

managing risk with responsibility

Aston A. Henry, Director
Risk Management Department

 Telephone:
 754 321-1900

 Fax:
 754 321-1917

July 11, 2013	Signature on File	For Custodial Supervisor Use Only
TO:	Sherry Rose, Principal Sawgrass Elementary School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Richard Rosa, Project Manager Risk Management Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On July 9, 2013, 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, 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 Assess	ment		
Sawgrass	Elementary Evaluation Da	te July 9, 2013	Time of Day 12	2:30
Outdoor Conditions Tempera	ature 90.5 Relative	e Humidity 79.2	Ambient CO2 43	33
		Range         CO <sup>2</sup> 0% - 60%         440		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	No	No		
Walls Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	N/A		
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	Bard like HVAC system in cla	Issroom	Mechanical Room Clean	n/a
Filters Installed Properly Yes	s Filters Clean	Νο	Inside of HVAC Unit Clean	No
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Behind Bard unit/Exterior wa	II V	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Grass and landscape	▼	of Obstruction	
Observations				
The humidistat is located inside	HVAC unit behind the return g	Jrill. I removed the grill	and adjusted the humidis	tat from
65% to 50%. N/A not accessible				
n/a not applicable				

Remove and vacuum return grill	▼
Remove return grill and clean w/wexcide	▼
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	IAQ Assess	ment		
Sawgrass	Elementary Evaluation Da	ate July 9, 2013	Time of Day	1:00
Outdoor Conditions Tempera	ture 90.5 Relativ	e Humidity 79.2	Ambient CO2 4	133
	nge Relative Humidity - 78 51.9 30	Range         CO           0% - 60%         436		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling     2' x 4'       Walls     Drywall       Floor     12" x 12" Vinyl	No No	No No No		
Ceiling CleanYesWalls CleanNoFlooring CleanYesRoom SurfacesYesCleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	No No
Trash RemovedYesSigns of PestsYesRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	No N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean N/A	_	No N/A	Mechanical Room Clean Inside of HVAC Unit Clean	n/a No
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wa Grass and landscape	all 🔻	Fresh Air Intake Free of Obstruction	Yes
Observations				
The humidistat is located inside 65% to 50%. N/A not accessiblen/a not app		grill. I removed the gril	I and adjusted the humidis	stat from

There is a wall stain from what appears to be bug droppings. I advised the HFSP to wipe down the wall. The stain is located adjacent to the restroom door 7' above finished floor.

Corrective Actions to be Completed by Site Based Staff

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	IAQ Assess	ment		
Sawgras	ss Elementary Evaluation Dat	te July 9, 2013	Time of Day	1:15
Outdoor Conditions Tempe	erature 90.5 Relative	e Humidity 79.2	Ambient CO2 4	33
		Range CO % - 60% 444		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	No	No		
Walls Drywall	N/A	N/A		
Floor 12" x 12" Vinyl	N/A	N/A		
Ceiling Clean Yes Walls Clean N/a Flooring Clean N/a Room Surfaces N/a Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	N/a N/A	HVAC Return Grills Clean Inside of Return Duct Clean	N/a N/A
Trash Removed N/A Signs of Pests N/A	Exhaust Fans Working Drain Traps Wet	N/A N/A	Unapproved Chemicals / Cleaners in Room	N/A
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	N/A
Mechanical Equipment Location	n Bard like HVAC system in cla	ssroom	Mechanical Room Clean	n/a
Filters Installed Properly	/A Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean	/A Cooling Coil Clean	N/A		
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wal Grass and landscape	II <b>v</b>	Fresh Air Intake Free of Obstruction	Yes
Observations				
	to store classroom furniture unti	l cleaning has been cr	ompleted in other areas. O	ne
	alone assess it. Based on the hu			

behind the return grill to 50% and summer clean the classroom and monitor.

Corrective Actions to be Completed by Site Based Staff

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	IAQ Assess	ment		
Sawgrass	Elementary Evaluation Da	ate July 9, 2013	Time of Day 1	:30
Outdoor Conditions Tempera	ature 90.5 Relative	e Humidity 79.2	Ambient CO2 43	33
	ange Relative Humidity - 78 36.5 30	Range         CO           0% - 60%         436		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	No   No   No	No No No		
Ceiling CleanYesWalls CleanYesFlooring CleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean	Yes	HVAC Return Grills Clean Inside of Return Duct Clean	No
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean N/A	-	No N/A	Mechanical Room Clean Inside of HVAC Unit Clean	n/a No
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wa Grass and landscape	ll ▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
N/A not accessible n/a not app	licable			

Corrective Actions to be Completed by Site Based Staff

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Sawgrass	Elementary Evaluation Dat	July 9, 2013	Time of Day 1	:45
Outdoor Conditions Tempera	ature 90.5 Relative	e Humidity 79.2	Ambient CO2 43	33
		Range         CO <sup>2</sup> % - 60%         457		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	No	No		
Walls Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	N/A	Air Fresheners	No
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	in Room	
Mechanical Equipment Location	Bard like HVAC system in clas	ssroom	Mechanical Room Clean	n/a
Filters Installed Properly Yes	s Filters Clean	Νο	Inside of HVAC Unit Clean	No
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Behind Bard unit/Exterior wal	I V	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Grass and landscape	▼	0.000110000	
Observations				
The humidistat is located inside	HVAC unit behind the return g	rill. I removed the grill	and adjusted the humidis	tat from
70% to 50%. N/A not accessiblen/a not app				
The HVAC is not working prope		ame out and hasn't ref	urned to finish work.	

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Remove and vacuum return grill	▼
Remove return grill and clean w/wexcide	▼
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Set temperature to 72 - 78 degrees	▼
Repair HVAC to reduce humidity level	▼
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	IAQ Assess	sment		
Sawgrass	s Elementary Evaluation Da	ate July 9, 2013	Time of Day	2:00
Outdoor Conditions Temper	rature 90.5 Relativ	ve Humidity 79.2	Ambient CO2 43	33
	RangeRelative Humidity2 - 7869.230	Range         CO           0% - 60%         450		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	No Yes No	No No	32 sq ft	
Ceiling Clean Yes Walls Clean No Flooring Clean Yes	HVAC Supply Grills Clean Inside of Supply Duct Clean	Yes	HVAC Return Grills Clean Inside of Return Duct Clean	No
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No
Mechanical Equipment Location		assroom No	Mechanical Room Clean Inside of HVAC Unit Clean	n/a No
Condensate Pan Clean				
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wa Grass and landscape	all ▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
The humidistat is located inside N/A not accessiblen/a not ap		grill. I couldn't remove	the grill, different screws.	

The HVAC system must be operational for the restroom exhaust fan to work properly. Water damage inside restroom on wall. The water damage appears to be coming from the roof.

Corrective Actions to be Completed by Site Based Staff

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Remove and vacuum return grill	▼
Remove return grill and clean w/wexcide	▼
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Set temperature to 72 - 78 degrees	▼
Repair HVAC to reduce humidity level	▼
Adjust Humidistat to 50%	▼
Evaluate and repair cause of water damage	▼
Remove and replace wall material as necessary	▼
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See observations for additional info	▼
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	IAQ Assess	ment		
Sawgrass	Elementary Evaluation Dat	te July 9, 2013	Time of Day	2:15
Outdoor Conditions Temper	ature 90.5 Relative	e Humidity 79.2	Ambient CO2 4	33
		Range         CO <sup>2</sup> % - 60%         434	Range # Oc MAX 700 > Ambient	cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	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 CleanNoFlooring CleanYes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	No	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	Bard like HVAC system in clas	ssroom	Mechanical Room Clean	n/a
Filters Installed Properly Yes	s Filters Clean	Νο	Inside of HVAC Unit Clean	No
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Behind Bard unit/Exterior wal	II V	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Grass and landscape	▼		
Observations				
The humidistat is located inside	HVAC unit behind the return g	rill. I adjusted the humi	idistat from 65% to 50%.	
N/A not accessible n/a not app	olicable			
There appears to be insect drop	pings on the restroom wall.			

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	IAQ Assess	sment		
Sawgrass	Elementary Evaluation Da	ate July 9, 2013	Time of Day 2	2:30
Outdoor Conditions Tempera	ature 90.5 Relativ	e Humidity 79.2	Ambient CO2 43	33
	ange Relative Humidity - 78 63.1 30	Range         CO <sup>2</sup> 0% - 60%         459		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' x 4'WallsDrywallFloor12" x 12" Vinyl	No   No   No	No No		
Ceiling Clean Yes Walls Clean No	HVAC Supply Grills Clean Inside of Supply	Yes	HVAC Return Grills Clean Inside of Return	No
Flooring Clean Yes Room Surfaces Yes Clean	Duct Clean Ceiling at Supply Grills Clean	Yes	Duct Clean	
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	Bard like HVAC system in cla	assroom	Mechanical Room Clean	n/a
Filters Installed Properly Yes	-	Νο	Inside of HVAC Unit Clean	No
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location	Behind Bard unit/Exterior wa	all 🔻	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Grass and landscape	▼		
Observations				
The humidistat is located inside cluttered to remove the grill and N/A not accessible n/a not app	adjust the humidistat.	grill. The area adjacent	to the return grill was too	

Remove and vacuum return grill	▼
Remove return grill and clean w/wexcide	▼
Adjust Humidistat to 50%	▼
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