

APPENDIX J – REVISED

Procedures for Removing Pipe Insulation Using a Portable Dust Containment Unit

Containment Unit

1. The containment unit shall capture and contain airborne particulate and mold spores disturbed during the removal of pipe installation.
2. The unit shall be open only on the upper side during work.
3. A negative air machine shall be connected to the unit such that air is pulled in from the upper opening and discharged away from the area of work after passing through a MERV 8 filter. The face velocity at the opening shall be at least 60 fpm as measured by ANSI/AIHA ASH RAE 110-1985, 1995. The area inside the machine where work is occurring shall be under a negative pressure relative to the adjacent space.

General Procedures

1. The work will be performed by personnel trained in cleanup procedures, personal protection, and potential health hazards. The workers will wear, at minimum, (N-95) dust masks, protective clothing covering head and shoes, safety glasses, and gloves.
2. Turn off all fans and HVAC equipment in room or area in proximity to work and all exterior doors in proximity shall remain closed. Keep doors to adjacent areas closed and verify there are no school personnel, students, or the general public in rooms in or adjacent to the work areas.

Hallway and Non-Mechanical Equipment Room

1. MCPS personnel will move all furniture six feet (minimum) away from piping work area.
2. Any furniture, fixtures, equipment, etc. that are within four feet (horizontally) of piping shall be draped or covered with 6 mil plastic sheeting. For instance, bulletin boards within 4 feet horizontally and Promethean projectors under the piping shall be covered with poly.
3. Place 6 mil plastic sheets on the floor beneath area of work and extend four feet horizontally from the piping in all directions.
4. With containment unit on, position unit beneath piping (ceiling opening shall not extend past opening of the containment unit and the containment unit opening shall be within 2" of the ceiling).

5. Slide ceiling tiles to the side away from the piping.
6. Remove insulation minimizing dust generation.
7. All debris and materials located on ceiling tiles within four feet horizontally of piping shall be discarded.
8. All debris and material that is discarded shall be placed in sealed impermeable plastic bags that are located outside the containment unit. The inside of these bags shall be accessible from the containment unit during removal but the outside of the bags shall not be exposed to the work area. If the outside of bags are exposed to the work area wet wipe with an MCPS approved anti-microbial solution before removal from the containment unit. Dispose of waste in outside dumpster. Waste shall not be left inside the school at the end of the work period.
9. All surfaces within four feet of the pipes will be cleaned via HEPA vacuuming and wet wiping with an MCPS approved anti-microbial solution.
10. The work area below the pipes and an additional four foot perimeter below the pipes will be left free from visible contamination (mold and/or visible dust). All grid and lights will be wiped as part of the cleaning process.
11. All disposable tools and personal protective equipment shall be discarded as described above. All tools, equipment, and reusable personal protective suits, head coverings, glasses, etc. used during removal work shall be cleaned via wet wiping with an MCPS approved anti-microbial solution before the workers exit the containment unit.
12. Discard all water stained ceiling tiles located beneath the piping or ceiling tiles damaged during the work in the manner described above.
13. After full cleaning is complete slide all movable ceiling tiles to the side to expose the area beneath the piping for inspection by MCPS personnel or representative. The cleaning shall be approved before new insulation is installed. All plastic sheeting shall remain in place during new insulation installation.
14. After new insulation and ceiling tiles are installed remove all debris located within four feet of piping, carefully remove plastic sheeting, roll up plastic on floor and place in sealed plastic bag.
15. Mop floor and wet wipe adjacent wall surfaces as necessary to ensure work area is free of dust and debris.

Mechanical Equipment Rooms

1. Drape off doorways and windows in the room with poly sheeting.
2. With the containment unit on, position unit beneath piping and remove insulation.
3. All debris and material that is discarded shall be placed in sealed impermeable plastic bags that are located outside the containment unit. The inside of these bags shall be accessible from the

containment unit during removal but the outside of the bags shall not be exposed to the work area. If the outside of bags are exposed to the work area wet wipe with an MCPS approved anti-microbial solution) before removal from the containment unit. Dispose of waste in outside dumpster. Waste shall not be left inside at the end of the work period.

4. HEPA vacuum and wipe down the piping and area below four feet to either side of the insulation removal.
5. Below the work area, all surfaces shall be left free of visible dust or debris produced by the replacement work.

For areas where it is not practical or possible to use a portable containment unit for insulation removal, original project specifications as described in Section III D and E shall be used.