# PROTECTING TRIBAL CHILDREN & COMMUNITY MEMBERS FROM ASBESTOS-IN-SCHOOL HAZARDS

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*EPA Region IX, Communities & Ecosystems Division, Toxics Office, Asbestos-in-Schools Program.*

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# BASIC ASBESTOS INFORMATION

- "*Asbestos:*" several naturally-occurring fibrous minerals having high-tensile strength, ability to be woven, & resistance to heat/most chemicals.
- Due to these properties, asbestos fibers are used in wide range of manufactured goods both US & globally: (roofing shingles, ceiling/floor tiles, paper and cement products, textiles, coatings, and friction products such as automobile clutch/brake/ transmission parts).

# HEALTH EFFECTS OF EXPOSURE TO ASBESTOS

- Exposure to (*airborne*) asbestos increases a person's risk of developing lung disease, a risk aggravated by smoking. Generally, greater exposure to (airborne) asbestos increases a person's chance of developing adverse health effects including lung cancer;
- Disease symptoms may take several years to develop after exposure. If concerned about possible asbestos exposure, consult a medical specialist for lung diseases (pulmonologist).

# HEALTH EFFECTS OF ASBESTOS

- Exposure to (*airborne*) friable asbestos may result in adverse health effects because persons breathing the air may inhale asbestos fibers. Continued exposure increases amount of fibers remaining in lungs. Fibers embedded in lung tissue over time may cause serious lung diseases including asbestosis, lung cancer or mesothelioma. Smoking increases risk of developing illness from asbestos exposure.
- Three primary health effects from exposure to (*airborne*) asbestos:

# HEALTH EFFECTS OF ASBESTOS

- *(1) Asbestosis*: a serious, progressive, long-term non-cancer disease of lungs. Caused by inhaling asbestos fibers that irritate lung tissues & cause tissues to scar. Scarring makes it harder for oxygen to get into the blood. Symptoms of asbestosis: shortness of breath & dry, crackling sound in lungs while inhaling. No effective treatment for asbestosis;
- (2) *Mesothelioma*: a rare form of cancer found in thin lining (membrane) of lung, chest, abdomen, and heart; almost all cases linked to exposure to asbestos. Disease may not show up until many years after (*airborne*) asbestos exposure;

# HEALTH EFFECTS OF ASBESTOS

- *(3) Lung Cancer*: Lung cancer causes largest number of deaths related to (*airborne*) asbestos exposure. People working in asbestos mining/milling/ manufacturing (and persons using asbestos & its products) are more likely to develop lung cancer than general population. Most common symptoms of lung cancer: coughing & change in breathing. Other symptoms: shortness of breath, persistent chest pains, hoarseness & anemia;
- National Cancer Institute factsheet: "*Asbestos Exposure & Cancer Risk.*" http://www.cancer.gov/cancertopics/factsheet/Risk/asbestos

# PROPERTIES OF ASBESTOS & COMMERCIAL USES

- Asbestos fibers: incredibly strong & heat-resistant properties. Many products in use today contain asbestos: complete list of past uses of asbestos.
- Most are materials used in heat/acoustic insulation, fire proofing & roofing/ flooring. In 1989, EPA HQ identified *asbestos product categories*. Many still in use at K-12 schools subject to federal AHERA requirements.

# ASBESTOS PRODUCT CATEGORIES IDENTIFIED BY EPA (1989)

- asbestos-cement corrugated sheet;
- asbestos-cement flat sheet;
- asbestos-cement pipe;
- asbestos-cement shingle;
- roof coatings;
- flooring felt;
- pipeline wrap;
- roofing felt;
- asbestos clothing;
- non-roof coatings;

# ASBESTOS PRODUCT CATEGORIES IDENTIFIED BY EPA (1989)

- vinyl/asbestos floor tile;
- automatic transmission components;
- clutch facings;
- disc brake pads;
- drum brake linings;
- brake blocks;
- commercial & industrial asbestos friction products;
- sheet & beater-add gaskets (except specialty industrial);
- commercial, corrugated & specialty paper;
- millboard & rollboard.

# ASBESTOS: REGULATORY CLASSIFICATION

- *Friable Asbestos*: When dry, can be crumbled, pulverized or reduced to powder by hand pressure;
- *Category I Nonfriable*: Includes materials such as vinyl asbestos floor tiles, gaskets & asphalt roofing shingles. In good condition, materials can be left in buildings during demolition activities;
- *Category II Nonfriable*: Includes all nonfriable materials other than Category I materials, such as "*transite*" siding & water pipe. Category II materials must be removed prior to demolition *if* likely to become friable.

# SCHOOL BUILDINGS SUBJECT TO ASBESTOS-IN-SCHOOLS REQUIREMENT

- EPA's asbestos-in-schools requirement (AHERA) applies to public & private *nonprofit* elementary & secondary schools (grades K-12). AHERA requirements do *not* apply to "for profit" K-12 schools;
- Any school building owned/leased by LEA is subject to AHERA. "S*chool building*" generally includes structures suitable for classroom use (e.g., portable units), library, laboratory, eating/kitchen facility, gymnasium, administrative office, student dormitory & storage /maintenance/utility facilities.

# SCHOOL BUILDINGS SUBJECT TO ASBESTOS-IN-SCHOOLS REQUIREMENT

- Buildings constructed after 10/12/1988 & without use of asbestos-containing building materials are excluded from *some* AHERA requirements;
- LEA still required, however, to maintain asbestos management plan, appoint designated person & provide annual notifications.

# ASBESTOS IN SCHOOL ENVIRONMENT (K-12 SCHOOLS)

- *Asbestos*: naturally-occurring mineral fiber, once widely used in building materials for thermal insulating properties & fire resistance.
- Although removal of asbestos from school buildings is an option, many schools and local education agencies choose to manage asbestos-containing materials in place.
- Intact, undisturbed asbestos-containing materials generally do not pose a health risk.

# ASBESTOS IN SCHOOL ENVIRONMENT (K-12 SCHOOLS)

- Materials may become hazardous & pose risk if damaged or disturbed and/or deteriorate over time, thus potentially releasing asbestos fibers into building air.
- A number of building materials still in use contain asbestos. Asbestos remains in use as an acoustic insulator, and in thermal insulation, fire proofing, roofing, flooring & other materials.
- Although asbestos is hazardous *if* inhaled, removal of asbestos from schools is often not the best course of action, potentially creating a danger where none previously existed.

# EPA ROLE IN PROTECTING CHILDREN FROM ASBESTOS HAZARDS

- EPA's asbestos program for schools, mandated by the Asbestos Hazard Emergency Response Act (AHERA), and its regulations for schools and other buildings is founded on the principle of "in-place" management of asbestos-containing material (ACM). This approach is designed to prevent asbestos exposure by teaching people to recognize asbestos-containing materials and actively monitor and, where necessary, manage them in place.
- Removal of ACM's is not usually necessary unless material is severely damaged and/or will be disturbed by building demolition, retrofit or renovation project.
- EPA requires an *in-place*, pro-active asbestos management program for all local education agencies (LEA) to ensure that asbestos-containing building materials (ACBM) remain in good condition, undisturbed by students, faculty & staff.

# ASBESTOS HAZARD EMERGENCY RESPONSE ACT (AHERA)

- Asbestos Hazard Emergency Response Act (AHERA), part of Toxic Substances Control Act (TSCA), became federal law in 1986.
- AHERA requires local education agencies to inspect schools for asbestos-containing material & prepare management plans to prevent or reduce asbestos hazards.
- Public school districts and non-profit private schools (collectively called local education agencies) are subject to AHERA's requirements. This includes charter schools and schools affiliated with religious institutions.
- EPA provides local education agencies and parents and teachers with information about the AHERA asbestos-in-schools requirements through mailings and other outreach.

# EPA'S ASBESTOS-IN-SCHOOLS PROGRAM

- 1986: Asbestos Hazard Emergency Response Act (AHERA) became federal law, requiring public & private non-profit primary & secondary schools to inspect their buildings for asbestos-containing building materials.
- 1990: Asbestos School Hazard Abatement Reauthorization Act (ASHARA) required accreditation of personnel working on asbestos activities in schools, and public & commercial buildings.

# COMPLIANCE WITH AHERA BY SCHOOLS K-12

- EPA's AHERA regulations are in Code of Federal Regulations, Chapter 40, Part 763, Subpart E. AHERA rules require local education agencies to take actions to:
- Perform original inspection and re-inspection every three years of asbestos-containing material;
- Develop, maintain, and update an asbestos management plan and keep a copy at the school;
- Provide yearly notification to parent, teacher, and employee organizations regarding the availability of the school's asbestos management plan and any asbestos abatement actions taken or planned in the school;

# COMPLIANCE WITH AHERA REQUIREMENTS BY SCHOOLS K-12 (CONTINUED)

- Designate contact person to ensure that responsibilities of local education agency are properly implemented;
- Perform periodic surveillance of known or suspected asbestos-containing building materials;
- Ensure that properly-accredited professionals perform inspections and response actions and prepare management plans; and
- Provide custodial staff with asbestos-awareness training.

# RESPONSIBILITY OF SCHOOL ADMINISTRATORS TO PROTECT STUDENTS FROM ASBESTOS HAZARDS

- In addition to the requirements pursuant to AHERA, local education agencies need also to comply with the Asbestos National Emissions Standards for Hazardous Air Pollutants (NESHAP), found at 40 CFR Part 61, Subpart M. It requires that owners or operators of facilities notify the appropriate authority (usually the state air pollution control agency) before demolishing or renovating facilities. If minimum amounts of regulated asbestos will be removed or disturbed, the owner/operator must adequately wet and carefully remove the asbestos components, keeping them wet until collected for disposal, and then disposing of the asbestos waste in accordance with the regulations.

# EPA ASBESTOS-IN-SCHOOLS ENFORCEMENT ALERT & THE ABC'S OF ASBESTOS IN SCHOOLS

- **Asbestos in Schools Enforcement Alert** - EPA's Office of Enforcement and Compliance Assurance issued an AHERA enforcement alert on exposure to asbestos hazards in schools.
- *100 Commonly Asked Questions About AHERA Asbestos-in-Schools Rule*: http://www.epa.gov/reg3wcmd/pdf/100_Commonly_Asked_Questions.pdf
- The ABC's of Asbestos in Schools (PDF) (20 pp, 1MB)

# REPORTING SUSPECTED VIOLATIONS OF EPA'S ASBESTOS-IN-SCHOOLS REQUIREMENTS

- Report violation to appropriate EPA regional office;
- Protecting environment & health from hazards of asbestos-in-schools is a joint responsibility. Reporting suspected environmental violations: www.epa.gov/tips (or)
- Contact Ron Tsuchiya, EPA Region IX Toxics Office, to discuss reporting suspected violations of EPA's asbestos-in-schools requirements.

# IMPORTANT AHERA PUBLICATIONS

- **Model AHERA Asbestos Management Plan for Local Education Agencies** [39 pp]. AHERA rule effective 12/14/1987; applies to all *non-profit* elementary & secondary schools nationwide, public and private (grades K to 12) including federal facility schools (i.e., those owned and/or operated by DOI-BIA). AHERA does *not* apply to "for profit" K-12 schools;
- *Local Education Agencies (LEAs)*: responsible for ensuring compliance with AHERA & required to develop/ maintain up-to-date Asbestos Management Plan (AMP), conduct training, inspections, & sampling related to asbestos, manage asbestos properly and provide yearly notification to parents, teachers and employee organizations about the AMP and asbestos-related activities.

# IMPORTANT AHERA PUBLICATIONS

- **AHERA Asbestos Management Plan Self-Audit Checklist for Designated Persons** [150 KB, 18 pages]
  A companion guidance document to help the Designated Person determine if school has up-to-date Asbestos Management Plan (AMP) that is fully compliant.
- EPA recommends that checklist be reviewed to identify potential deficiencies in a school's AMP.

# ASBESTOS COMPLIANCE INFORMATION

- OSHA rules and regulations US Occupational Health & Safety Administration.
- EPA National Emission Standard for Asbestos (program under US Clean Air Act; EPA Region IX contact: Robert (Bob) Trotter, Air Division, Air Enforcement Office, phone 415-972-3989).
- US government has developed several laws & regulations to govern use of asbestos & ensure protection of human health from asbestos hazards.

# ASBESTOS INFORMATION AT EPA HQ WEBSITE

- EPA's National Asbestos Web Site
- Glossary
- Tools, documents, regulations, and related links
- Information for Local Education Agencies
- Information for Contractors
- Asbestos laws and regulations

# EPA REGION IX ASBESTOS CONTACTS

- TSCA Asbestos-in-Schools Program Coordinator: Ron Tsuchiya, Communities & Ecosystems Division, Toxics Office, phone 415-947-4168; email: tsuchiya.ron@epa.gov
- Clean Air Act Asbestos NESHAP Program Coordinator: Robert (Bob) Trotter, Air Division, Air Enforcement Office, phone 415-972-3989; email: trotter.robert@epa.gov
- *Thank you! Please share this information widely; we hope it assists your tribe, tribal communities & tribal partners to protect health of children & residents in Indian Country*.