

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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November 24, 2015

Signature on File

TO: Paul Micensky, Principal
Tequesta Trace Middle

FROM: Robert Krickovich, Coordinator, LEA
Environmental Health & Safety 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 November 17, 2015, I conducted an assessment at **Tequesta Trace 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 754-321-4200.

cc: Shelley Meloni, Director, Pre-Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Broward Teachers Union
Federation of Public Employees
Gerald Devio, Supervisor II Custodial
Benjamin Osborne, Supervisor II Custodial
Rich Volipi, Supervisor II Custodial
Mark Murray, Supervisor II Custodial
Sam Bays, Director, Maintenance Operations
Kurt Wirz, Area Manager Trades

RK/je
Enc.

IAQ Assessment

Tequesta Trace Middle School

Evaluation Date November 17, 2015

Time of Day 10:30 AM

Outdoor Conditions Temperature 80.7

Relative Humidity 81.3

Ambient CO2 427

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
714	73.3	72 - 78	63.9	30% - 60%	1237	MAX 700 > Ambient	22
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Ceiling		Ceiling		Ceiling	
No		No		No			
Walls		Walls		Walls		Walls	
Plaster		No		No			
Floor		Floor		Floor		Floor	
12" x 12" Vinyl		No		No			
Ceiling Clean		HVAC Supply Grills Clean		HVAC Return Grills Clean			
Yes		Yes		Yes			
Walls Clean		Inside of Supply Duct Clean		Inside of Return Duct Clean			
Yes		Yes		Yes			
Flooring Clean		Ceiling at Supply Grills Clean					
Yes		Yes					
Room Surfaces Clean							
No							
Trash Removed		Exhaust Fans Working		Unapproved Chemicals / Cleaners in Room			
Yes		N/A		No			
Signs of Pests		Drain Traps Wet		Air Fresheners in Room			
No		No		No			
Room Cluttered		Food if Stored in Room is in Sealed Containers					
No		N/A					
Mechanical Equipment Location		Filters Installed Properly		Filters Clean		Mechanical Room Clean	
FISH 730		Yes		Yes		Yes	
Condensate Pan Clean		Cooling Coil Clean		Inside of HVAC Unit Clean			
No		Yes		Yes			
Fresh Air Intake Location		Pollutant Sources Near Air Intake		Fresh Air Intake Free of Obstruction			
Outside of Room		None		Yes			

Observations

Dust on surfaces - Heavy dust on glass wall cabinets - Humidity elevated - CO2 slightly elevated - Sink drain traps dry - spotty microbial growth on back of pull down movie screen.

Mechanical room 730 - Standing water in HVAC drain pan

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean horizontal surfaces	▼
Clean back of movie screen and leave down until completely dry	▼
Run water in sinks and floor drains monthly	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to reduce CO2	▼
Repair HVAC to drain Condensate pan	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Tequesta Trace Middle School

Evaluation Date November 17, 2015

Time of Day 10:30 AM

Outdoor Conditions Temperature 80.7

Relative Humidity 81.3

Ambient CO2 427

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
713	72.7	72 - 78	64.6	30% - 60%	1172	MAX 700 > Ambient	24
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 2' Lay in		No		No		
Walls	Plaster		No		No		
Floor	12" x 12" Vinyl		No		No		
Ceiling Clean	Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		Yes
Walls Clean	Yes	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean		Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean		Yes			
Room Surfaces Clean	No						
Trash Removed	Yes	Exhaust Fans Working		N/A	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests	No	Drain Traps Wet		No	Air Fresheners in Room		No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location	FISH 726					Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters Clean		Yes	Inside of HVAC Unit Clean		Yes
Condensate Pan Clean	No	Cooling Coil Clean		Yes			
Fresh Air Intake Location	Outside of Room ▼					Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None ▼						

Observations

Dust on surfaces - Heavy dust on glass wall cabinets - Sink drain traps dry - Humidity elevated - CO2 slightly elevated -- spotty microbial growth on back of pull down movie screen.

Mechanical room 726 - Standing water in HVAC drain pan

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean horizontal surfaces	▼
Clean back of movie screen and leave down until completely dry	▼
Run water in sinks and floor drains monthly	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to reduce CO2	▼
Repair HVAC to drain Condensate pan	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Tequesta Trace Middle School

Evaluation Date November 17, 2015

Time of Day 10:30 AM

Outdoor Conditions Temperature 80.7

Relative Humidity 81.3

Ambient CO2 427

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
604	66.8	72 - 78	57.8	30% - 60%	559	MAX 700 > Ambient	2
Noticeable Odor		<input type="checkbox"/> Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 2' Lay in		<input type="checkbox"/> No		<input type="checkbox"/> No		
Walls	Plaster		<input type="checkbox"/> Yes		<input type="checkbox"/> No		24 Sq Ft
Floor	12" x 12" Vinyl		<input type="checkbox"/> No		<input type="checkbox"/> No		
Ceiling Clean	<input type="checkbox"/> Yes	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"/> Yes	Inside of Return Duct Clean		<input type="checkbox"/> Yes
Flooring Clean	<input type="checkbox"/> Yes	Ceiling at Supply Grills Clean		<input type="checkbox"/> Yes			
Room Surfaces Clean	<input type="checkbox"/> Yes						
Trash Removed	<input type="checkbox"/> Yes	Exhaust Fans Working		<input type="checkbox"/> N/A	Unapproved Chemicals / Cleaners in Room		<input type="checkbox"/> No
Signs of Pests	<input type="checkbox"/> No	Drain Traps Wet		<input type="checkbox"/> N/A	Air Fresheners in Room		<input type="checkbox"/> No
Room Cluttered	<input type="checkbox"/> No	Food if Stored in Room is in Sealed Containers		<input type="checkbox"/> N/A			
Mechanical Equipment Location	FISH 603					Mechanical Room Clean	<input type="checkbox"/> Yes
Filters Installed Properly	<input type="checkbox"/> Yes	Filters Clean		<input type="checkbox"/> Yes	Inside of HVAC Unit Clean		<input type="checkbox"/> Yes
Condensate Pan Clean	<input type="checkbox"/> No	Cooling Coil Clean		<input type="checkbox"/> No			
Fresh Air Intake Location	Outside of Room ▼					Fresh Air Intake Free of Obstruction	<input type="checkbox"/> Yes
Pollutant Sources Near Air Intake	None ▼						

Observations

Musty odor in room - Room temperature to low - Classroom wall at mechanical room visibly water damaged - Wet at time of assessment 3 feet up from floor entire 8 foot wall.

Mechanical room 603 - Condensate drain on A/C unit clogged - Condensate running out of unit onto floor into classroom wall.

Corrective Actions to be Completed by Site Based Staff

When water damage is noticed call in work order	▼
for repairs	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Set Temperature to 72 - 78 degrees	▼
Repair HVAC in 603 to drain	▼
Remove water damaged wall material in 603 & 604	▼
Replace water damaged wall material in 603 & 604	▼
	▼
	▼
	▼
	▼

IAQ Assessment

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Outdoor Conditions Temperature 80.7

Relative Humidity 81.3

Ambient CO2 427

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
007B		72 - 78		30% - 60%		MAX 700 > Ambient	2
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 2' Lay in		No		No		
Walls	Plaster		Yes		No		64 square feet
Floor	12" x 12" Vinyl		No		No		

Ceiling Clean	<input type="checkbox"/>	HVAC Supply Grills Clean	<input type="checkbox"/>	HVAC Return Grills Clean	<input type="checkbox"/>
Walls Clean	<input type="checkbox"/>	Inside of Supply Duct Clean	<input type="checkbox"/>	Inside of Return Duct Clean	<input type="checkbox"/>
Flooring Clean	<input type="checkbox"/>	Ceiling at Supply Grills Clean	<input type="checkbox"/>		
Room Surfaces Clean	<input type="checkbox"/>				

Trash Removed	<input type="checkbox"/>	Exhaust Fans Working	<input type="checkbox"/>	Unapproved Chemicals / Cleaners in Room	<input type="checkbox"/>
Signs of Pests	<input type="checkbox"/>	Drain Traps Wet	<input type="checkbox"/>	Air Fresheners in Room	<input type="checkbox"/>
Room Cluttered	<input type="checkbox"/>	Food if Stored in Room is in Sealed Containers	<input type="checkbox"/>		

Mechanical Equipment Location	Unknown		Mechanical Room Clean	N/A	
Filters Installed Properly	N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A		

Fresh Air Intake Location	 ▼	Fresh Air Intake Free of Obstruction	<input type="checkbox"/>
Pollutant Sources Near Air Intake	 ▼		

Observations

Corridor 007B backs up to sink cabinet in 719 - Wall visibly water damaged 4 feet high by 16 feet long - AP stated it was repaired recently - Wall wet at time of assessment - PPO to remove water damaged wall in 007B - remove sink cabinets in 719 - remove water damaged wall behind sink cabinets - repair cause of water damage - Replace all water damaged wall material as needed.

Doors to classrooms blocked open at times allowing unconditioned humid air into rooms in building. Entire building has elevated humidity - keep doors closed and repair HVAC to reduce humidity in building.

Corrective Actions to be Completed by Site Based Staff

Ensure all outside doors remain closed at all times	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of water damaged	▼
wall material	▼
Remove and replace wall material as needed	▼
	▼
Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to reduce CO2	▼
Repair HVAC to drain Condensate pan	▼
In entire building 10	▼