

managing risk with responsibility

Aston A. Henry, Supervisor Telephone: 754 321-1900 Risk Management Department Fax: 754 321-1917

December 13, 2012

Signature on File

TO: Sandra Shipman, Principal

Pembroke Lakes Elementary School

FROM: Richard Rosa, Project Manager

Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

For Custodial Supervisor Use Only				
	Custodial Issues Addressed			
	Custodial Issues Not Addressed			
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On December 10, 2012, I conducted an assessment at **Pembroke Lakes 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: Directors, School Performance & Accountability
Shelley Meloni, Executive Director, Facilities Design and Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Supervisor, Risk Management
Sonja Coley, Senior Project Manager, Facilities Design and Construction
Broward Teachers Union
Federation of Public Employees

RR/tc Enc.

IAQ Assessment

Pembroke Lakes	Elementary Evaluation Dat	e December 10, 2012	Time of Day 11	:45
Outdoor Conditions Tempera	ature 84.2 Relative	Humidity 73.4	Ambient CO2 42	6
		Range <u>co</u> ² % - 60 %		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling Plaster	Yes	Yes	< 4 sq ft	
Walls Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	N/a
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed N/A	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	N/A	Air Fresheners	No
Room Cluttered N/A	Food if Stored in Room is in Sealed Containers	N/A	in Room	NO
Mechanical Equipment Location	FISH 170		Mechanical Room Clean	Yes
Filters Installed Properly Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	No		
Fresh Air Intake Location	Roof top	▼	Fresh Air Intake Free	Yes
Pollutant Sources Near Air Intake	No	▼	of Obstruction	

Observations

015 is a corridor outside F-174. Check records and evaluate the cleaning of the HVAC coil in AHU. The HVAC supply grill is sweating profusely. The HFSP states that there have been work orders initiated to correct sweating issue but still very wet. I recommend to evaluate the insulation on the duct work for proper installation at the site of the supply vent. At one time water was dripping from the ceiling adjacent to the supply grill through a crack in the ceiling. There is a inspection scuttle hole in the same corridor. The HFSP states that the exterior double doors closest to the supply drop are rarely opened.

Corrective Actions to be Completed by Site Based Staff

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Corrective Actions to be Completed by PPO

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IAQ Assessment

Pembroke Lakes Elementary Eval	luation Date December 10, 2012 Time of Day 11:15							
Outdoor Conditions Temperature 84.2	Relative Humidity 73.4 Ambient CO2 426							
Fish Temperature Range Relative Hum 173 69.6 72 - 78 66.9	nidity Range CO ² Range # Occupants 30% - 60% 649 MAX 700 > Ambient							
Noticeable Odor No Visible water da staining? Ceiling 2' x 4' Walls Tack Board Floor Carpet No Ceiling Clean Yes Walls Clean Yes Inside of Flooring Clean Yes Usible water da staining? No No No No HVAC Su Grills Cle Unside of Duct Clean Flooring Clean Yes Inside of Duct Clean	growth? material affected No No No No HVAC Return Grills Clean Yes Supply Inside of Return							
Room Surfaces No Ceiling a Grills Clean	it Supply							
Trash Removed Yes Exhaust Fans Signs of Pests No Drain To Room Cluttered No Food if Stored in in Sealed Contain	raps Wet N/A Air Fresheners No							
Mechanical Equipment Location FISH 170 Filters Installed Properly Yes Filter Condensate Pan Clean Yes Cooling Co	Mechanical Room Clean Yes rs Clean Yes Inside of HVAC Unit Clean Yes oil Clean No							
Fresh Air Intake Location Roof top Pollutant Sources Near Air Intake	Fresh Air Intake Free of Obstruction							
Observations Check records and evaluate the cleaning of the HVAC coil in AHU.								
Corrective Actions to be Completed by Site Based St	aff Corrective Actions to be Completed by PPO							
Clean cobwebs from elevated corners Clean HVAC supply grills with Wexcide	▼ Evaluate the cleaning of the HVAC coil ▼ Set temperature to 72 - 78 degrees ▼ Repair HVAC to reduce humidity level ▼							

IAQ Assessment

Pembroke Lakes Elementary Evaluation Date December 10, 2012 Time of Day 10:45	5							
Outdoor Conditions Temperature 84.2 Relative Humidity 73.4 Ambient CO2 426								
Fish Temperature Range Relative Humidity Range CO² Range # Occur 174 69.2 72 - 78 68.3 30% - 60% 627 MAX 700 > Ambient	pants							
Noticeable Odor Yes Visible water damage / Visible microbial Staining? Growth? Mount of material affected								
Ceiling 2' x 4' No No								
Walls Tack Board Yes No various discolored areas								
Floor Carpet No No								
Walls Clean No Inside of Supply Inside of Return	res res							
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	No							
	No							
Mechanical Equipment Location FISH 170 Mechanical Room Clean	res .							
Filters Installed Properly Yes Filters Clean Yes Inside of HVAC Unit Clean	res							
Condensate Pan Clean Yes Cooling Coil Clean No								
Fresh Air Intake Location Pollutant Sources Near Air Intake No Roof top Fresh Air Intake Free of Obstruction	⁄es							
Observations								
Dust build up is accumulating by drop ceiling openings and on elevated wall surfaces due to open air plenum above the drop ceiling. Check records and evaluate the cleaning of the HVAC coil in AHU. The tack board is dry per moisture meter but may be responsible for the odor. Once the HVAC system is repaired and functioning normal, the school staff will monitor the room for the absence of the odor.								
Corrective Actions to be Completed by Site Based Staff Corrective Actions to be Completed by PPO								
Clean dust from perimeter ceiling grid ▼ Evaluate the cleaning of the HVAC coil								
Clean HVAC supply grills with Wexcide ▼ Set temperature to 72 - 78 degrees	▼							
Repair HVAC to reduce humidity level	▼							