



2008-2009

# Indoor Air Quality Program

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**Raymond J. Brosel**  
**Superintendent of Schools**

**Dr. Frank T. DeBerardinis**  
**Assistant Superintendent for Business/  
Board Secretary**

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**October 2008**

We would like to acknowledge the work of Clark Mathes and Roy Waite in the preparation of the Indoor Air Quality Program.

## **Policy and Administration**

This notice is to inform employees that Voorhees Township Public Schools complies with the Public Employees Occupational Safety and Health (PEOSH) Program, Indoor Air Quality (IAQ) Standard (N.J.A.C. 12:100-13)(2007), which was proposed on December 18, 2006 and adopted on May 21, 2007.

We recognize that good indoor air quality is essential to employees' health and the productivity of the students. We have established the following policies to promote good indoor air quality for our students and employees in our schools. These policies follow the requirements established by the PEOSH IAQ Standard as it applies to our work place. This Written Indoor Air Quality Program applies to the following schools/buildings:

1. E.T Hamilton School
2. Kresson School
3. Signal Hill School
4. Osage School
5. Voorhees Middle School
6. Administration Building

## **Designated Person**

As required by the New Jersey PEOSH Indoor Air Quality Standard a person has been designated as the person responsible for the Voorhees School District's compliance with the standard.

This person is: *Clark Mathes* Phone# 856-751-8446 ext. 6123

The designated person is the person who has been trained and given the responsibility by the Voorhees Board of Education to make routine visual inspections, oversee preventive maintenance programs and maintain required records in order to ensure compliance with the IAQ Standard. The designated person is also assigned to receive concerns/complaints about indoor air quality, conduct investigations, facilitate repairs or further investigation as necessary, maintain required records, and update the written program annually.

## **Preventive Maintenance Schedule**

Preventive maintenance schedules that follow manufacturers' specifications are in place for heating, ventilation and air conditioning systems (HVAC) in this workplace. A copy of the preventive maintenance schedule is included. Damaged and inoperable components will be repaired or replaced as appropriate and a work order to show actions taken will be completed.

## **Recordkeeping**

Documentation of preventive maintenance to the ventilation system is retained on the Voorhees Township Maintenance Server HVAC Folder starting in 2001 and includes the following information:

- Date that preventive maintenance was performed
- Person or company performing the work
- Documentation of:
  - Checking and/or changing air filters
  - Checking and/or changing belts
  - Lubrication of equipment parts
  - Checking the functioning of motors
  - Confirming that equipment is in operating order
  - Cleaning of coils

Documentation of preventive maintenance and work orders for repairs are maintained by: *Roy Waite* - HVAC Service Manager

## **Indoor Air Quality Compliance Documents**

The Voorhees Township Board of Education will make reasonable efforts to obtain and maintain copies of IAQ compliance documents. Available IAQ compliance documents will be maintained by the Designated Person and will be available to PEOSH during an inspection. These documents include:

1. As-built construction documents
2. HVAC system commissioning reports
3. HVAC systems testing, adjusting, and balancing reports
4. Operations and maintenance manuals
5. Water treatment logs

## **Investigating Complaints**

If employees begin to experience health symptoms that they believe are related to poor indoor air quality, they should notify the Designated Person so that their concerns can be investigated.

The Designated Person has been trained and given the authority to conduct basic indoor air quality complaint investigations. In many cases IAQ complaints can be resolved by the Designated Person.

## **Responding to Signed Employee Complaints to PEOSH**

If we receive a written notification from PEOSH that a signed employee complaint has been filed with PEOSH, we will conduct an inquiry into the allegations. The findings of the initial inquiry and any planned actions will be provided in a written response to PEOSH within fifteen (15) working days of receipt. Copies of all responses to PEOSH will be maintained by the Designated Person.

## **Notification of Employees**

The Designated Person will notify employees at least 24 hours in advance or promptly in emergency situations, of work to be performed on a building that may introduce air contaminants into their work area. This notification will be in writing and will identify the planned project and the start date. The notification will also include information on how to access Material Safety Data Sheets (MSDS) or other hazard information. The Designated Person will maintain records of this notification for compliance recordkeeping purposes.

## **Controlling Microbial Contamination**

Uncontrolled water intrusion into buildings (roof leaks, flooding, pipe condensation, plumbing leaks, or sewer backups) has the potential to support microbial growth. All employees should routinely observe their workplace for evidence of water intrusion (i.e. roof leaks, pipe leaks). Employees should notify the Designated Person immediately if they observe evidence of water intrusion so that corrective action can be taken. Ceiling tiles, carpet, and wall boards not dried within 48 hours may be removed as directed by the Designated Person.

## **Controlling Air Contaminants**

### Outside Air

The Designated Person will identify the location of outside air intakes and identify potential contamination sources nearby, such as loading docks or other areas where vehicles idle, nearby exhaust stacks, or vegetation. Periodic inspections will be conducted to ensure that the intakes remain clear of potential contaminants. If contamination occurs, the Designated Person will eliminate the contaminant source or make arrangements to relocate the intake.

### Point Source Contaminants

The Designated Person will identify point sources of contaminants and arrange to capture and exhaust these sources from the building using local exhaust ventilation. Exhaust fans will be periodically inspected to ensure that they are functioning properly and exhausting to areas located away from outside air intakes.

## **Response to Temperature and Carbon Dioxide**

### Temperature

Where a mechanical ventilation system capable of regulating temperature is present, facilities personnel strive to maintain office building temperatures within the range of 68 to 79 degrees Fahrenheit. If outside this range, the Designated Person should be contacted. The Designated Person will ascertain whether the HVAC system is operating properly. If not, the system must be repaired. The IAQ Standard does not require the installation of new HVAC equipment to achieve this temperature range.

### Carbon Dioxide

If the room is equipped with non-mechanical ventilation systems such as operable windows, stacks, louvers, the Designated Person should ensure that these areas are clear and operable to allow the flow of air. If carbon dioxide (CO<sub>2</sub>) concentrations exceed 1,000 parts per million (ppm), and the room is not equipped with operable windows, the Designated Person will conduct an inspection to ensure that the mechanical HVAC system is operating properly.

## **Maintaining Indoor Air Quality during Renovation and Construction Projects**

Renovation work and/or new construction projects that have the potential to result in the diffusion of dust, stone and other small particles, toxic gases or other potentially harmful substances into occupied areas in quantities hazardous to health will be controlled in order to minimize employee exposure. The Designated Person will utilize the following protocol to assure that employees' exposure to potentially harmful substances is minimized:

- Obtain MSDS for all products to be utilized on the project and maintain on-site throughout the duration of the project.
- Choose the least toxic product that is technically and economically feasible.
- Consider performing the renovation/construction project when building is least occupied.
- Consider temporarily relocating employees to an alternate worksite.
- Notify potentially affected employees, in writing, at least 24 hours prior to commencement of chemical use or dust generation.
- Isolate the work area from occupied areas.
- Use mechanical ventilation and local exhaust ventilation to maintain a negative pressure gradient between work and occupied area.

Before selection and use of paints, adhesives, sealants, solvents or installation of insulation, particle board, plywood, floor coverings, carpet backing, textiles, or other materials in the course of renovation or construction, the designated person will check product labels or seek and obtain information from the manufacturer of those products on whether or not they contain volatile organic compounds such as solvents, formaldehyde or isocyanates that could be emitted during regular use. This information should be used to select the least volatile/hazardous products and to determine if additional necessary measures need to be taken to comply with the objectives of this section. The Designated Person will maintain records of this evaluation for compliance recordkeeping purposes.

Management and the Designated Person will consider the feasibility of conducting renovation/construction work using appropriate barriers, during periods when the building is unoccupied, or temporarily relocating potentially affected students and staff to areas of the building that will not be impacted by the project.

Temporary barriers will be utilized to provide a physical isolation between the construction area and occupied areas of the building.

Mechanical ventilation (i.e. fans, portable blowers, or existing HVAC equipment) will be used to maintain a negative pressure gradient between the work area and

occupied areas to ensure the safety of students and staff. Renovation areas in occupied buildings will be isolated and dust and debris shall be confined to the renovation or construction area.

If work is being performed by an outside contractor, the Designated Person will maintain communication with contractor personnel to ensure they comply with the requirements of the PEOSH IAQ standard.

Employees who have special concerns about potential exposures during or after renovation/construction/repair work should consult with their principal. If despite these preventive actions, employees are exposed to air contaminants resulting in health effects, employees will be instructed to report any work-related health symptoms to one person (e.g., the nurse, human resources, designated person) so that they can be accurately assessed and investigated when indicated. All exposures should also be reported to their principal and the designated person.

### **Obtaining Permits and Performing Work in Accordance with the New Jersey Uniform Construction Code (N.J.A.C. 5:23)**

Permits for renovation and construction-related work will be obtained as required by the New Jersey Uniform Construction Code (NJUCC), (N.J.A.C. 5:23). All work requiring a permit will be performed in compliance with N.J.A.C. 5:23. Additional information concerning the NJUCC can be obtained from the NJ Department of Community Affairs, Division of Codes and Standards ([www.state.nj.us/dca/codes](http://www.state.nj.us/dca/codes)), 609-984-7609)

### **Maintaining Natural Ventilation in Buildings without Mechanical Ventilation**

In schools not equipped with mechanical ventilation the Designated Person will identify the location of non-mechanical ventilation systems, such as stacks and operable windows. Periodic inspections will be conducted to ensure that these systems are operable and the surrounding areas remain clear of obstructions and potential contaminants.

### **Employee Responsibilities**

Employees have a role in maintaining good indoor air quality within their workplace. Employees should ensure that they do not introduce unauthorized chemicals (i.e. fragrances, air fresheners, cleaning solvents, ozone generators) into the workplace. In addition, if employees observe situations which may lead to poor indoor air quality (i.e. inoperable windows, water leaks, and visible mold) they should notify Clark Mathes at phone # 856-751-8446 ext. 6123 of the situation so that it can be addressed promptly.

Employees are responsible for maintaining mechanical and passive ventilation systems by ensuring that louvers and diffusers remain clear to allow the free flow of air. Intentionally blocking, diverting, or otherwise manipulating components (i.e. thermostat,) of the ventilation system may result in disruption of the ventilation system in the immediate area or other occupied areas of the building.

### **Periodic Review and Update**

The Written Indoor Air Quality Program will be updated at least annually to reflect changes in policies, procedures, responsibilities, and contact information. This plan will be reviewed prior to 2010.

### **Certifications:**

Reviewed and Approved:

*Frank T. DeBerardinis*

*October 28, 2008*

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Dr. Frank T. DeBerardinis  
Assistant Superintendent Business

Date

*Clark Matthes*

*October 28, 2008*

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Mr. Clark Matthes  
Director of Buildings & Grounds  
Designated Person

Date

## **PROCEDURES FOR PROCESSING AN ENVIRONMENTAL CONCERN ON THE PART OF AN EMPLOYEE, STUDENT OR PARENT**

1. Interview person or persons affected completing an interview check-list. This check-list will record the person's name, specific location, symptoms, time when first affected, time of symptoms, date and time of the notification to the administration. The length of occurrence - does it occur after school, etc.
2. If deemed a serious concern, locate the class to another room if at all possible.
3. Identification of the odor.
4. Inspection procedures:
  - a. Thorough check of the heating and ventilation system to ensure it is properly working and the correct amount of fresh air is being circulated.
  - b. Check the condition of the filters and when they were last replaced.
  - c. Inspect the duct work.
  - d. Check carpet, wall surfaces and above the ceiling for mold or mildew.
  - e. Check the presence of exhaust fumes from adjunct systems.
  - f. Check the lighting for defective ballast.
  - g. Report findings on the check-list developed in number one.
5. Remedial work:
  - a. Shampoo carpet.
  - b. Wipe down walls and furnishings.
  - c. Clean above the ceiling if possible.
  - d. Replace any damaged ceiling tile.
  - e. Replace filters.
  - f. Redirect exhaust fan in adjacent systems, if applicable.

All cleaning shall be done with EPA approved anti-bacteria cleaning agents. If the problem continues, call an outside consultant. **AIR Consulting Services, LLC at (609) 371-2489**

**CHECK LIST FOR PROCESSING AN ENVIRONMENTAL CONCERN  
ON THE PART OF AN EMPLOYEE, STUDENT OR PARENT**

1. Interview person or persons affected:

- [ ] Persons Name \_\_\_\_\_
- [ ] Specific Location \_\_\_\_\_
- [ ] Symptoms Reported \_\_\_\_\_
- [ ] Date when First Affected \_\_\_\_\_
- [ ] Time of Day when Affected \_\_\_\_\_
- [ ] Length of Occurrence \_\_\_\_\_
- [ ] Does it occur after school? \_\_\_\_\_
- [ ] Date \_\_\_\_\_ and Time \_\_\_\_\_ of the Notification to Administration.

2. If deemed a serious concern, locate the class to another room if at all possible.

3. Identification of the odor.

4. Inspection Procedures:

- [ ] Thorough check of the heating and ventilation system to ensure it is properly working and the correct amount of fresh air is being circulated.
- [ ] Check the condition of the filters and when they are last replaced.
- [ ] Inspect the duct work.
- [ ] Check carpet, wall surfaces and above the ceiling for mold or mildew.

- Check the presence of exhaust fumes from adjunct systems.
- Check the lighting for defective ballast.

5. Remedial work:

- Shampoo carpet.
- Wipe down walls and furnishings.
- Clean above ceiling if possible
- Replace any damaged ceiling tiles.
- Replace filters.
- Redirect exhaust fan or vent in adjacent systems if applicable.

All cleaning shall be done with EPA approved anti-bacteria cleaning agents.  
If the problem continues, call an outside consultant. **AIR Consulting Services, LLC** at (609) 371-2489

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**Dr. Frank T. DeBerardinis  
Assistant Superintendent Business**

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**Date**

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**Mr. Clark Mathes  
Director of Buildings & Grounds  
Designated Person**

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**Date**

# Written H.V.A.C. Preventive Maintenance Schedule

## Equipment

**Brand:** All Brands

**Equipment Type:** Air Intake & Exhaust Fans    **Style:** All Styles

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed or Washed							X
Lubrication of Motors							X
Lubrication of Bearings							X
Checking Belts							X
Cleaning Air Passages							X
Cleaning Air Vents							X

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

**ALL BUILDINGS**

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** WeilMCclain

**Equipment Type:** Low Pressure Boilers      **Style:** Hot Water

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Lubrication of Motors					Yes, in	November	
Lubrication of Bearings					Yes, in	November	
Flue Damper Operation					Yes, in	November	
Checking Relieve Vents					Yes, in	November	
Checking Igniter					Yes, in	November	
Cleaning Air Passages					Yes, in	November	
Cleaning Water Passages					Yes, in	November	
Checking Pumps					Yes, in	November	
Check or Replace Contactors					Yes, in	November	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Signal Hill - Boiler Room

Osage - Boiler Room

Administration Building - Boiler Room

# **Written H.V.A.C. Preventive Maintenance Schedule**

## Equipment

**Brand:** Armstrong

**Equipment Type:** Circulating Pumps      **Style:** Electric

**Using the chart above you can determine the frequency an item is to be checked and/or serviced.**

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Signal Hill - Boiler Room

## **Osage - Boiler Room & Garage**

Administration Building - Boiler Room & Electrical Room Off Dining Room

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Baltimore Air Coil

**Equipment Type:** Cooling Tower      **Style:** Spray Nozzle Evaporative

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed or Washed					Yes, in	April	
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Cleaning Water Passages					Yes, in	April	July & Aug
Check or Replace Contactors	NONE						

**Equipment Brand:** Baltimore Air Coil

**Equipment Type:** Water Filtration      **Style:** Sand

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Sand Stirred					Yes, in	April	
Back Wash Operation					Yes, in	April	
Relief Vent					Yes, in	April	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Signal Hill - Outside in rear of Building

Administration Building - Outside in Rear of Building

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Baltimore Air Coil

**Equipment Type:** Cooling Tower      **Style:** Fan Forced Evaporative

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed or Washed					Yes, in	April	
Lubrication of Motors					Yes, in	April	
Lubrication of Bearings					Yes, in	April	
Checking Belts					Yes, in	April	
Cleaning Water Passages					Yes, in	April	July & Aug
Check or Replace Contactors					Yes, in	April	

**Equipment Brand:** Baltimore Air Coil

**Equipment Type:** Water Filtration      **Style:** Sand

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Sand Stirred					Yes, in	April	
Back Wash Operation					Yes, in	April	
Relief Vent					Yes, in	April	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Osage - Outside in rear of building

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Baltimore Air Coil

**Equipment Type:** Heat Exchanger      **Style:** Tube & Shell

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Brush Clean Tubes					Every Other	In April	
Acid Clean Tubes					Every Other	In April	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

EXAMPLE: If tubes were brushed in 2000, they would be acid cleaned in 2001 and brushed in 2002, etc.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Signal Hill - Boiler Room

Osage - Boiler Room

Administration Building - Boiler Room

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Goodman

**Equipment Type:** Air to Air Heat Pump      **Style:** Residential Split system

Ductless: Yes

Ductwork: \_\_\_\_\_

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	NONE						
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle School - Computer Server Room

# Written H.V.A.C. Preventive Maintenance Schedule

Equipment Brand: EMI

Equipment Type: Air to Air Heat Pump Style: Residential Split system

Ductless: Yes

Ductwork: \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	NONE						
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Osage - Computer Server Room

E.T. Hamilton - Computer Server Room

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Sony

**Equipment Type:** Air to Air Heat Pump      **Style:** Thru Wall Package Unit

Ductless: Yes \_\_\_\_\_

Ductwork: \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed	X						
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents			X				
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Hamilton - Rooms 24

Kresson - Gym Office

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** McQuay

**Equipment Type:** Air to Air Heat Pump      **Style:** Thru Wall Package Unit

Ductless: Yes

Ductwork: \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed	X						
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents			X				
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors						X	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Hamilton - Rooms 22 & 23

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** McQuay Roof Top  
**Equipment Type:** Electric Heat w/ DX Cooling **Style:** Commercial Package Unit  
  
**Ductless:** \_\_\_\_\_  
**Ductwork:** Yes

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle - Library, A.P.R. - Units 1, 2, 3, & 4

Kresson - Gym - Units A & B

# Written H.V.A.C. Preventive Maintenance Schedule

Equipment Brand: McQuay

Equipment Type: Electric Heat w/ DX  
Cooling Style: Commercial Split system

Ductless: \_\_\_\_\_

Ductwork: Yes

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors			X				
Lubrication of Bearings			X				
Checking Belts			X				
Checking Damper Operation					X		
Cleaning of Air Vents							X
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors						X	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle - Theater A & B Units, & Theater Booth

Hamilton - A.P.R. - A & B Units, & Gym A & B units

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** McQuay

Floor Mounted

**Equipment Type:** W/S - Heat Pump      **Style:** Water Source

Ductless: \_\_\_\_\_

Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Unit Filters Changed			X				
Duct Filters Changed	NONE						
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	FIXED						
Cleaning of Air Vents							X
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Administration Building - All Heat Pumps in Building

# Written H.V.A.C. Preventive Maintenance Schedule

Equipment Brand: McQuay

Roof Top

Equipment Type: W/S - Heat Pump Style: Water Source

Ductless: \_\_\_\_\_

Ductwork: Yes

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Unit Filters Changed			X				
Duct Filters Changed	NONE						
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors						X	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Signal Hill - 3 Gym Units

# Written H.V.A.C. Preventive Maintenance Schedule

Equipment Brand: McQuay

Ceiling Mounted

Equipment Type: W/S - Heat Pump Style: Water Source

Ductless: \_\_\_\_\_

Ductwork: Yes

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Grill Filters Changed	X						
Duct Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	FIXED						
Cleaning of Air Vents							X
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Signal Hill - All Heat Pumps in Building Except the 3 for Gym

Osage - Rooms 160, 161, 162, 163, 164, Rm P-10, 135, 225, 226, 227, 228, 229, & 230

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Enercon II  
Floor Mounted

**Equipment Type:** W/S - Heat Pump      **Style:** Water Source

Ductless: \_\_\_\_\_

Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Grill Filters Changed	X						
Unit Filters Changed	X						
Lubrication of Motors					X		
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	FIXED						
Cleaning of Air Vents							X
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Osage - Rooms 101, 102, 103, 104, 105, 106, 107, 108, 110, 111, 112, 113, 114, 115, 116, 117, 118,  
119, 120, 121, 122, 123, & 124

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Enercon II  
Ceiling Mounted

**Equipment Type:** W/S - Heat Pump      **Style:** Water Source

Ductless: \_\_\_\_\_  
Ductwork: Yes

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Grill Filters Changed	NONE						
Duct Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	FIXED						
Cleaning of Air Vents							X
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Osage - Main Office, Nurse, Principal's Office Unit 1 & 2, Copy Rm., & Rm 125

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Rheem  
**Location:** Roof Top

**Equipment Type:** Air to Air Heat Pump      **Style:** Commercial Package Unit

**Ductless:** \_\_\_\_\_

**Ductwork:** Yes \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation	FIXED						
Cleaning of Air Vents				X			
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors				X			

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle - Rooms B5, B7, B12, B14, & E-Wing Kitchen

Hamilton - Gym Office & Nurse's Office

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Snyder General  
  Roof Top

**Equipment Type:** Air to Air Heat Pump      **Style:** Commercial Package Unit

Ductless: \_\_\_\_\_

Ductwork: Yes

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle - Principal's Office, A- Wing Nurse's Office, A1, A2, & A15

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** York

**Equipment Type:** Air to Air Heat Pump      **Style:** Residential Split system

Ductless: \_\_\_\_\_

Ductwork: Yes

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Osage - Rooms 165, 166, 167, 168, & 169

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** York  
Roof Top

**Equipment Type:** Air to Air Heat Pump      **Style:** Commercial Package Unit

Ductless: \_\_\_\_\_  
Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation	FIXED						
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle - Band Room, Wood Shop Unit "A", D-Wing Main Office & Room A25

Osage - Room 170

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Carrier

**Equipment Type:** Air to Air Heat Pump      **Style:** Residential Split system

Ductless: \_\_\_\_\_

Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle - Band Office, Teacher's Dining, Wood Shop Unit "B", & C-Wing Art Office

Hamilton - Rooms 13A, Teachers Dining, & Music Sound Room

Osage - Rooms 26, 27, & Music Sound Room

Kresson - Main Office, Xerox Copy Rm, Nurse, Rm 3, 26, 27 & 28

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Carrier

**Equipment Type:** Air to Air Heat Pump      **Style:** Commercial Split system

Ductless: \_\_\_\_\_

Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Kresson - A.P.R. & Library Units - A & B

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Carrier  
Roof Top

**Equipment Type:** Air to Air Heat Pump      **Style:** Residential Package Unit

Ductless: \_\_\_\_\_  
Ductwork: Yes

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors						X	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Middle - Rooms A9, A11, A13, A17, A19, A21, & A23

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Carrier  
Roof Top

**Equipment Type:** Air to Air Heat Pump      **Style:** Commercial Package Unit

Ductless: \_\_\_\_\_  
Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors						X	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Middle - Mini Gym

Hamilton - Library

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Trane

**Equipment Type:** Air to Air Heat Pump      **Style:** Commercial Split system

Ductless: \_\_\_\_\_

Ductwork: Yes \_\_\_\_\_

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

**THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:**

Middle - Old Café, & Lecture Hall

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Trane Roof Top

**Equipment Type:** Gas Heat / DX Cooling    **Style:** Commercial Package Unit

Ductless: \_\_\_\_\_  
Ductwork: Yes

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed			X				
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Cleaning Burner Assembly					X		
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Osage - Watson Center

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Trane

**Equipment Type:** Air to Air Heat Pump      **Style:** Ventilator      Class Room Unit

Ductless: Yes

Ductwork: \_\_\_\_\_

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed	X						
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents			X				
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors						X	

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Hamilton - Rooms 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 18, 19, & 66

Kresson - Rooms 17, 18, 19, 20, 21, 22, 23, & 24

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** American Air Filter (McQuay Product)

**Equipment Type:** Air to Air Heat Pump      **Style:** Ventilator      Class Room Unit

Ductless: Yes

Ductwork: \_\_\_\_\_

Maintenance	FREQUENCY						
Item To Maintain	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed	X						
Lubrication of Motors					X		
Lubrication of Bearings					X		
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents			X				
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle School - A8, A10, A12, A14, A16, A18, A20, A22, A24, B1, B2, B3, B4, B6, B8, B9, B10, B11, B13, B15, B16, B17, B18, B19, B20, C1 thru C10, E1 thru E14.

Hamilton - Room 12,14, 16, 17, 20, 21, 31, 32, 33, 34, 35, & 36

Kresson - Room 1, 2, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 151, 152, 153, 154, 155, & 156

Osage - Room 128, 129A, 130

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Airedale

**Equipment Type:** Air to Air Heat Pump      **Style:** Ventilator      Class Room Unit

Ductless: \_\_\_\_\_

Ductwork: Yes

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed	X						
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts					X		
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle School - Rooms D1 thru D6

E.T. Hamilton - Rooms 25,26,28,29 & 30

# Written H.V.A.C. Preventive Maintenance Schedule

**Equipment Brand:** Edpac

**Equipment Type:** Air to Air Heat Pump      **Style:** Ventilator      Class Room Unit

**Deckles:** \_\_\_\_\_

**Ductwork:** Yes

Maintenance	FREQUENCY						
	2 Months	3 Months	4 Months	6 Months	Yearly	Seasonal	As Needed
Filters Changed	X						
Lubrication of Motors	NO LUBE						
Lubrication of Bearings	NO LUBE						
Checking Belts	NO BELTS						
Checking Damper Operation					X		
Cleaning of Air Vents					X		
Cleaning of Refrigerant Coils							X
Cleaning Condensation Pans							X
Cleaning Air Passages							X
Cleaning Water Passages							X
Check or Replace Contactors					X		

Using the chart above you can determine the frequency an item is to be checked and/or serviced.

## THIS EQUIPMENT IS LOCATED IN THE FOLLOWING:

Middle School - Rooms D7 thru D10

E.T. Hamilton - Room 27