RISK
MANAGEMENT…

managing risk with responsibility

Aston A. Henry, Director
Risk Management Department

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October 21, 2014 Signature on File

For Custodial Supervisor Use Only

☐ Custodial Issues Addressed

☐ Custodial Issues Not Addressed

_____

_____

TO: Trevor Roberts, Principal
Sawgrass Elementary School

FROM: Richard Rosa, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

On October 20, 2014, I conducted an assessment at **Sawgrass 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: Shelley Meloni, Executive Director, 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

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 11:30

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
860	74.1	72 - 78	48.3	30% - 60%	1363	MAX 700 > Ambient	25

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	Yes	No	1 tile < 6 sq inches
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Outside this classroom in the corridor is an active ceiling stain, the leak appears to be from a condensate pan above the drop ceiling. Recommend to evaluate blowing out the drain line. Ceiling tile stain in classroom is the size of a tea cup. Bug droppings are visible on the wall adjacent to the HVAC unit. Viewing the inside of the HVAC unit is not readily accessible. Adjusted the Humidistat to 50 %.

Corrective Actions to be Completed by Site Based Staff

- Replace stained ceiling tiles after repairs
- Thoroughly clean horizontal surfaces
- Vacuum/wipe return grill
- Monitor insects by HVAC unit and treat if necessary

Corrective Actions to be Completed by PPO

- Evaluate and repair cause of stained ceiling tiles
- Repair HVAC to reduce humidity level
- See observations for additional information

IAQ Assessment

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 12:00

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
861	73.7	72 - 78	49.7	30% - 60%	2048	MAX 700 > Ambient	23

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Viewing the inside of the HVAC unit is not readily accessible. Adjusted the Humidistat to 50 %.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Thoroughly clean horizontal surfaces	Repair HVAC to reduce humidity level
Vacuum/wipe return grill	

IAQ Assessment

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 12:15

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
862	75.3	72 - 78	50.3	30% - 60%	1553	MAX 700 > Ambient	23

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Viewing the inside of the HVAC unit is not readily accessible. Adjusted the Humidistat to 50 %.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Thoroughly clean horizontal surfaces	Repair HVAC to reduce humidity level
Vacuum/wipe return grill	

IAQ Assessment

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 12:45

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
863	73.2	72 - 78	47.0	30% - 60%	2100	MAX 700 > Ambient	26

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	No				

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

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Viewing the inside of the HVAC unit is not readily accessible. THe humidistat is locked at 60 %, adjust to 50 %.

Corrective Actions to be Completed by Site Based Staff

- Adjust Humidistat to 50%
- Thoroughly clean horizontal surfaces
- Vacuum/wipe return grill

Corrective Actions to be Completed by PPO

- Repair HVAC to reduce humidity level

IAQ Assessment

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 1:15

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
880	73.5	72 - 78	53.1	30% - 60%	693	MAX 700 > Ambient	26

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	Yes	No	5 ceiling stains
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	No	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Viewing the inside of the HVAC unit is not readily accessible. Evaluate and repair roofing and also evaluate the fire sprinkler system for possible leaks. Also outside the classroom in the corridor there is an active leak, once again it could be from the condensate pan, evaluate blowing out the drain line.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Replace stained ceiling tiles after repairs	Evaluate and repair cause of stained ceiling tiles
Thoroughly clean horizontal surfaces	
Vacuum/wipe return grill	
	See observations for additional information

IAQ Assessment

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 1:30

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
883	71.7	72 - 78	49.7	30% - 60%	1085	MAX 700 > Ambient	26

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Viewing the inside of the HVAC unit is not readily accessible. I adjusted the humidistat to 50%.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Thoroughly clean horizontal surfaces	
Vacuum/wipe return grill	

IAQ Assessment

Sawgrass Elementary | Evaluation Date: October 20, 2014 | Time of Day: 1:45

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 42.8 | Ambient CO2: 411

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
893	75.2	72 - 78	50.5	30% - 60%	1207	MAX 700 > Ambient	25

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
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	N/A	Air Fresheners in Room	No
Room Cluttered	Yes	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	In classroom HVAC unit			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Condensate drain runoff		

Observations

Viewing the inside of the HVAC unit is not readily accessible. I adjusted the humidistat to 50%.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Thoroughly clean horizontal surfaces	
Vacuum/wipe return grill	
Encourage occupant to reduce clutter and	
coordinate a schedule with HFSP for cleaning	