

MANAGING ASTHMA IN NEW MEXICO SCHOOLS

XI. THE CUSTODIAL and MAINTENANCE STAFF

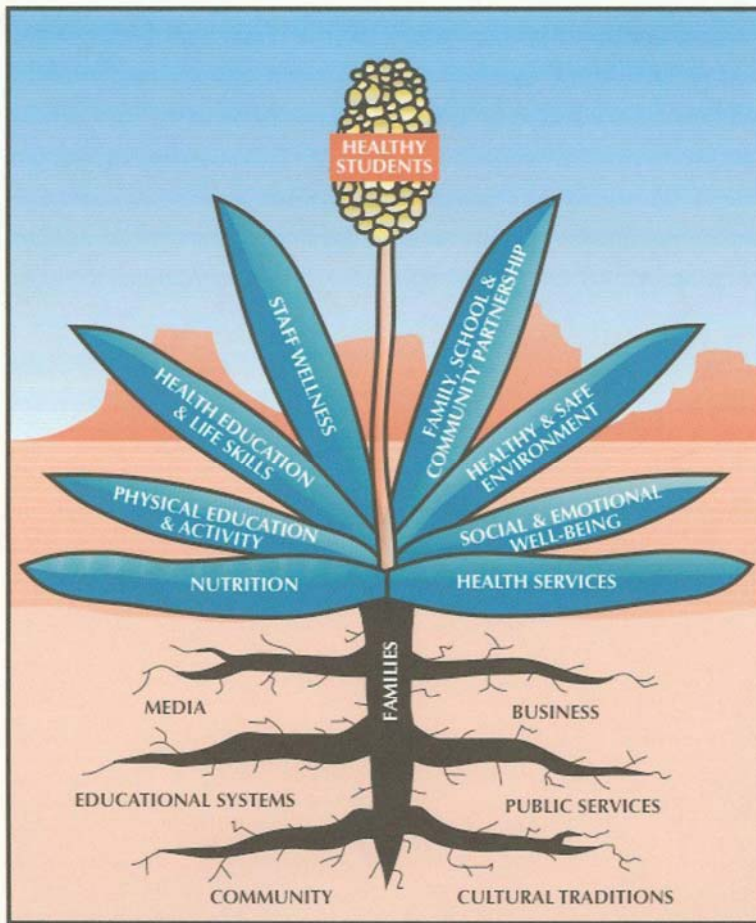


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Custodial Staff Responsibilities

Important Points

A clean school is essential in maintaining a healthy school environment.

Cleaning procedures need to be followed carefully and evaluated frequently.

Custodial staff members have an important role in recognizing potential asthma triggers in the school setting.

Air quality problems should be reported promptly.

Remember to use the school nurse as a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

The custodial staff has a very important role in maintaining good indoor air quality in the school environment. A clean school is essential in promoting the health of all members of the school community. The methods used to ensure cleanliness can impact air quality and must be carefully evaluated. All custodians need to be alert to situations that contribute to air pollution and team with the school administration to see that these are managed correctly. A member of the custodial staff should serve on the school's indoor air quality (IAQ) management team to ensure that the highest standards possible are met.

The custodial staff must never underestimate the importance of their role in ensuring a healthy environment for students with asthma. Like all other staff members they need to know how to help a student experiencing an asthma episode. Additionally, they are in an ideal position to help reduce the number of potential asthma triggers in the school environment. Careful attention to cleaning procedures, schedules, and products is essential. Being alert and reporting observations to the appropriate source is an important responsibility of every custodian. There are a wide variety of resources available to provide further information on this topic.

Maintenance Staff Responsibilities

Air quality problems should be reported promptly.

Remember to use the school nurse as a resource to learn more about asthma and its management, especially the school's asthma emergency plan.

Like the custodial staff, the maintenance staff has a very important role in maintaining good air quality in the school environment. Ideally, all major maintenance work should be scheduled for summer or other school breaks. Realistically, this is often difficult to accomplish. Before projects are started, consideration needs to be given to potential air quality issues. Special attention should be given to painting, carpeting, and roofing projects that can result in strong fumes and/or outgases. The EPA renovation and repair checklist provides helpful guidelines for planning, implementing, and evaluating maintenance activities. While the maintenance staff members may not be assigned to a specific school, they need to remember that they are definitely an important part of the school community.

Ways the Custodial Staff can Work to Promote an Asthma Friendly School Environment

Clean all floor surfaces thoroughly

Carpets need to be vacuumed several times each week with a high efficiency particulate arresting (HEPA) vacuum to remove the dirt, dust mites, and mold that act as triggers

Carpets should be steamed cleaned annually and dried thoroughly to avoid mold

New carpets must be installed allowing adequate time for airing before classes start

Tile floors need to be mopped

Hardwood floors need to be dusted or wet mopped

Pay attention to horizontal surfaces

Bookshelves should be dusted as they trap dust easily

Windowsills collect dust and pollen and need to be damp wiped

Woodwork should be damp cloth dusted weekly

Students' desktops need to be cleaned regularly, ideally by the students themselves

Remove trash promptly

Classroom trash should be removed daily

Special attention should be given to any food products discarded in classrooms

School grounds should be kept trash free

Manage pests appropriately

Immediately report indications of pests

Encourage the use of an integrated pest management system (IPM) that decreases pest attractions and thus eliminates the use of pesticides

Inform staff, students, and parents if insecticides are used

Inspect heating, ventilation, and cooling systems (HVAC)

Conduct routine inspections and maintain all systems

Establish routines for changing any filters

Clean fans and grates on a regular schedule

Immediately report any signs of mold or mildew

Check evaporative coolers for signs of mold and residues

Evaluate cleaning supplies

Avoid cleaning products that add chemicals to classroom air

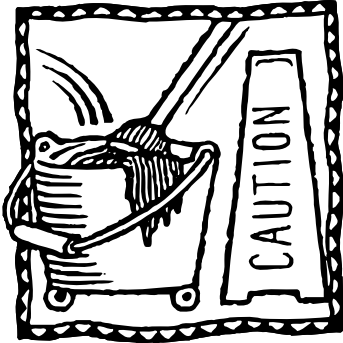
Use natural cleaning agents such as vinegar, baking soda, and Clorox bleach whenever possible - oils can be a potential asthma trigger.

Report any complaints of irritants to the administration immediately

Schedule cleaning when students are not in the classrooms when possible

Store all cleaning supplies in an area with limited access

Building and Grounds Maintenance Checklist



Name: _____
 School: _____
 Room or Area: _____ Date Completed: _____
 Signature: _____

Instructions

- Read the *IAQ Backgrounder* and the Background Information for this checklist.
- Keep the Background Information and make a copy of the checklist for future reference.
- Complete the Checklist.
 - Check the “yes,” “no,” or “not applicable” box beside each item. (A “no” response requires further attention.)
 - Make comments in the “Notes” section as necessary.
- Return the checklist portion of this document to the IAQ Coordinator.

1. BUILDING MAINTENANCE SUPPLIES

- | | Yes | No | N/A |
|--|--------------------------|--------------------------|--------------------------|
| 1a. Developed appropriate procedures and stocked supplies for spill control..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1b. Reviewed supply labels | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1c. Ensured that air from chemical and trash storage areas vents to the outdoors | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1d. Stored chemical products and supplies in sealed, clearly labeled containers..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1e. Researched and selected the safest products available | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1f. Ensured that supplies are being used according to manufacturers’ instructions..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1g. Ensured that chemicals, chemical-containing wastes, and containers are disposed of according to manufacturers’ instructions..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1h. Substituted less- or non-hazardous materials (where possible) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1i. Scheduled work involving odorous or hazardous chemicals for periods when the school is unoccupied | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 1j. Ventilated affected areas during and after the use of odorous or hazardous chemicals | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

2. GROUNDS MAINTENANCE SUPPLIES

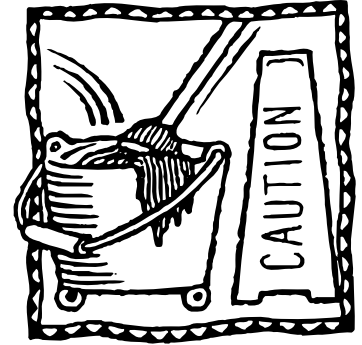
- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 2a. Stored grounds maintenance supplies in appropriate area(s)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2b. Ensured that supplies are used and stored according to manufacturers’ instructions..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2c. Established and followed procedures to minimize exposure to fumes from supplies | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2d. Reviewed and followed manufacturers’ guidelines for maintenance | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2e. Replaced portable gas cans with low-emission cans..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2f. Stored chemical products and supplies in sealed, clearly-labeled containers..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2g. Ensured that chemicals, chemical-containing wastes, and containers are disposed of according to manufacturers’ instructions..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

3. DUST CONTROL

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 3a. Installed and maintained barrier mats for entrances | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3b. Used high efficiency vacuum bags | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3c. Used proper dusting techniques | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3d. Wrapped feather dusters with a dust cloth..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3e. Cleaned air return grilles and air supply vents..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

4. FLOOR CLEANING

- | | Yes | No | N/A |
|---|--------------------------|--------------------------|--------------------------|
| 4a. Established and followed schedule for vacuuming and mopping floors..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4b. Cleaned spills on floors promptly (as necessary)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4c. Performed restorative maintenance (as necessary) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



5. DRAIN TRAPS

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 5a. Poured water down floor drains once per week (about 1 quart of water) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5b. Ran water in sinks at least once per week (about 2 cups of water)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5c. Flushed toilets once each week (if not used regularly) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

6. MOISTURE, LEAKS, AND SPILLS

- | | | | |
|--|--------------------------|--------------------------|--------------------------|
| 6a. Checked for moldy odors..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6b. Inspected ceiling tiles, floors, and walls for leaks or discoloration (may indicate periodic leaks)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6c. Checked areas where moisture is commonly generated (e.g., kitchens, locker rooms, and bathrooms) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6d. Checked that windows, windowsills, and window frames are free of condensate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6e. Checked that indoor surfaces of exterior walls and cold water pipes are free of condensate | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6f. Ensured the following areas are free from signs of leaks and water damage: | | | |
| Indoor areas near known roof or wall leaks..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Walls around leaky or broken windows..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Floors and ceilings under plumbing..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Duct interiors near humidifiers, cooling coils, and outdoor air intakes | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

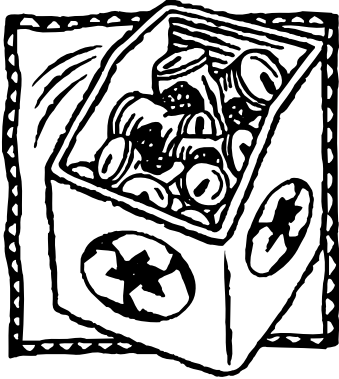
7. COMBUSTION APPLIANCES

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 7a. Checked for odors from combustion appliances..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7b. Checked appliances for backdrafting (using chemical smoke)..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7c. Inspected exhaust components for leaks, disconnections, or deterioration..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7d. Inspected flue components for corrosion and soot..... | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

8. PEST CONTROL

- | | | | |
|---|--------------------------|--------------------------|--------------------------|
| 8a. Completed the <i>Integrated Pest Management Checklist</i> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
|---|--------------------------|--------------------------|--------------------------|

NOTES



Waste Management Checklist

Name: _____
 School: _____
 Room or Area: _____ Date Completed: _____
 Signature: _____

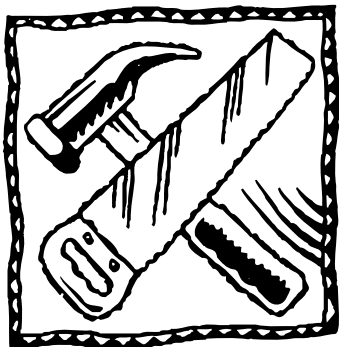
Instructions

1. Read the *IAQ Background* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
 - Check the “yes,” “no,” or “not applicable” box beside each item. (A “no” response requires further attention.)
 - Make comments in the “Notes” section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. WASTE MANAGEMENT

	Yes	No	N/A
1a. Ensured that waste containers are appropriate for use (for example, food waste containers should have lids).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1b. Ensured that waste containers are lined.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1c. Ensured that waste from art, science, vocational classes, etc., are handled separately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1d. Labeled recycling bins clearly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1e. Ensured number of bins and dumpsters is adequate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1f. Ensured appropriate location of dumpsters (i.e., away from air intakes, doors, and operable windows in relation to prevailing winds)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1g. Ensured waste containers are emptied regularly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1h. Ensured appropriate waste removal schedule.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1i. Ensured waste is stored in a well-ventilated room	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1j. Ensured any exhaust fans in the room are operating properly.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1k. Checked waste storage areas for odors, contaminants, or signs of vermin.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

NOTES



Renovation & Repair Checklist

Name: _____
 School: _____
 Room or Area: _____ Date Completed: _____
 Signature: _____

Instructions

1. Read the *IAQ Backgrounder* and the Background Information for this checklist.
2. Keep the Background Information and make a copy of the checklist for future reference.
3. Complete the Checklist.
 - Check the “yes,” “no,” or “not applicable” box beside each item. (A “no” response requires further attention.)
 - Make comments in the “Notes” section as necessary.
4. Return the checklist portion of this document to the IAQ Coordinator.

1. GENERAL ACTIVITIES

PRE-RENOVATION

Yes No N/A

- 1a. Notified staff, students, and parents of impending renovations and repairs
- 1b. Consulted school’s asbestos (AHERA) survey, if available
- 1c. Tested original paint for lead before removing it
- 1d. Consulted an asbestos professional before starting projects that may disturb asbestos
- 1e. Planned isolation strategy (from pollutants generated during renovations and repairs) for:
- Students and staff
 - Non-work areas of building
 - Ventilation system
- 1f. Arranged for increased housekeeping during renovations and repairs
- 1g. Selected products and materials with minimal off-gassing
- 1h. Included IAQ-related specifications in construction contracts
- 1i. Evaluated work area for signs of mold before starting renovations or repairs
- 1j. Scheduled pollutant-producing activities during unoccupied periods

RENOVATION

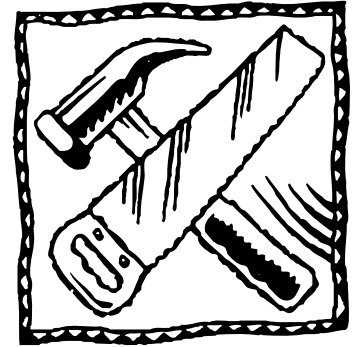
- 1k. Updated school occupants and parents on progress of longer projects
- 1l. Avoided exposure to mold and bacteria (for example, with protective clothing or close-out procedures)
- 1m. Determined that housekeeping activities are sufficient to control dirt and dust
- 1n. Verified that work met contract specifications

CLOSE-OUT

- 1o. Allowed time for off-gassing before space is occupied
- 1p. Cleaned surfaces with wet-wiping and vacuuming (high efficiency vacuuming for fine or potentially toxic dusts such as lead, asbestos, or mold)
- 1q. Cleaned building system components as needed
- 1r. Changed ventilation system filters
- 1s. Balanced and tested HVAC system (if the HVAC systems or rooms served by it were modified)
- 1t. Followed EPA National Emission Standards for Hazardous Air Pollutants rules for disposal of materials that contained asbestos

2. PAINTING

PRE-RENOVATION	Yes	No	N/A
2a. Confirmed that the painted surface is lead-free	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2b. Selected a low-VOC emitting paint that is free of lead, mercury, and formaldehyde	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2c. Scheduled painting during unoccupied periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RENOVATION			
2d. Minimized occupant exposure to odors and contaminants	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2e. Used exhaust and supply ventilation to sweep fumes out of building	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2f. Blocked ventilation return openings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2g. Used proper storage and disposal practices for paints, solvents, and supplies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLOSE-OUT			
2h. Allowed paint odors to dissipate before occupants returned.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2i. Used supply and exhaust fans to sweep fumes out of the building.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2j. Used appropriate storage and disposal practices for paints, solvents, and clean-up materials	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2k. Disposed of old paints containing lead or mercury appropriately	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



3. FLOORING

PRE-RENOVATION	Yes	No	N/A
3a. Ensured that flooring is free of asbestos fibers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3b. Selected low-emitting adhesives and flooring materials.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3c. Obtained information about product constituents and emissions.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3d. Avoided installing carpet near water sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3e. Scheduled installation during unoccupied periods.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3f. Aired out (off-gassed) new products before installation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RENOVATION			
3g. Followed manufacturers' recommendations for ventilating the work area.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3h. Avoided recirculating air from the installation area	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3i. Sealed return air grilles, opened doorways, and used exhaust fans to remove airborne contaminants.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3j. Vacuumed old carpet (before removal)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3k. Vacuumed subfloor surfaces (after carpet removal)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3l. Sealed joints of hard surfaces and/or entire surface of porous flooring installed near water sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CLOSE-OUT			
3m. Vacuumed new flooring after installation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3n. Followed manufacturers' recommendations for ventilating the work area space (typical recommendation: allow maximum outdoor air into work area for 72 hours after installation).....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. ROOFING

PRE-RENOVATION	Yes	No	N/A
4a. Scheduled pollutant-producing activities during unoccupied periods	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RENOVATION			
4b. Placed "hot pots" of tar away from outdoor air intakes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4c. Modified ventilation to avoid introducing odors and contaminants into building (for example, closed rooftop ventilation units in vicinity of work area and instructed staff and students to keep doors and windows closed)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Emergency Care Algorithm

ASTHMA/WHEEZING OR DIFFICULTY BREATHING

Students with a history of breathing difficulties, including asthma/wheezing should be known to all school staff. An emergency care plan should be developed. **Asthma** is a disease that occurs when small air passages constrict making breathing difficult. Some triggers for asthma include viral infections, tobacco smoke, exercise, perfumes, strong odors, aerosol sprays, cold air, and allergies

A student with asthma/wheezing may have breathing difficulties which include:

- Rapid breathing
- Tightness in chest
- Excessive coughing
- Taking a breathe in between words when speaking
- Wheezing (high-pitched) sound during breathing out
- Increased use of stomach and chest muscles during breathing
- Flaring (widening) of nostrils
- Blueness of lips, tongue or nail beds

If available, refer to student's health/emergency care plan. (Remember: **Peak Flow Meter**, if available.)


Does student have parent/guardian-approved medication?

Administer medication as directed.

Encourage the student to sit quietly, breathe slowly and deeply through the nose and out through the mouth.

• Are the lips, tongue or nail beds turning blue?
• Are the symptoms not improving or getting worse?
• Did breathing difficulty develop rapidly?

Contact responsible school authority & parent/legal guardian.

 **CALL EMERGENCY MEDICAL SERVICE.**