

Aston A. Henry, Director  
Risk Management Department

Telephone: 754 321-1900  
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September 16, 2013

Signature on File

TO: Michael Consaul, Principal  
**Pioneer Middle School**

FROM: Richard Rosa, Project Manager  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed
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On September 10, 2013, I conducted an assessment at **Pioneer Middle School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

The IAQ assessment did identify one or more existing conditions impacting IAQ and has generated appropriate work orders to correct deficiencies in systems and maintenance that could contribute to decreased indoor air quality. At the time of the assessment, these concerns were not an immediate health or safety concern to building occupants. However, due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to agents and / or conditions identified during the evaluation. Therefore, to further improve IAQ, prevent development of future IAQ-related problems, and to reduce the potential for IAQ-related complaints by building occupants, the IAQ Assessment Team recommends appropriate follow up of each item identified and listed in the attached evaluation.

*Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. In an attempt to separate IAQ issues from general maintenance items, the attached assessment may contain direction for site based staff to generate a work order through COMPASS. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all site based custodial issues have been appropriately addressed.*

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact us at 754-321-1907.

cc: Shelley Meloni, Task Assigned Chief Facilities & Construction Officer, Facilities & Construction  
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division  
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division  
Aston Henry, Director, Risk Management  
Sonja Coley, Senior Project Manager, Facilities & Construction  
Broward Teachers Union  
Federation of Public Employees

RR/tc  
Enc.

# IAQ Assessment

Pioneer Middle

Evaluation Date September 10, 2013

Time of Day 1:00

Outdoor Conditions    Temperature 86.3

Relative Humidity 75.2

Ambient CO2 455

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">141</span>	<span style="border: 1px solid black; padding: 2px;">75.9</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">36.5</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">1677</span>	<b>MAX 700 &gt; Ambient</b>	<span style="border: 1px solid black; padding: 2px;">12</span>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>	
Ceiling	<span style="border: 1px solid black; padding: 2px;">2' x 4'</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>		
Walls	<span style="border: 1px solid black; padding: 2px;">Folding/drywall</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>		
Floor	<span style="border: 1px solid black; padding: 2px;">12" x 12" Vinyl</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;"></span>		

Ceiling Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Supply Grills Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Return Grills Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Walls Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Supply Duct Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Return Duct Clean	<span style="border: 1px solid black; padding: 2px;">No</span>
Flooring Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Ceiling at Supply Grills Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>		
Room Surfaces Clean	<span style="border: 1px solid black; padding: 2px;">No</span>				

Trash Removed	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working	<span style="border: 1px solid black; padding: 2px;">N/A</span>	Unapproved Chemicals / Cleaners in Room	<span style="border: 1px solid black; padding: 2px;">No</span>
Signs of Pests	<span style="border: 1px solid black; padding: 2px;">No</span>	Drain Traps Wet	<span style="border: 1px solid black; padding: 2px;">N/A</span>	Air Fresheners in Room	<span style="border: 1px solid black; padding: 2px;">No</span>
Room Cluttered	<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers	<span style="border: 1px solid black; padding: 2px;">N/A</span>		

Mechanical Equipment Location	FISH 142A		Mechanical Room Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	
Filters Installed Properly	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Filters Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of HVAC Unit Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Condensate Pan Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Cooling Coil Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>		

Fresh Air Intake Location	Roof top	Fresh Air Intake Free of Obstruction	<span style="border: 1px solid black; padding: 2px;">No</span>
Pollutant Sources Near Air Intake	No		

**Observations**

Check the fresh air damper for normal operation due to elevated CO2. Remove storage from the mechanical room (142A).

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- Corrective Actions to be Completed by Site Based Staff**
- |                                      |   |
|--------------------------------------|---|
| Thoroughly clean horizontal surfaces | ▼ |
| Clean surfaces in mechanical room    | ▼ |
| and remove storage                   | ▼ |
|                                      | ▼ |
|                                      | ▼ |
|                                      | ▼ |
|                                      | ▼ |
|                                      | ▼ |

- Corrective Actions to be Completed by PPO**
- |  |   |
|--|---|
| Repair HVAC to reduce CO2 level              | ▼ |
| Clean HVAC return drops                      | ▼ |
| Evaluate fresh damper in the mechanical room | ▼ |
| Clean HVAC return duct work in 142A          | ▼ |
| Evaluate the exterior door weather stripping | ▼ |
|  | ▼ |
|  | ▼ |
|  | ▼ |



# IAQ Assessment

Pioneer Middle

Evaluation Date September 10, 2013

Time of Day 12:30

Outdoor Conditions    Temperature 86.3

Relative Humidity 75.2

Ambient CO2 455

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">145</span>	<span style="border: 1px solid black; padding: 2px;">72.3</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">48.1</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">1907</span>	<b>MAX 700 &gt; Ambient</b>	<span style="border: 1px solid black; padding: 2px;">14</span>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">2' x 4'</span>		<span style="border: 1px solid black; padding: 2px;">Folding/drywall</span>		<span style="border: 1px solid black; padding: 2px;">12" x 12" Vinyl</span>	
<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	

Ceiling Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Supply Grills Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Return Grills Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Walls Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Supply Duct Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Return Duct Clean	<span style="border: 1px solid black; padding: 2px;">No</span>
Flooring Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Ceiling at Supply Grills Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>		
Room Surfaces Clean	<span style="border: 1px solid black; padding: 2px;">No</span>				

Trash Removed	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working	<span style="border: 1px solid black; padding: 2px;">N/A</span>	Unapproved Chemicals / Cleaners in Room	<span style="border: 1px solid black; padding: 2px;">No</span>
Signs of Pests	<span style="border: 1px solid black; padding: 2px;">No</span>	Drain Traps Wet	<span style="border: 1px solid black; padding: 2px;">N/A</span>	Air Fresheners in Room	<span style="border: 1px solid black; padding: 2px;">No</span>
Room Cluttered	<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers	<span style="border: 1px solid black; padding: 2px;">N/A</span>		

Mechanical Equipment Location	<span style="border: 1px solid black; padding: 2px;">FISH 142A</span>	Mechanical Room Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Filters Installed Properly	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Filters Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Condensate Pan Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Cooling Coil Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
		Inside of HVAC Unit Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>

Fresh Air Intake Location	<span style="border: 1px solid black; padding: 2px;">Roof top</span> ▼	Fresh Air Intake Free of Obstruction	<span style="border: 1px solid black; padding: 2px;">No</span>
Pollutant Sources Near Air Intake	<span style="border: 1px solid black; padding: 2px;">No</span> ▼		

**Observations**

Check the fresh air damper for normal operation due to elevated CO2. Remove storage from the mechanical room (142A).

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**Corrective Actions to be Completed by Site Based Staff**

Thoroughly clean horizontal surfaces	▼
Clean surfaces in mechanical room	▼
and remove storage	▼
	▼
	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Repair HVAC to reduce CO2 level	▼
Clean HVAC return drops	▼
Evaluate fresh damper in the mechanical room	▼
Clean HVAC return duct work in 142A	▼
	▼
	▼
	▼
	▼

