

managing risk with responsibility

Aston A. He	nry, Director	Telephone:	754 321-1900
Risk Manage	ement Department	Fax:	754 321-1917
August 8, 20	13 Signature on File	For Custodial S	upervisor Use Only
TO:	Mary Lou Ridge, Principal Bethune Elementary School		ues Addressed ues Not Addressed
FROM:	Richard Rosa, Project Manager Risk Management Department		
SUBJECT:	Indoor Air Quality (IAQ) Assessment	-	

On August 6, 2013, I conducted an assessment at Bethune 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.

Shelley Meloni, Task Assigned Chief Facilities & Construction Officer, Facilities & Construction cc: 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.

	Bethune Eleme	ntary Evaluati	on Date Augu	st 6, 2013	Time of Day	2:00
Outdoor Conditions	Temperature	89.7 Re	elative Humidity	64.7	Ambient CO2 4	28
Fish Temperate 1004 70.4		Relative Humidit 53.8	y Range] 30% - 60%	CO ² 450	Range # O MAX 700 > Ambient	ccupants
Noticeable Odor	No	Visible water damage staining?	101	microbial wth?	Amount of material affected	
Ceiling 2' x 2'		No	_	lo		
Walls Drywa		No No	<u>N</u>	lo_		
Floor 12" x 12" \	/inyl	No	N	lo		
	es	HVAC Supply Grills Clean	Yes		HVAC Return Grills Clean	Yes
	es	Inside of Sup Duct Clean	yes		Inside of Return Duct Clean	Yes
Room Surfaces Ye	es	Ceiling at Su Grills Clean	pply Yes			
	es	Exhaust Fans Wor			Unapproved Chemicals / Cleaners in Room	No
	lo	Drain Traps			Air Fresheners	No
Room Cluttered N		Food if Stored in Rooin Sealed Containers	I NI/A I		in Room	
Mechanical Equipment I	Location FISH	1013			Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters C	lean Yes		Inside of HVAC Unit Clean	Yes
Condensate Pan Clea	n Yes	Cooling Coil C	lean Yes			
Fresh Air Intake Location	Thru	exterior wall		▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near A Intake	Air No			▼	or obstruction	
Observations						
AHU 10-1						
Corrective Actions to b	e Completed by	y Site Based Staff			ns to be Completed by Pi	PO
		▼			ure to 72 - 78 degrees filter spacer in HVAC un	it ▼
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August 6, 2013

Time of Day

2:00

Evaluation Date

Bethune Elementary

Outdoor Conditions	Tempera	ature 89	0.7	Relative	Humidity	64.7	Ar	mbient CO2	428
		inge Ro	elative Hum 53.5	i	Range % - 60%	44		Range # MAX 700 > Ambient	Occupants
Noticeable Odor	No	Visib	le water dar staining?	mage /	Visible n grov			Amount of material affected	I
	x 2']	No		N	_			
	wall 2" Vinyl]	No		N.	_			
			<u> NO</u>			<u> </u>			
Ceiling Clean	Yes		HVAC Sup Grills Clea		Yes			HVAC Return Grills Clean	Yes
Walls Clean Flooring Clean	Yes		Inside of S		Yes			Inside of Return Duct Clean	Yes
Room Surfaces Clean	Yes		Ceiling at Grills Clea		Yes				
Trash Removed	Yes	Exh	aust Fans V	Working	Yes			roved Chemicals	No No
Signs of Pests	No		Drain Tr	-	N/A		Air F	resheners	No
Room Cluttered	No		if Stored in lled Contain		N/A		in Ro	oom	
Mechanical Equipme	nt Location	FISH 1013					Mecha	nical Room Clea	n Yes
Filters Installed Prope	erly Yes	3	Filters	s Clean	Yes		Inside of	HVAC Unit Clea	n Yes
Condensate Pan C	lean Yes	:	Cooling Co	il Clean	Yes				
Fresh Air Intake Locat	tion	Thru exter	ior wall			▼		sh Air Intake Free	Yes
Pollutant Sources Nea	ar Air	No				▼	OI C	bstruction	
Observations									
AHU 10-1									
Corrective Actions t	o be Compl	eted by Site	Based Sta	aff	Corre	ective Acti	ons to be	Completed by	PPO
				▼				- 78 degrees acer in HVAC ι	ınit ▼
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Bethune Elem	entary Evaluation Da	August 6, 2013	Time of Day2	2:00
Outdoor Conditions Temperature	89.7 Relativ	e Humidity 64.7	Ambient CO2 4	28
Fish Temperature Range 1026 73. 72 - 78	Relative Humidity 60.0 30	Range CO ² 0% - 60% 462	Range # Oo MAX 700 > Ambient	ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 2'	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	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	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	INO
Mechanical Equipment Location FIS	H 1027A		Mechanical Room Clean	Yes
Filters Installed Properly Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	Yes		
Fresh Air Intake Location Thr	u exterior wall	▼	Fresh Air Intake Free	Yes
Pollutant Sources Near Air Intake		▼	of Obstruction	
Observations				
Slightly elevated humidity, schools s classrooms on the second floor. Chil AHU 10-2 Allow area rugs to thoroughly dry ou	led water return was 60 d	legrees and chilled water		
One and the Antique to be Original to be	hu Cita Basa I Ctaff			
Ensure area rugs are thoroughly			ns to be Completed by PF o reduce humidity level	.o.

Corrective Actions to be completed by the Based of	
Ensure area rugs are thoroughly dry before	▼
returning to room	▼
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	Bethune Eleme	entary Eval	uation Date	August	t 6, 2013	Time of Day	2:00
Outdoor Conditions	Temperature	89.7	Relative	Humidity [64.7	Ambient CO2	428
Fish Temper 1029 73		Relative Hum	i	ange 5 - 60%	CO ² 445	Range # MAX 700 > Ambient	Occupants
Noticeable Odor	No	Visible water dan staining?		Visible mi grow		Amount of material affected	
Ceiling 2' x	2'	No		No			
Walls Dryv	vall	No		No			
Floor 12" x 12	" Vinyl	No		No			
Ceiling Clean	Yes	HVAC Su Grills Cle		Yes		HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of				Inside of Return	
Flooring Clean	Yes	Duct Clea		Yes		Duct Clean	Yes
Room Surfaces Clean	Yes	Ceiling at Grills Cle		Yes			
Trash Removed	Yes	Exhaust Fans \	Working	Yes		Unapproved Chemicals Cleaners in Room	No No
Signs of Pests	No	Drain Tr	aps Wet	N/A		Air Fresheners	No
Room Cluttered	No	Food if Stored in in Sealed Contain		N/A		in Room	No
Mechanical Equipmer	nt Location FISH	1027A				Mechanical Room Clear	n Yes
Filters Installed Proper	rly Yes	Filter	s Clean	Yes		Inside of HVAC Unit Clea	n Yes
Condensate Pan Cl	ean Yes	Cooling Co	il Clean	Yes			
Fresh Air Intake Locati		exterior wall			▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Nea Intake	r Air No				▼		
Observations							
						desks and contents in t er supply was 47 degre	
Allow area rugs to the	proughly dry out	due to the eleva	ted humid	lity.			
Corrective Actions to	be Completed b	y Site Based Sta	aff	Correc	tive Action	ns to be Completed by	PPO
Ensure area rug	s are thoroughly	dry before	▼ [reduce humidity level	▼
retu	ırnina to room		l▼l □	Install a	ppropriate	filter spacer in HVAC u	ınit ▼

Ensure area rugs are thoroughly dry before	▼
returning to room	▼
	▼
	▼
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	▼

Repair HVAC to reduce humidity level	▼
Install appropriate filter spacer in HVAC unit	▼
	▼
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Bethune Elementar	y Evaluation Dat	te August 6, 2013	Time of Day 2	2:00
Outdoor Conditions Temperature	89.7 Relative	Humidity 64.7	Ambient CO2 4	28
Fish Temperature Range 1033 73.1 72 - 78		Range <u>CO</u> ² % - 60%	Range # Oo MAX 700 > Ambient	ccupants
Noticeable Odor No Vis	ible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 2'	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	Yes
Walls Clean Yes	Inside of Supply	Yes	Inside of Return	Vaa
Flooring Clean Yes	Duct Clean	163	Duct Clean	Yes
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes E	xhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	N/A	Air Fresheners	- Na
1100111 014110104	d if Stored in Room is ealed Containers	N/A	in Room	No
Mechanical Equipment Location FISH 102	7A		Mechanical Room Clean	Yes
Filters Installed Properly Yes	Filters Clean	Yes	nside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	Yes		
Fresh Air Intake Location Thru exte	erior wall	▼	Fresh Air Intake Free	Yes
Pollutant Sources Near Air Intake		▼	or obstruction	
Observations				
Slightly elevated humidity, schools staff sociassrooms on the second floor. Chilled w AHU 10-2		•		
Remove 4 bean bag chairs covered with m				
Allow area rugs to thoroughly dry out due	to the elevated humi	dity.		
Corrective Actions to be Completed by Si	te Based Staff	Corrective Action	s to be Completed by PF	90
Remove bean bag chairs	▼		reduce humidity level	▼
Ensure area rugs are thoroughly dry	before ▼	Install appropriate	filter spacer in HVAC uni	t ▼

Remove bean bag chairs	▼
Ensure area rugs are thoroughly dry before	▼
returning to room	▼
	▼
	▼
	▼
	▼
	▼

Repair HVAC to reduce humidity level	▼
Install appropriate filter spacer in HVAC unit	▼
	▼
	▼
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