THE SCHOOL DISTRICT OF PHILADELPHIA

Environmental Advisory Council Outline

The Office of Environmental Management & Services

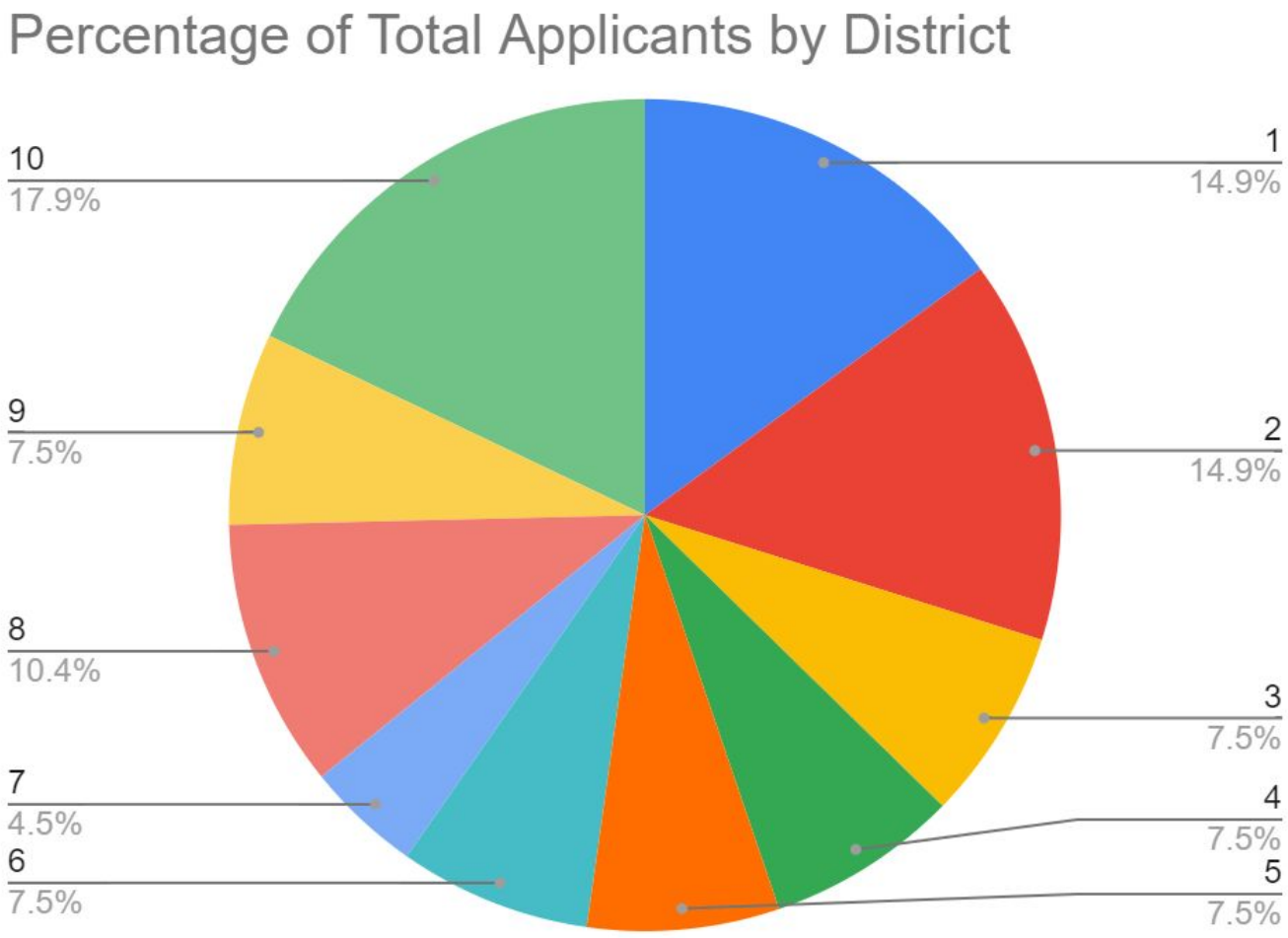
January 26, 2021
5 p.m. - 6 p.m.

Agenda

- Overview of OEMS
- Governance
- Identification of the Work Ahead
- Prioritization of Work
  - The Prioritization Process for Asbestos Removal
  - Prioritization for LBP Projects
- Quarterly Reporting

How did we get here?

DISTRICT #	APPLICANTS
1	10
2	10
3	5
4	5
5	5
6	5
7	3
8	7
9	5
10	12

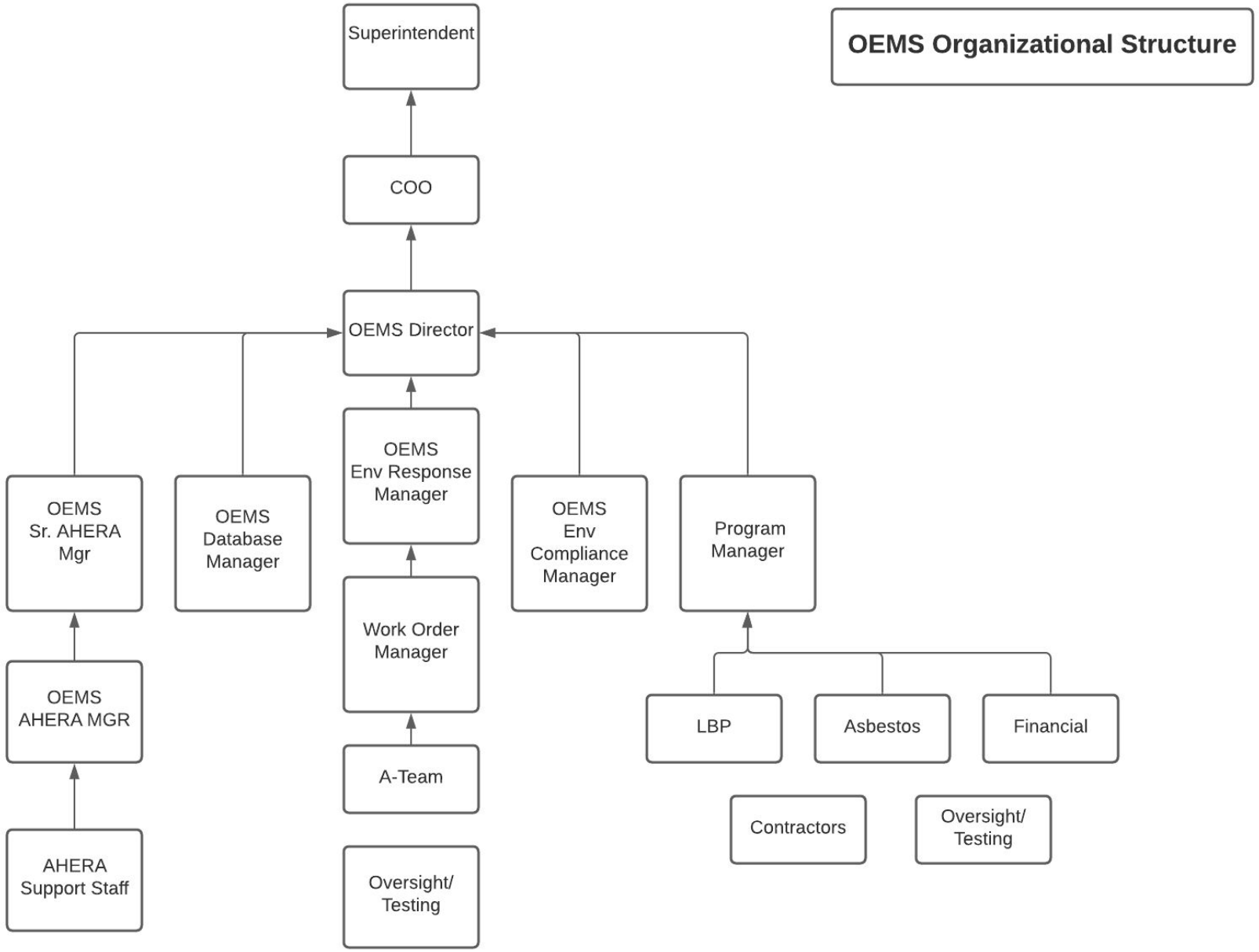


Overview of the Office of Environmental Management and Services (OEMS)

SDP and OEMS

- The School District of Philadelphia's Office of Environmental Management Services (OEMS), under direct supervision and guidance from the Chief Operations Officer, is tasked with overseeing, evaluating, and reducing the risk of environmental hazards in our schools
- Our guiding principle is to provide a space where *Teachers can teach, and Students can learn.*
- How is this accomplished?
  - Continual inspections in our schools - AHERA
  - Assistance from Principals and Building Engineers
  - Proactively removing hazards
  - Utilizing all contractual and financial avenues presented - Grant funded, Capital funded, Operations funded projects
  - Creating a central database system to capture information from a variety of sources
  - Evaluating current SDP practices throughout ALL departments
- Immediate focus areas include: asbestos, lead based paint, lead in water, indoor air quality, and underground storage tanks (UST's)

OEMS Organizational Structure



Staff Certifications

- Staff Certification include:
  - Asbestos Building Inspectors
  - Asbestos Management Planners
  - Asbestos Project Designers
  - Asbestos Worker
  - Asbestos Supervisors
  - City of Philadelphia Building Inspectors
  - City of Philadelphia Asbestos Project Inspectors
  - Lead Based Paint Inspectors
  - Lead Based Paint Risk Assessors
  - Lead Based Paint RRP (renovation, repair and paint) Certifications
  - PADEP UST Certifications
  - OSHA 30 Hour Certifications
  - OSHA 40 Hour HAZWOPER
  - CPR/First Aid

Governance

What Governs the Work We Do?

- Federal Government
  - AHERA - 40 CFR 763
  - NESHAPS - 40 CFR Part 61, Part M
  - NIOSH - 29 CFR 1910.134
  - TSCA - Section 206 - Asbestos
  - TSCA - Sections 402, 403, 404 - Lead
  - Waste Disposal - 40 CFR 1910.120
  - General Industry - 40 CFR 1910.1001
  - Lead RRP - 40 CFR 745
  - Title X - EPA - Residential Lead-Based Paint Hazard Reduction Act of 1992
- State of PA
  - Act 194 - Asbestos
  - Act 44 - Lead
- City of Philadelphia
  - Title 6 Health Code Chapter 6-600 (Asbestos Control Regulations)
  - Subcode “A” of Title 4, Section A-703 9 Lead Based Paint
  - City of Philadelphia’s Lead Safe Certification Bill No.180700
- School District of Philadelphia - Policies and Procedures
  - Policy 704 - Maintenance
  - Policy 705 - Workplace Safety

Identification of the Work Ahead

Identifying Environmental Hazards in Our Schools

- Asbestos - FAC's/BE's and Principals (that are an Asbestos Awareness Trained individuals) will, during their daily walkthroughs of their buildings, identify if a material appears to be damaged or disturbed, they will then find source documents on site (AHERA Management Plans that are kept in the Office) to determine if the material contains asbestos.
  - If no information is available, a call to the AHERA Manager is placed for assistance.
  - A determination as to the makeup of the material in question is made either by research or a Certified Building Inspector is sent to obtain a physical sample, and a recommendation is made at that time to regulate access to the area.
- Lead Based Paint - FAC's/BE's are trained and have been given HEPA Vacs to immediately remove any paint that may have fallen from a surface (defaulting that it is lead containing paint). FAC's are being trained to utilize lead test strips and can immediately sample the suspect paint for the absence of lead. If inconclusive results, the paint may be assessed by a Lead Based Paint Risk inspector. A database of known LBP is being uploaded into our database system in order to rapidly assist the FAC's and BE's.

Identifying Environmental Hazards in Our Schools

- Indoor Air Quality/Mold - BE/FAC identifies a space for evaluation. An inspector assesses the space and attempts to determine the cause. May be many different trades involved. Once cause is identified, a plan to remedy the issue is put into place with a long term plan to correct the underlying cause.
- Underground Storage Tank - BE/FAC or Certified UST inspector identifies an issue. Immediate response is taken if a spill occurs and a long term solution is proposed. Every school is equipped with a spill kit and Oil-Dry for emergency use. Contractors are dispatched to address larger projects.

OEMS Transition from Reactive to Proactive

- Past 6 months:
  - Enhanced our inspections and sampling of assumed materials
  - Constant evaluation (QA/QC) of OEMS internal procedures, including our consulting and contracting firms
  - Database development - Donesafe
  - Added staff - Compliance and Emergency Response Managers
  - Hired the A-Team Supervisor - This was a vacant position
  - Any work to be performed above ceiling tiles must be approved by OEMS
  - Student work attached/displayed on SDP installed wall equipment only.
  - Asbestos awareness video - Mandatory for some SDP employees but available to All SDP employees - Cornerstone Training Platform
  - Added additional ACM and LBP abatement to Capital funded projects
  - $1.3 Million utilized to remove ACM and re-insulate in hallways and stairwells
  - Removed over 5 acres surfacing, over 15 miles pipe insulation - Combined Cap & OEMS
  - Plan to remove ACM in Stairwells, Hallways, Attics, Gyms, Cafeterias
  - Lead Based Paint Compliance Plan to City

OEMS Transition from Reactive to Proactive - Cont.

- 101 Lead Safe Schools - Currently
  - 81 Lead Safe Certified
  - 20 Built after 1978
  - Plan to have remaining 115 schools lead safe by 2024
  - FAC's being trained to use Lead Test Strips - Immediate answer if a paint chip contains lead.
- Lead in Water
  - Adding hydration stations - $120,000 grant from city
  - Continued sampling events
- Wastes
  - Proactively removing of regulated wastes from schools

The Prioritization of Work

Risk-Based Approach for ACM Removal

Risk Based Approach - identify the friability and potential for exposure to staff and students, regardless of the school's location within the school district. Priority for removal projects is given to friable areas that can not be physically separated from Staff and Students.

1. IH - Assess and plan for abatement/removal immediately
2. Planned removal projects
    a. Hallways, stairwells, ventilation, cafeteria, gym
    b. Classrooms and other teacher/student occupied spaces
    c. Non-teacher/student occupied spaces

Risk-Based Approach

Primary Focus:

- **Friable Material** - Any material that contains greater than 1% asbestos, when dry, that can be reduced to powder utilizing hand pressure
  - Example - Boiler breeching - *Just because a material is defined as friable does not mean it is actively releasing asbestos fibers*

Secondary Focus:

- **Non Friable** - Any material that contains greater than 1% asbestos, when dry, can not be reduced to powder utilizing hand pressure
  - Example - Floor Tiles

Imminent Hazard - Immediate Response/Abatement

- Notification of the IH - restrict access to the space
- Review AHERA information for that school to determine additional damage listed in the school
- If possible, remove system that produced the IH during the response action
- If possible, remove additional materials if the space is unoccupied, whether it is damaged or not.
- Evaluate the rest of the facility, to repair any additional materials in student/teacher occupied areas throughout the facility - considerations include available resources, timelines, locations (non teacher/student occupied areas), other high risk work needed in other facilities.
- Maintain any information for additions into a Capital Project work scope.

Planned Removal

- Utilizing data from our AHERA inspections, OEMS creates a computer generated list of elementary schools that contain the following:
  - ACM in Hallways separated by floors
  - ACM in Stairwells
  - ACM in Gymnasiums
  - ACM in Cafeterias
  - ACM in Attic Spaces
  - ACM that will be impacted by painting projects
- Generate Scopes of Work, prepare bid documents, bid, remove and re-insulate (if required)
- The same data driven list is then repeated for Middle and High Schools.
- Obviously the schools that have more damage are moved to the top of the list. (Risk Based)

Once work in these spaces is evaluated, a shift in focus will become the Classrooms and other Student/Teacher Occupied spaces in coordination with the Principal to provide Swing Spaces.

Asbestos project steps - Overview

How is an asbestos project performed?

A scope of work is identified and approval for abatement is provided:

- State and Local Notifications are submitted
- Pre-air samples are taken and analyzed (3rd party consultant - API)
- Work area is physically separated from the rest of the school
- Work area is pre-cleaned using HEPA vacuum and wet wiping
- Containment is constructed, negative air is established, pre commencement inspection is completed, work begins.
- Exterior air sampling is constantly being performed by API
- Once work is completed - API inspects work area - approves it for final air sampling
  - Major - Up to 5 Transmission Electron Microscopy (TEM) inside and outside of the contained area
  - Minor - Up to 5 Phase Contrast Microscopy (PCM) inside of the contained area - TEM samples may be obtained as a substitution to PCM
  - Small - Up to 5 Phase Contrast Microscopy (PCM) inside of the contained area
- Upon passing air samples, established by the City of Philadelphia Asbestos Control Regulations, the containment is removed, area is wet wiped and a HEPA vacuum is used during teardown
- Close out report is provided to OEMS by the API firm to close out the project

Prioritization for LBP Projects

LBP “Lead Safe” Certification by 2024 Prioritization

The School District of Philadelphia started a Lead Safe Certification program, with the intention of making all school buildings “Lead Safe” in compliance with the amended Section A703, entitled “Special Certificate of Inspection,” of Subcode “A” (The Philadelphia Administrative Code) of Title 4 (The Philadelphia Building Construction and Occupancy Code) to provide for lead paint requirements for educational occupancies.

The priority for obtaining “Lead Safe” Certifications, that has been established and reviewed by the City of Philadelphia, begins with the oldest elementary schools where the walls are constructed with plaster construction. A transition is then made to the oldest elementary schools that are constructed utilizing Cementitious Masonry Block (CMU). Once these facilities are inspected and work is planned, a shift is then made towards our middle and then high schools. These facilities are assessed and work will be planned in the same order (oldest plaster to oldest block).

LBP “Lead Safe” Certification Process

How does a school get certified as “Lead Safe”?

- Survey of the school is performed by a LBP Inspector/Risk Assessor
  - Any damaged paint is sampled to determine lead content OR assumed to contain lead.
- Identify areas in student/teacher occupied spaces - *excludes boiler rooms, crawl spaces, attics and above ceiling tiles.*
- LBP Risk Assessor provides scope of work
- Scope of work assigned to in-house (RRP certified maintenance painters) painters or to outside RRP (Lead Renovation, Repair and Painting Program) contractors
- Scopes are completed under RRP guidelines and sampling procedures
- Once all the identified damaged lead-based paint has been stabilized in all student/teacher occupied areas and dust samples in child-occupied areas (ages 6 and under) fall under EPA lead hazard thresholds a Lead Based Paint Risk Assessor/Lead Dust Sampling Technician certifies that the school is lead safe as of that date. This certification is applicable for that school for 5 years from the date of signature.
- If LBP in Student/Teacher Occupied spaces becomes damaged, the FAC or BE would utilize a HEPA vac to clean up any debris. The FAC/BE would write a Work Order for the repair of the surface utilizing RRP protocols.

Full Stabilization of Paint and Plaster Project

Full stabilization means that the entire school is repaired (plaster) and painted regardless of lead content of the paint using RRP protocols.

- The entire school is assessed for damage to the walls
- The entire school is repaired and painted utilizing the RRP Protocols whether or not the paint contains lead.
- The school is also certified by Inspection firm - same 5 year timeframe

Please note that the entire school does not have to be painted in order to get a “Lead Safe Certification”

Quarterly Reporting

Quarterly Reporting

- **AHERA inspections**
  - How many were scheduled,
  - How many were completed,
  - How Many IH's were identified,
  - How many IH's were abated,
  - How much additional material was removed during the IH abatement.
- **Current Asbestos Projects**
  - Listing of scopes of work and costs for each school
  - % complete
  - Issues
- **Planned Asbestos Projects**
  - Listing of scopes of work and costs for each school
  - Potential Issues/Revisions to sequence

Quarterly Reporting Continued

- **Current Lead Based Paint Safe Projects**
  - Listing of scopes of work and costs for each school
  - % complete
  - Issues
- **Planned Lead Based Paint Safe Projects**
  - Listing of scopes of work and costs for each school
  - Potential Issues
- **Lead in Water Testing report**
- **Hydration station installations**
- **Regulated/Hazardous waste removal report - quantities removed and properly disposed**

Test Case

Elementary School - Started as IH - added more

- AHERA Inspection on December 10, 2020
- IH was identified in the basement hallway,
- Notification protocols were followed
- Plan to abate IH was generated to address the IH added additional material located on the same pipe runs - Total removal of 1,462 lf of pipe insulation.
- Evaluated the entire basement - Added an additional 445 lf of pipe insulation in 2 additional hallways, gym, 2 additional rooms
- Reviewed work orders and added to scope
- Permanently Sealed Interstitial space between Gym Ceiling and Auditorium
- Began work immediately
- Constant communication with Principal.

Any questions?