

Aston A. Henry, Supervisor
Risk Management Department

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September 14, 2012

Signature on File

TO: Julie Gittelman, Principal
Plantation Park Elementary School

FROM: Richard Rosa, Project Manager
Facilities Design and Construction

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

On September 7, 2012, I conducted an assessment at **Plantation Park Elementary 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: Directors, School Performance & Accountability
Shelley Meloni, Executive Director, Facilities Design and Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Supervisor, Risk Management
Sonja Coley, Senior Project Manager, Facilities Design and Construction
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

Plantation Park Elementary

Evaluation Date September 7, 2012

Time of Day 2:30

Outdoor Conditions Temperature 83.4

Relative Humidity 80.7

Ambient CO2 422

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
502	74.3	72 - 78	67	30% - 60%	1138	MAX 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		No		No			
2' X 4' Lay in		No		No			
Tackboard		No		No			
Sheet Vinyl		No		No			

Ceiling Clean	<input type="checkbox"/> No	HVAC Supply Grills Clean	<input type="checkbox"/> Yes	HVAC Return Grills Clean	<input type="checkbox"/> Yes
Walls Clean	<input type="checkbox"/> Yes	Inside of Supply Duct Clean	<input type="checkbox"/> No	Inside of Return Duct Clean	<input type="checkbox"/> No
Flooring Clean	<input type="checkbox"/> Yes	Ceiling at Supply Grills Clean	<input type="checkbox"/> No		
Room Surfaces Clean	<input type="checkbox"/> No				

Trash Removed	<input type="checkbox"/> Yes	Exhaust Fans Working	<input type="checkbox"/> Yes	Unapproved Chemicals / Cleaners in Room	<input type="checkbox"/> No
Signs of Pests	<input type="checkbox"/> No	Drain Traps Wet	<input type="checkbox"/> Yes	Air Fresheners in Room	<input type="checkbox"/> No
Room Cluttered	<input type="checkbox"/> Yes	Food if Stored in Room is in Sealed Containers	<input type="checkbox"/> N/A		

Mechanical Equipment Location	FISH 509	Mechanical Room Clean	<input type="checkbox"/> Yes
Filters Installed Properly	<input type="checkbox"/> No	Filters Clean	<input type="checkbox"/> No
Condensate Pan Clean	<input type="checkbox"/> N/A	Cooling Coil Clean	<input type="checkbox"/> N/A
		Inside of HVAC Unit Clean	<input type="checkbox"/> N/A

Fresh Air Intake Location	Through exterior wall	Fresh Air Intake Free of Obstruction	<input type="checkbox"/> Yes
Pollutant Sources Near Air Intake	Sandy playground area		

Observations

HVAC filters need to be changed and the filter cover was on the floor allowing air to bypass the filters.

Corrective Actions to be Completed by Site Based Staff

Clean ceilings around HVAC supply grills	▼
Thoroughly clean elevated surfaces	▼
Encourage occupant to reduce clutter	▼
Install new A/C filters and ensure proper installation	▼
and proper date	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Install filter cover on AHU in FISH 509	▼
Clean HVAC supply drops	▼
Clean HVAC return drops	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Plantation Park Elementary

Evaluation Date September 7, 2012

Time of Day 2:30

Outdoor Conditions Temperature 83.4

Relative Humidity 80.7

Ambient CO2 422

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
504	72.6	72 - 78	68.2	30% - 60%	1010	MAX 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		2' X 4' Lay in		Tackboard		Sheet Vinyl	
No		No		No		No	

Ceiling Clean	<input type="checkbox"/> No	HVAC Supply Grills Clean	<input type="checkbox"/> Yes	HVAC Return Grills Clean	<input type="checkbox"/> No
Walls Clean	<input type="checkbox"/> Yes	Inside of Supply Duct Clean	<input type="checkbox"/> No	Inside of Return Duct Clean	<input type="checkbox"/> No
Flooring Clean	<input type="checkbox"/> Yes	Ceiling at Supply Grills Clean	<input type="checkbox"/> No		
Room Surfaces Clean	<input type="checkbox"/> No				

Trash Removed	<input type="checkbox"/> Yes	Exhaust Fans Working	<input type="checkbox"/> Yes	Unapproved Chemicals / Cleaners in Room	<input type="checkbox"/> No
Signs of Pests	<input type="checkbox"/> Yes	Drain Traps Wet	<input type="checkbox"/> Yes	Air Fresheners in Room	<input type="checkbox"/> No
Room Cluttered	<input type="checkbox"/> Yes	Food if Stored in Room is in Sealed Containers	<input type="checkbox"/> Yes		

Mechanical Equipment Location	FISH 509	Mechanical Room Clean	<input type="checkbox"/> Yes
Filters Installed Properly	<input type="checkbox"/> No	Filters Clean	<input type="checkbox"/> No
Condensate Pan Clean	<input type="checkbox"/> N/A	Cooling Coil Clean	<input type="checkbox"/> N/A
		Inside of HVAC Unit Clean	<input type="checkbox"/> N/A

Fresh Air Intake Location	Through exterior wall	Fresh Air Intake Free of Obstruction	<input type="checkbox"/> Yes
Pollutant Sources Near Air Intake	Sandy playground area		

Observations

Insect and insect debris found on window sills. This is a kindergarten class and cubby holes are used to store students belongings - HVAC filters need to be changed and the filter cover was on the floor allowing air to bypass the filters.

- Corrective Actions to be Completed by Site Based Staff**
- | | |
|--|---|
| Clean ceilings around HVAC supply grills | ▼ |
| Generate a work order for pest control | ▼ |
| Thoroughly clean horizontal surfaces | ▼ |
| Install new A/C filters and ensure proper installation | ▼ |
| and proper date | ▼ |
| Encourage occupant to reduce clutter | ▼ |
| Clean HVAC return grills with Wexcide | ▼ |
| | ▼ |

- Corrective Actions to be Completed by PPO**
- | | |
|---|---|
| Repair HVAC to reduce humidity level | ▼ |
| Install filter cover on AHU in FISH 509 | ▼ |
| Clean HVAC supply drops | ▼ |
| Clean HVAC return drops | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |
| | ▼ |

IAQ Assessment

Plantation Park Elementary

 Evaluation Date

 Time of Day

 Outdoor Conditions Temperature

 Relative Humidity

 Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
<input type="text" value="506"/>	<input type="text" value="72.3"/>	<input type="text" value="72 - 78"/>	<input type="text" value="68.3"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="912"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<input type="text" value="2' X 4' Lay in"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>
Walls	<input type="text" value="Tackboard"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>
Floor	<input type="text" value="Sheet Vinyl"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>
Ceiling Clean		<input type="text" value="No"/>	HVAC Supply Grills Clean		<input type="text" value="Yes"/>	HVAC Return Grills Clean <input type="text" value="Yes"/>	
Walls Clean		<input type="text" value="No"/>	Inside of Supply Duct Clean		<input type="text" value="No"/>	Inside of Return Duct Clean <input type="text" value="No"/>	
Flooring Clean		<input type="text" value="Yes"/>	Ceiling at Supply Grills Clean		<input type="text" value="No"/>		
Room Surfaces Clean		<input type="text" value="No"/>					
Trash Removed		<input type="text" value="Yes"/>	Exhaust Fans Working		<input type="text" value="Yes"/>	Unapproved Chemicals / Cleaners in Room <input type="text" value="No"/>	
Signs of Pests		<input type="text" value="Yes"/>	Drain Traps Wet		<input type="text" value="Yes"/>	Air Fresheners in Room <input type="text" value="No"/>	
Room Cluttered		<input type="text" value="Yes"/>	Food if Stored in Room is in Sealed Containers		<input type="text" value="Yes"/>		
Mechanical Equipment Location			<input type="text" value="FISH 509"/>			Mechanical Room Clean <input type="text" value="Yes"/>	
Filters Installed Properly		<input type="text" value="No"/>	Filters Clean		<input type="text" value="No"/>	Inside of HVAC Unit Clean <input type="text" value="N/A"/>	
Condensate Pan Clean		<input type="text" value="N/A"/>	Cooling Coil Clean		<input type="text" value="N/A"/>		
Fresh Air Intake Location			<input type="text" value="Through exterior wall"/>			Fresh Air Intake Free of Obstruction <input type="text" value="Yes"/>	
Pollutant Sources Near Air Intake			<input type="text" value="Sandy playground area"/>				

Observations

There is wet tackboard under and along the lower portion of the windows. Remove the back splash and the cabinet underneath the windows to assess for additional water damage. Insect and insect debris found in window groove. This is a kindergarten class and cubby holes are used to store students belongings - dust build up in visible. Formica top on sink cabinet is delaminating from the wood due to excess water ponding and spilling. HVAC filters need to be changed and the filter cover was on the floor allowing air to bypass the filters.

Corrective Actions to be Completed by Site Based Staff

Clean ceilings around HVAC supply grills	▼
Generate a work order for pest control	▼
Thoroughly clean horizontal surfaces	▼
Install new A/C filters and ensure proper installation	▼
and proper date	▼
Encourage occupant to reduce clutter	▼
Clean dust from wall surfaces	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of water damage	▼
Remove and replace wall material as necessary	▼
Repair HVAC to reduce humidity level	▼
Clean HVAC supply drops	▼
Clean HVAC return drops	▼
Evaluate and repair water damage	▼
to sink cabinet and counter top	▼
see observations for additional details	▼