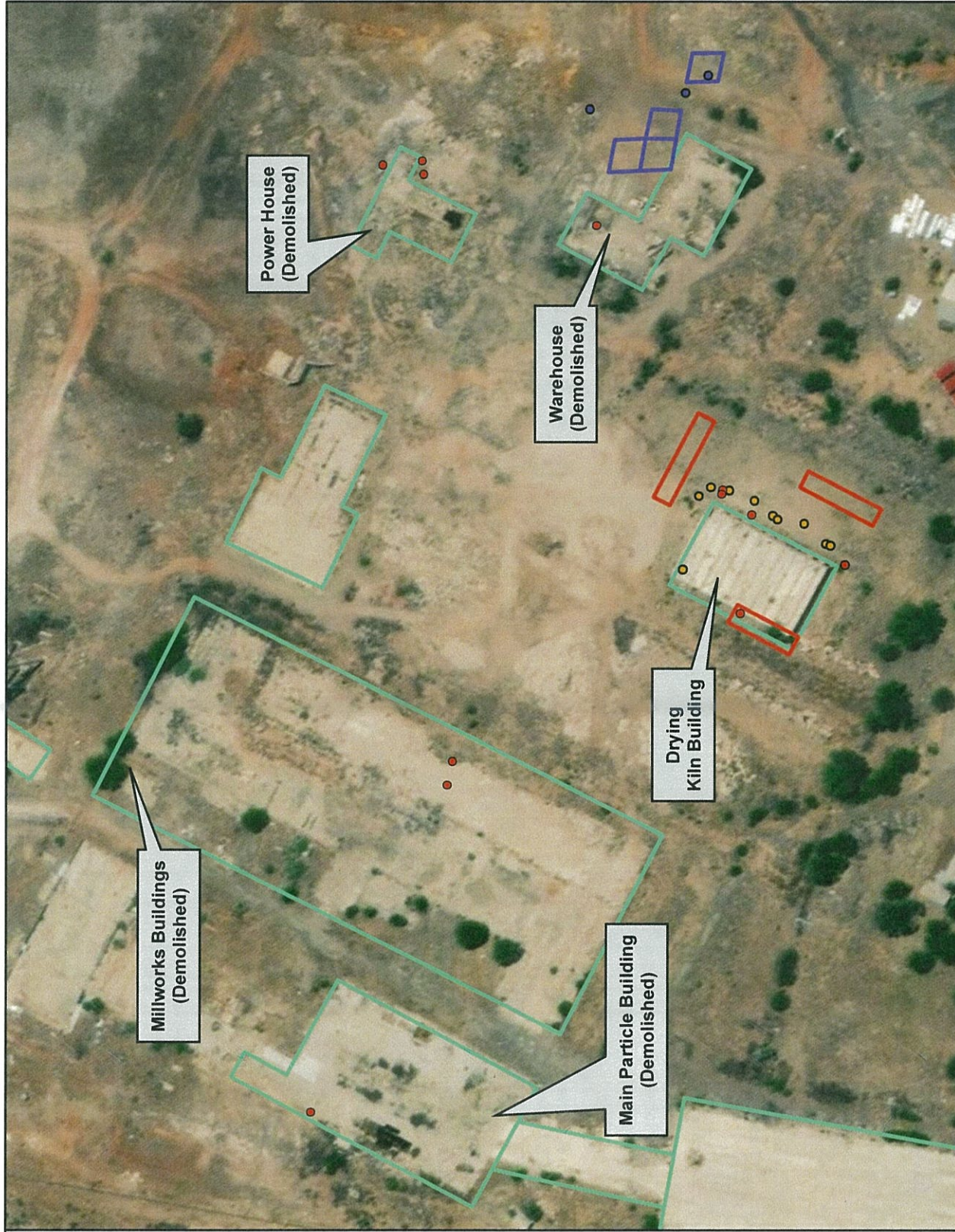
# Legend

- Weston Solutions, Inc., January 2018, Bulk Material Samples
- 
- Tiis Yá Tóh, Inc., August and October 2018, Composite Soil Samples
- 
- Tiis Yá Tóh, Inc., August and October 2018, Composite Soil Samples
- 

- Weston Solutions, Inc., June 2019, Bulk Material Samples
- 
- Weston Solutions, Inc., June 2019, Composite Soil Samples
- 

- Former NFPI Building
- 
- Site Location
- 

Image Source: DigitalGlobe  
Image Date: 6/10/2018



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**FIGURE 2**  
**POSITIVE DETECTIONS OF ASBESTOS**  
Former Navajo Forest Products Industries  
Navajo, McKinley County, New Mexico

Navajo Forest Products Industries  
Action Memorandum

Attachment 2.c – Table 1

Positive Detections of Asbestos in Building Materials and Soil Samples

Navajo Forest Products Industries  
Action Memorandum

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Attachment 2.c – Table 1

Positive Detections of Asbestos in Building Materials and Soil Samples

**Table 1**  
**Positive Detections of Asbestos in Building Materials and Soil Samples**  
**Navajo Forest Product Industries (NFPI)**  
**Red Lake, Navajo Nation, New Mexico**

Sample Number	Description	Appearance	Asbestos (%/Type)
<b>Weston Solutions, January 2018, Bulk Material Samples<sup>1</sup></b>			
18-835-02-Silver Paint	NFPI - 3rd Bay -Ground - Roofing Material	Silver Non-Fibrous Homogenous	2% Chrysotile
18-835-02-Roofing	NFPI - 3rd Bay - Ground - Roofing Material	Black Fibrous Homogeneous	8% Chrysotile
18-835-03-Silver Paint	NFPI - 7th Bay - Ground - Roofing Material	Silver 98% Non-Fibrous Homogeneous	2% Chrysotile
18-835-03-Roofing	NFPI - 7th Bay - Ground - Roofing Material	Black Fibrous Homogeneous	8% Chrysotile
18-835-04-Silver Paint	NFPI - N. of Bldg. -Ground - Roofing Material	Silver Non-Fibrous Homogeneous	2% Chrysotile
18-835-04-Roofing	NFPI - N. of Bldg. - Ground - Roofing Material	Black Fibrous Homogeneous	4% Chrysotile
18-835-05-Silver Paint	NFPI - N. of North Bay - Ground - Roofing Material	Silver Non-Fibrous Homogeneous	2% Chrysotile
18-835-05-Roofing	NFPI - N. of North Bay - Ground - Roofing Material	Black Fibrous Homogeneous	8% Chrysotile
18-835-07A	NFPI - North Bay 2 - Wall - Wall Covering Material	Brown/Gray/Silver Non-Fibrous Homogeneous	4% Chrysotile
18-835-07B	NFPI - North Bay - Ground - Roofing Material	Beige 80% Non-Fibrous Homogeneous	20% Chrysotile
18-835-09	NFPI - 4th Bay - Wall - Metal Covering Material	Brown/Silver Non-Fibrous Homogeneous	3% Chrysotile
18-835-10	NFPI - 5th Bay - Pipe Hole - Piping Material	Black/Silver Fibrous Homogeneous	5% Chrysotile
18-835-11	NFPI - 9th Bay - Wall - Wall Material	Silver 95% Non-Fibrous Homogeneous	5% Chrysotile
18-835-12	NFPI - S. of Bldg. - Ground - Roofing Material	Brown 80% Fibrous Homogeneous	20% Chrysotile
18-835-14	NFPI - North Side of Bldg. - Wall Covering	White/Black Fibrous Homogeneous	8% Chrysotile
18-835-15	NFPI - 9th Bay - Wall - Wall Covering	Black/Silver Fibrous Homogeneous	6% Chrysotile
<b>Weston Solutions, June 2019, Bulk Material Samples<sup>2</sup></b>			
H2-1-Floor Tile	Floor Tile - Gray/ Black	Brown/Gray Non-Fibrous Homogeneous	3% Chrysotile
H2-1-Mastic	Mastic	Black Fibrous Homogeneous	6% Chrysotile
H3-1	Asphaltic Roofic Debris - Black	Black Fibrous Homogeneous	60% Chrysotile
H11-1	Black Mastic	Homogeneous	5% Chrysotile
H-11-2	Black Mastic	Black/Silver Non-Fibrous Homogeneous	7% Chrysotile
H14-1	Black Coating on Metal Panel	Homogeneous	12% Chrysotile
H16-1	Black Flat Debris	Black Fibrous Homogeneous	15% Chrysotile
H19-1	Transite Panel	Gray Fibrous Homogeneous	18% Chrysotile
H21-1	Transite Corrugated Roofing	Gray Fibrous Homogeneous	10% Chrysotile
H21-2	Transite Corrugated Roofing	Gray Fibrous Homogeneous	15% Chrysotile

**Table 1**  
**Positive Detections of Asbestos in Building Materials and Soil Samples**  
**Navajo Forest Product Industries (NFPI)**  
**Red Lake, Navajo Nation, New Mexico**

Sample Number	Description	Appearance	Asbestos (%/Type)
H24-1	Coating on Interior Metal - Black	Black/ Silver Non-Fibrous Heterogeneous	2% Chrysotile
H24-2	Coating on Interior Metal - Black	Black/ Silver Non-Fibrous Heterogeneous	3% Chrysotile
H26-1	Black Asphaltic Roofing	Black Fibrous Homogeneous	3% Chrysotile
H26-2	Black Asphaltic Roofing	Black/ Silver Non-Fibrous Homogeneous	3% Chrysotile
<b>Tiis Yá Tóh, August and October 2018, Composite Soil Samples<sup>3</sup></b>			
A1 Asb #1	Soil	NA	1.48-1.81% Chrysotile
A1 Asb #2	Soil	NA	1.57-1.92% Chrysotile
A2 Asb #2	Soil	NA	1.23-1.50% Chrysotile
477 #20	Soil	NA	1.67-2.04% Chrysotile
477 #21	Soil	NA	1.67-2.04% Chrysotile
477 #22	Soil	NA	1.66-2.03% Chrysotile
477#27	Soil	NA	1.55-1.90% Chrysotile
<b>Weston Solutions, June 2019, Composite Soil Samples<sup>2</sup></b>			
NFPI-1-0	Soil	Brown Non-Fibrous Homogeneous	1.25% Actinolite
NFPI-12-0	Soil	Homogeneous	<0.25% Chrysotile
NFPI-14-0	Soil	Homogeneous	<0.25% Chrysotile

Notes:

1 = Weston Solutions. 2019. Draft Letter Report, Navajo Forest Product Industry (NFPI) Asbestos Sampling. June.

2 = Weston Solutions. 2019. Draft Letter Report, Navajo Forest Product Industry (NFPI) 2019 Site Assessment. July.

3 = Tiis Yá Tóh, Inc. 2018. Phase I Continued Site Assessment, NAV477 Navajo Forestry Products Industry. November.

NA = Not Available

**Navajo Forest Products Industries  
Action Memorandum**

**Attachment 2.d – Photos**

**Project Name:**  
NFPI Removal Assessment

**Site Location:**  
Navajo, New Mexico

**TDD No.:**  
0020/1302-T20-R9-19-05-0001

**Photo No.**  
**1**

**Date:**  
1/20/2018

**Direction Photo Taken:**

West

**Description:**

Drying Kiln Building at Former NFPI.



**Photo No.**  
**2**

**Date:**  
1/20/2018

**Direction Photo Taken:**

West

**Description:**

Bay 10 of the Drying Kiln Building.



**Project Name:**  
NFPI Removal Assessment

**Site Location:**  
Navajo, New Mexico

**TDD No.:**  
0020/1302-T20-R9-19-05-0001

**Photo No.**  
**3**

**Date:**  
6/18/2019

**Direction Photo Taken:**

South

**Description:**

Debris pile located on the concrete slab of the former Particle Building.



**Photo No.**  
**4**

**Date:**  
6/18/2019

**Direction Photo Taken:** South

**Description:**

Small debris pile on the northern portion of the former Particle Building.



**Project Name:**  
NFPI Removal Assessment

**Site Location:**  
Navajo, New Mexico

**TDD No.:**  
0020/1302-T20-R9-19-05-0001

**Photo No.**  
**5**

**Date:**  
6/18/2019

**Direction Photo Taken:** West

**Description:**

Sample NFPI-particlebldg-greendebri collected from the large debris pile in the former Particle Debris building.



**Photo No.**  
**6**

**Date:**  
6/18/2019

**Direction Photo Taken:** West

**Description:**

Sample H14-1, black coating on metal panel, located near former Power House.



**Project Name:**  
NFPI Removal Assessment

**Site Location:**  
Navajo, New Mexico

**TDD No.:**  
0020/1302-T20-R9-19-05-0001

**Photo No.**  
**7**

**Date:**  
6/18/2019

**Direction Photo Taken:**

South

**Description:**

Overview of former Power House Building.



**Photo No.**  
**8**

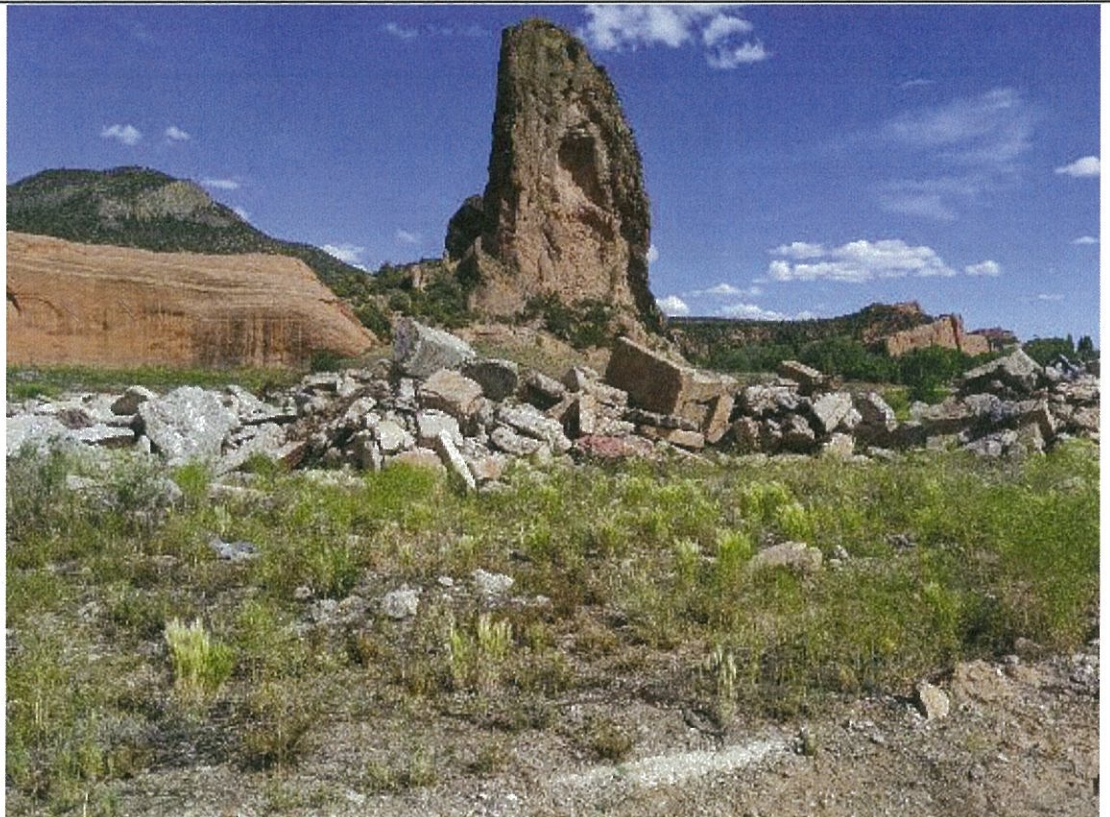
**Date:**  
6/18/2019

**Direction Photo Taken:**

East

**Description:**

Debris pile adjacent to the former Power House Building.



**Project Name:**  
NFPI Removal Assessment

**Site Location:**  
Navajo, New Mexico

**TDD No.:**  
0020/1302-T20-R9-19-05-0001

**Photo No.**  
**9**

**Date:**  
6/18/2019

**Direction Photo Taken:**

North

**Description:**

Trailer and large metal pipes on the former Warehouse Building. Sample H11-2 located on trailer.



**Photo No.**  
**10**

**Date:**  
6/18/2019

**Direction Photo Taken:**

Down

**Description:**

Transite panel and concrete from the roof of the Drying Kiln Building, sample H21-1.



**Project Name:**  
NFPI Removal Assessment

**Site Location:**  
Navajo, New Mexico

**TDD No.:**  
0020/1302-T20-R9-19-05-0001

**Photo No.**  
**11**

**Date:**  
1/20/2018

**Direction Photo Taken:** North

**Description:**

Roof of the Drying Kiln Building.



**Photo No.**  
**12**

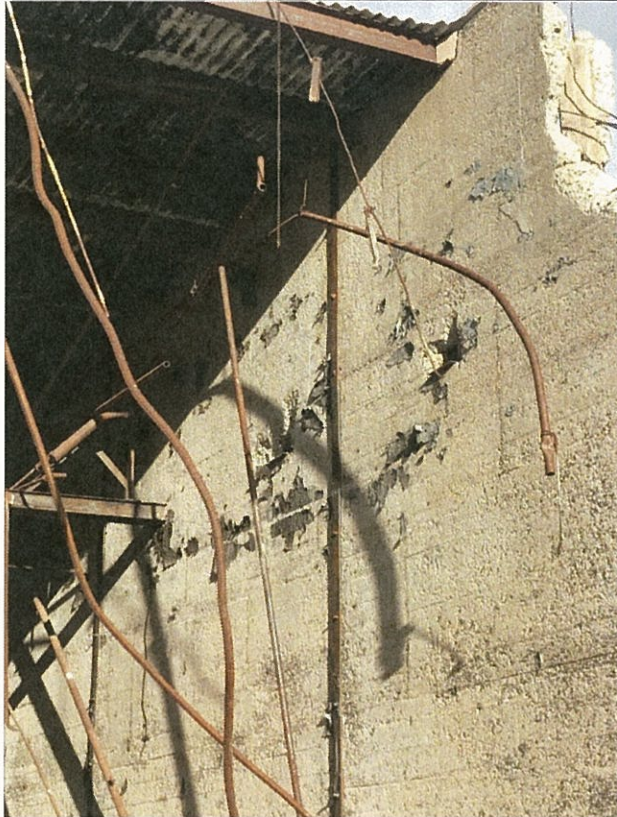
**Date:**  
1/20/2018

**Direction Photo Taken:** South

**Description:**

Roof of the Drying Kiln Building.



<b>Project Name:</b> NFPI Former Assessment		<b>Site Location:</b> Navajo, New Mexico	<b>TDD No.:</b> 0020/1302-T20-R9-19-05-0001
<b>Photo No.</b> <b>13</b>	<b>Date:</b> 6/18/2019		
<b>Direction Photo Taken:</b> Northwest			
<b>Description:</b>  View inside Bay 10 of the former Drying Kiln building with the black coating peeling off the walls (Sample H24-1 and H24-2).			

<b>Photo No.</b> <b>14</b>	<b>Date:</b> 7/19/2018	
<b>Direction Photo Taken:</b> West		
<b>Description:</b>  Large pieces of reinforced concrete adjacent to the Drying Kiln Building.		

# Navajo Forest Products Industries Action Memorandum

## Attachment 3 – ATSDR ToxFAQs

This fact sheet answers the most frequently asked health questions (FAQs) about asbestos. For more information, call the ATSDR Information Center at 1-888-422-8737. This fact sheet is one in a series of summaries about hazardous substances and their health effects. It's important you understand this information because this substance may harm you. The effects of exposure to any hazardous substance depend on the dose, the duration, how you are exposed, individual susceptibility and personal habits, and whether other chemicals are present.

**HIGHLIGHTS:** Exposure to asbestos usually occurs by breathing contaminated air in workplaces that make or use asbestos. Asbestos is also found in the air of buildings that are being torn down or renovated. Asbestos exposure can cause serious lung problems and cancer. This substance has been found at 83 of the 1,585 National Priorities List sites identified by the Environmental Protection Agency (EPA).

### What is asbestos?

Asbestos is the name given to a group of six different fibrous minerals (amosite, chrysotile, crocidolite, and the fibrous varieties of tremolite, actinolite, and anthophyllite) that occur naturally in the environment. Asbestos minerals have separable long fibers that are strong and flexible enough to be spun and woven and are heat resistant. Because of these characteristics, asbestos has been used for a wide range of manufactured goods, mostly in building materials (roofing shingles, ceiling and floor tiles, paper products, and asbestos cement products), friction products (automobile clutch, brake, and transmission parts), heat-resistant fabrics, packaging, gaskets, and coatings. Some vermiculite or talc products may contain asbestos.

### What happens to asbestos when it enters the environment?

Asbestos fibers can enter the air or water from the breakdown of natural deposits and manufactured asbestos products. Asbestos fibers do not evaporate into air or dissolve in water. Small diameter fibers and particles may remain suspended in the air for a long time and be carried long distances by wind or water before settling down. Larger diameter fibers and particles tend to settle more quickly.

Asbestos fibers are not able to move through soil. Asbestos fibers are generally not broken down to other compounds and will remain virtually unchanged over long periods.

### How might I be exposed to asbestos?

We are all exposed to low levels of asbestos in the air we breathe. These levels range from 0.00001 to 0.0001 fibers per milliliter of air and generally are highest in cities and industrial areas.

People working in industries that make or use asbestos products or who are involved in asbestos mining may be exposed to high levels of asbestos. People living near these industries may also be exposed to high levels of asbestos in air.

Asbestos fibers may be released into the air by the disturbance of asbestos-containing material during product use, demolition work, building or home maintenance, repair, and remodeling. In general, exposure may occur only when the asbestos-containing material is disturbed in some way to release particles and fibers into the air.

Drinking water may contain asbestos from natural sources or from asbestos-containing cement pipes.

### How can asbestos affect my health?

Asbestos mainly affects the lungs and the membrane that surrounds the lungs. Breathing high levels of asbestos fibers for a long time may result in scar-like tissue in the lungs and in the pleural membrane (lining) that surrounds the lung. This disease is called asbestosis and is usually found in workers exposed to asbestos, but not in the general public. People with asbestosis have difficulty breathing, often a cough, and in severe cases heart enlargement. Asbestosis is a serious disease and can eventually lead to disability and death.

ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>

Breathing lower levels of asbestos may result in changes called plaques in the pleural membranes. Pleural plaques can occur in workers and sometimes in people living in areas with high environmental levels of asbestos. Effects on breathing from pleural plaques alone are not usually serious, but higher exposure can lead to a thickening of the pleural membrane that may restrict breathing.

### How likely is asbestos to cause cancer?

The Department of Health and Human Services (DHHS), the World Health Organization (WHO), and the EPA have determined that asbestos is a human carcinogen.

It is known that breathing asbestos can increase the risk of cancer in people. There are two types of cancer caused by exposure to asbestos: lung cancer and mesothelioma. Mesothelioma is a cancer of the thin lining surrounding the lung (pleural membrane) or abdominal cavity (the peritoneum). Cancer from asbestos does not develop immediately, but shows up after a number of years. Studies of workers also suggest that breathing asbestos can increase chances of getting cancer in other parts of the body (stomach, intestines, esophagus, pancreas, and kidneys), but this is less certain. Early identification and treatment of any cancer can increase an individual's quality of life and survival.

Cigarette smoke and asbestos together significantly increase your chances of getting lung cancer. Therefore, if you have been exposed to asbestos you should stop smoking. This may be the most important action that you can take to improve your health and decrease your risk of cancer.

### How can asbestos affect children?

We do not know if exposure to asbestos will result in birth defects or other developmental effects in people. Birth defects have not been observed in animals exposed to asbestos.

It is likely that health effects seen in children exposed to high levels of asbestos will be similar to the effects seen in adults.

### How can families reduce the risk of exposure to asbestos?

Materials containing asbestos that are not disturbed or deteriorated do not, in general, pose a health risk and can be left alone. If you

suspect that you may be exposed to asbestos in your home, contact your state or local health department or the regional offices of EPA to find out how to test your home and how to locate a company that is trained to remove or contain the fibers.

### Is there a medical test to show whether I've been exposed to asbestos?

Low levels of asbestos fibers can be measured in urine, feces, mucus, or lung washings of the general public. Higher than average levels of asbestos fibers in tissue can confirm exposure but not determine whether you will experience any health effects.

A thorough history, physical exam, and diagnostic tests are needed to evaluate asbestos-related disease. Chest x-rays are the best screening tool to identify lung changes resulting from asbestos exposure. Lung function tests and CAT scans also assist in the diagnosis of asbestos-related disease.

### Has the federal government made recommendations to protect human health?

In 1989, EPA banned all new uses of asbestos; uses established before this date are still allowed. EPA established regulations that require school systems to inspect for damaged asbestos and to eliminate or reduce the exposure by removing the asbestos or by covering it up. EPA regulates the release of asbestos from factories and during building demolition or renovation to prevent asbestos from getting into the environment.

EPA has proposed a concentration limit of 7 million fibers per liter of drinking water for long fibers (lengths greater than or equal to 5  $\mu\text{m}$ ). The Occupational Safety and Health Administration has set limits of 100,000 fibers with lengths greater than or equal to 5  $\mu\text{m}$  per cubic meter of workplace air for 8-hour shifts and 40-hour work weeks.

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 2001. Toxicological Profile for Asbestos. Update. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.

**Where can I get more information?** For more information, contact the Agency for Toxic Substances and Disease Registry, Division of Toxicology, 1600 Clifton Road NE, Mailstop F-32, Atlanta, GA 30333. Phone: 1-888-422-8737, FAX: 770-488-4178. ToxFAQs™ Internet address is <http://www.atsdr.cdc.gov/toxfaq.html>. ATSDR can tell you where to find occupational and environmental health clinics. Their specialists can recognize, evaluate, and treat illnesses resulting from exposure to hazardous substances. You can also contact your community or state health or environmental quality department if you have any more questions or concerns.

