

# managing risk with responsibility

Aston A. Her	ry, Director	Telephone:	754 321-1900
Risk Management Department		Fax:	754 321-1917
July 14, 2014	Signature on File	For Custodial S	upervisor Use Only
TO:	JoAnne Seltzer, Principal Riverglades Elementary School		ues Addressed ues Not Addressed
FROM:	Dan Meyer, Project Manager Risk Management Department		
SUBIECT:	Indoor Air Quality (IAQ) Assessment	-	

On July 9 and 10, 2014, I conducted an assessment at **Riverglades 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

DM/tc Enc.

Riverglades Elementary	Evaluation Da	te July 9, 2014	Time of Day 1	:00
Outdoor Conditions Temperature 90.7	Z Relative	e Humidity 68.7	Ambient CO2 43	35
Fish         Temperature         Range         Relation           213         70.6         72 - 78		Range <u>CO</u> % - 60% 560		cupants 1
Noticeable each The	water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in  Walls Drywall	No Yes	No No		
Floor 12" x 12" Vinyl				
12 x 12 viiiyi	No	No		
	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
	Ceiling at Supply Grills Clean	Yes		
	ust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
1100iii Giattoroa	Drain Traps Wet Stored in Room is d Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location FISH #206  Filters Installed Properly Yes	Filters Clean	No	Mechanical Room Clean Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes C	ooling Coil Clean	Yes		
Fresh Air Intake Location  Pollutant Sources Near Air Intake  No	exterior mechanio	cal room door ▼	Fresh Air Intake Free of Obstruction	No
Observations				
Weather stripping on the exterior door needs water intrusion. Back splash by sink has wate AHU Room Fish #206 - drain line was backed air needs to be checked for restriction.	er damage and ne	eds to be removed an	d checked for microbial gr	owth.
Corrective Actions to be Completed by Site E	Sased Staff	Corrective Action	ons to be Completed by PP	0
	<b></b>		rior door weather stripping	
	▼		window caulking air cause of water damage	▼
	<del>    •</del>		e wall material as necessa	-
	▼		m drywall for water damag	
	▼	Clean co	ndensate drain line	▼
	▼		ne fresh air dampers	▼
	▼	See observations	for additional information	▼

**Evaluation Date** 

Riverglades Elementary

July 9, 2014

Time of Day

1:00

Outdoor Conditions Tempera	ture 90.7 Rel	ative Humidity	68.7	Ambient CO2 43	35
	nge Relative Humidity - 78 53.8	Range 30% - 60%	<b>CO</b> <sup>2</sup> 500		cupants
Noticeable Odor No	Visible water damage staining?	/ Visible mi growt		Amount of material affected	
Ceiling 2' X 4' Lay in	Yes	No	]	1 Tile	
Walls Drywall  Floor 12" x 12" Vinyl	No No	No No	_		
Ceiling Clean Yes	HVAC Supply Grills Clean	Yes		HVAC Return Grills Clean	Yes
Walls Clean Yes Flooring Clean Yes	Inside of Supp Duct Clean	ly Yes		Inside of Return Duct Clean	Yes
Room Surfaces Yes Clean	Ceiling at Sup Grills Clean	Yes			
Trash Removed Yes	Exhaust Fans Worki	ng N/A		Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No  Room Cluttered No	Drain Traps V Food if Stored in Roor in Sealed Containers			Air Fresheners in Room	No
Mechanical Equipment Location				Mechanical Room Clean	
Filters Installed Properly  Condensate Pan Clean	Filters Clea			Inside of HVAC Unit Clean	
Fresh Air Intake Location Pollutant Sources Near Air Intake			▼	Fresh Air Intake Free of Obstruction	
Observations					
Room was recently Summer clea	ned. Found one water sta	ned tile.			
Corrective Actions to be Compl	atad by Sita Pasad Staff	0.000	Alica A =41 -	ma ta ha Camulatad ku DD	0
Corrective Actions to be Compl Replace stained ceiling t				ns to be Completed by PP cause of stained ceiling til	
	▼				▼
	▼				▼
	▼				▼
	▼				▼
	▼				▼

Riverglades Elementary E	valuation Da	te July 9	, 2014	Time of Day	1:00
Outdoor Conditions Temperature 90.7	Relative	Humidity	68.7	Ambient CO2	435
Fish         Temperature         Range         Relative H           219         70.3         72 - 78         53.8		Range % - 60%	<b>CO</b> <sup>2</sup> 500	Range # MAX 700 > Ambient	Occupants 1
Noticeable Odor No Visible water staining		Visible mi growt		Amount of material affected	
Ceiling 2' X 4' Lay in No		No			
Walls Drywall Yes	]	No		2 Sq. ft.	
Floor 12" x 12" Vinyl No		No			
Grills Walls Clean Yes		Yes		HVAC Return Grills Clean	Yes
Flooring Clean Yes Inside	of Supply Clean	Yes		Inside of Return Duct Clean	Yes
	g at Supply Clean	Yes			
Trash Removed Yes Exhaust Fall Signs of Pests No Drain	ns Working n Traps Wet	N/A		Unapproved Chemicals Cleaners in Room	/ No
Room Cluttered No Food if Stored in Sealed Con	d in Room is	N/A		Air Fresheners in Room	No
Mechanical Equipment Location				Mechanical Room Clear	,
Filters Installed Properly	ilters Clean		1	Inside of HVAC Unit Clea	n
Condensate Pan Clean Cooling	Coil Clean				
Fresh Air Intake Location			▼	Fresh Air Intake Free of Obstruction	•
Pollutant Sources Near Air Intake			▼	or observation	
Observations					
Room was recently Summer cleaned. Window cran windows on the East wall.	ks are brok	en and need t	to be repai	red. Water damage und	der the
Compating Astions to be Computed the City D.	Chaff				
Corrective Actions to be Completed by Site Based	Start ▼ [			ns to be Completed by air windows on East wa	
	▼			ater damage under wir	ndows 🔻
	▼				▼
	<del>                                     </del>				-   ▼
	▼				▼
	<b>▼</b>				
					▼

Riverglades Elementary	Evaluation Date	July 10, 2014	Time of Day 1	1:00
Outdoor Conditions Temperature 8	7.6 Relative I	Humidity 63.8	Ambient CO2 43	35
Fish         Temperature         Range         F           317         73.5         72 - 78		ange <u>CO²</u> - 60%	Range # Oc MAX 700 > Ambient	ccupants
Noticeable Odor Yes Vision  Ceiling 2' X 4' Lay in  Walls Drywall  Floor 12" x 12" Vinyl	ble water damage / staining?  No  No  No	Visible microbial growth?  No  No  No	Amount of material affected	
Ceiling Clean Yes Walls Clean Yes Flooring Clean Yes Room Surfaces Yes Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Signs of Pests No Room Cluttered No Food	Drain Traps Wet If Stored in Room is caled Containers	Yes Yes N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location  Filters Installed Properly  Condensate Pan Clean	Filters Clean Cooling Coil Clean	lr	Mechanical Room Clean	
Fresh Air Intake Location  Pollutant Sources Near Air Intake		▼	Fresh Air Intake Free of Obstruction	
Observations Adult bathroom. Clean sink drain and chec	k toilet o-ring (toilet w	vas replaced). Smell of	sewer gas.	
Corrective Actions to be Completed by Sit	e Based Staff  ▼		s to be Completed by PP sink drain	•o  ▼
	V V	Check	toilet o-ring	▼ ▼
	V   V			▼ ▼
	<b>V</b>			<b>*</b>

Riverglades El	ementary Evaluation Date	e July 10, 2014	Time of Day 1	1:00
Outdoor Conditions Temperatu	re 87.6 Relative	Humidity 63.8	Ambient CO2 4	35
Fish         Temperature         Range           230         71.9         72 - 12		Range <u>CO</u> <sup>2</sup> % - 60%		ccupants 2
Noticeable Odor Yes  Ceiling 2' X 4' Lay in	Visible water damage / staining? Yes	Visible microbial growth?	Amount of material affected 2 Tiles	
Walls Drywall Floor 12" x 12" Vinyl	No No	No No		
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No  Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes N/A	Air Fresheners in Room	No
Mechanical Equipment Location	FISH #223		Mechanical Room Clean	Yes
Filters Installed Properly No	Filters Clean	No	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	Yes		
_	Ducted to roof-top	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	NA .	▼		
Observations				
2 live plants with microbial growth off). 2 ceiling tiles have water stai needs to be checked for possible	ns and are wet (1 tile in teach	er storage room) - roo	of drain is leaking. Window	v wall

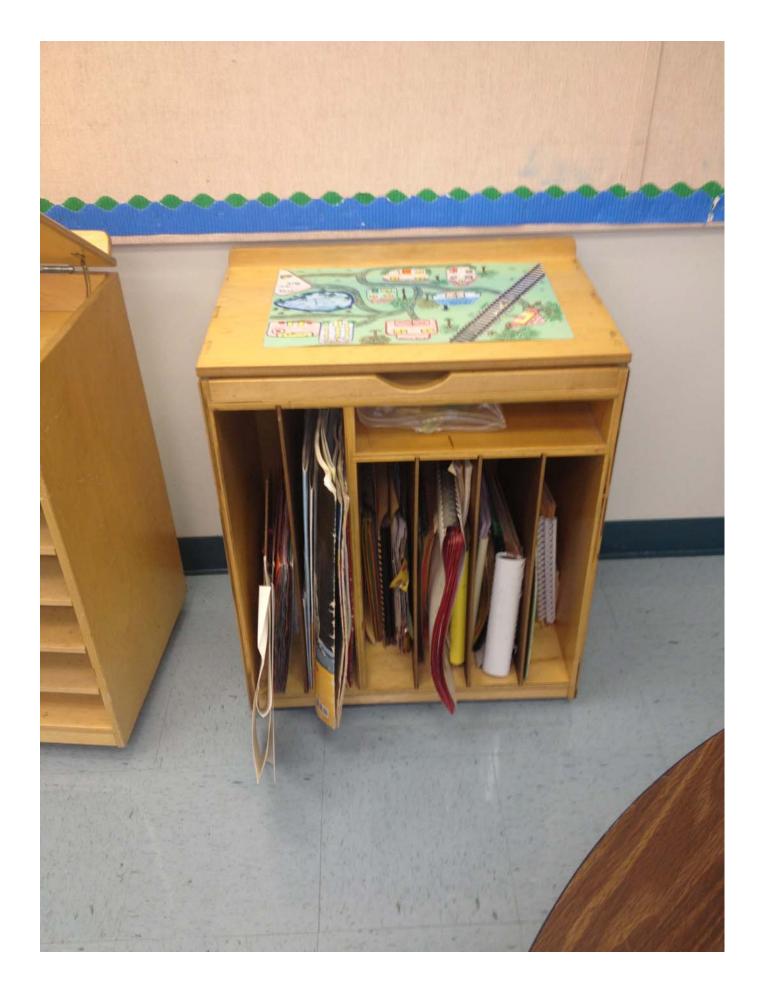
removed and cleaned - microbial growth on contents and wood.

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

an
▼
▼
▼
▼
▼
▼
▼
▼

#### **Corrective Actions to be Completed by PPO**

▼
▼
▼
▼
▼
▼
▼
▼



Riverglades Elementary Evaluation Date July 9, 2014 Time of Day 1:00				
Outdoor Conditions Temperature 90.7 Relative Humidity 68.7 Ambient CO2 435	]			
Fish         Temperature         Range         Relative Humidity         Range         CO²         Range         # Occupa           333         70.3         72 - 78         53.8         30% - 60%         500         MAX 700 > Ambient         1	ants			
Noticeable Odor No Visible water damage / staining?	_			
Room Surfaces Yes Ceiling at Supply Grills Clean Yes				
Trash Removed Yes Exhaust Fans Working N/A Unapproved Chemicals / Cleaners in Room  Signs of Pests No Drain Traps Wet N/A  Room Cluttered No Food if Stored in Room is in Sealed Containers N/A  Unapproved Chemicals / Cleaners in Room  No N	<u> </u>			
Mechanical Equipment Location FISH #331 Mechanical Room Clean Ye Filters Installed Properly No Filters Clean No Inside of HVAC Unit Clean Ye Condensate Pan Clean Yes Cooling Coil Clean Yes	二 I			
Fresh Air Intake Location  Pollutant Sources Near Air Intake  NA  Presh Air Intake Free of Obstruction  Ye	es .			
Observations  Room was recently Summer cleaned. Window cranks are broken and need to be repaired. Water damaged ceiling til in the S.W. corner of the classroom.	le			
Corrective Actions to be Completed by Site Based Staff  Filters to be replaced, taped and dated properly  ▼  Evaluate and repair windows  ▼  Evaluate and repair cause of stained ceiling tiles  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼  ▼				

See observations for additional information

Riverglades Elementary Evaluation Date July 9, 2014	Time of Day 1:00
Outdoor Conditions Temperature 90.7 Relative Humidity 68.7	Ambient CO2 435
	Range # Occupants  MAX 700 > 1  Ambient
Noticeable Odor Yes Visible water damage / staining? Visible microbial growth?  Ceiling 2' X 4' Lay in No No No No Floor Carpet No	Amount of material affected
Ceiling Clean Yes HVAC Supply Grills Clean Yes  Walls Clean Yes Inside of Supply Duct Clean Yes  Room Surfaces Yes Ceiling at Supply Grills Clean Yes	HVAC Return Grills Clean  Inside of Return Duct Clean  Yes
Trash Removed Yes Exhaust Fans Working N/A  Signs of Pests No Drain Traps Wet N/A  Room Cluttered No Food if Stored in Room is in Sealed Containers	Unapproved Chemicals / No Cleaners in Room  Air Fresheners in Room
Mechanical Equipment Location FISH #403  Filters Installed Properly Yes Filters Clean No  Condensate Pan Clean Yes Cooling Coil Clean Yes	Mechanical Room Clean Yes Inside of HVAC Unit Clean Yes
Fresh Air Intake Location  Pollutant Sources Near Air Intake  Over top of exterior mechanical room door  No  ■	of Obstruction Yes
Observations 401F exhaust fan in custodian closet was being worked on (fan was removed). Slig Return air grill needs to be cleaned. Filters in the AHU need to be changed / taped removed from return air opening in AHU Room.	
Thoroughly clean elevated surfaces ▼ Repa	etions to be Completed by PPO ir fan in FISH #401F

Thoroughly clean elevated surfaces	▼
Clean HVAC return grills with Wexcide	▼
Remove and replace A/C filters	▼
Tape and date HVAC filters	▼
	▼
	•
	▼
	▼

Repair fan in FISH #401F	▼
Evaluate the return air opening in Mech. Room	▼
	▼
	▼
	▼
	▼
	▼
	▼