

Aston A. Henry, Supervisor
Risk Management Department

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August 1, 2012

Signature on File

TO: Donald Gardner, Principal
Park Lakes Elementary School

FROM: Robert Krickovich, Coordinator I, LEA
Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed

On July 31, 2012, I conducted an assessment at **Park 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

RK/tc
Enc.

IAQ Assessment

Park Lakes Elementary

 Evaluation Date July 31, 2012

 Time of Day 3:00

 Outdoor Conditions Temperature 94.8

 Relative Humidity 47.6

 Ambient CO2 419

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
780	61.3	72 - 78	47.0	30% - 60%	438	MAX 700 > Ambient	2	
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 4' Lay in		Yes		Yes		11 tiles	
Walls	Drywall		Yes		Yes		20 square feet	
Floor	12" x 12" Vinyl		No		No			
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		No
Walls Clean		No	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean		No
Flooring Clean		No	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		Yes	Air Fresheners in Room		No
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location			Bard Unit in back of room			Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		No	Inside of HVAC Unit Clean		No
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location			Outside of room ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			None ▼					

Observations

Musty odor in room - 11 stained ceiling tiles from roof leaks - Water damaged walls in three (3) places over marker boards and over tack board due to roof leaks.

Corrective Actions to be Completed by Site Based Staff

Set all HVAC controls for no less than 72 degrees	▼
Thoroughly clean all surfaces	▼
Thoroughly clean and sanitize flooring	▼
Clean HVAC return grills with Wexcide	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC unit inside	▼
Evaluate and repair cause of stained ceiling tiles	▼
Replace stained ceiling tiles	▼
Remove marker boards and tack board	▼
Repair water damaged walls at marker boards	▼
Repair water damaged walls at tack board	▼
Re-install marker boards and tack board	▼
	▼

IAQ Assessment

Park Lakes Elementary

Evaluation Date July 31, 2012

Time of Day 3:00

Outdoor Conditions Temperature 94.8 Relative Humidity 47.6 Ambient CO2 419

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
852	74.8	72 - 78	67.6	30% - 60%	423	MAX 700 > Ambient	2
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		Yes		18 tiles
Walls	Drywall		Yes		Yes		ALL Walls
Floor	12" x 12" Vinyl		Yes		No		10 Sq Ft
Ceiling Clean	No	HVAC Supply Grills Clean	No		HVAC Return Grills Clean	No	
Walls Clean	No	Inside of Supply Duct Clean	No		Inside of Return Duct Clean	No	
Flooring Clean	No	Ceiling at Supply Grills Clean	No				
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	Bard Unit in back of room				Mechanical Room Clean	N/A	
Filters Installed Properly	Yes	Filters Clean	No		Inside of HVAC Unit Clean	No	
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A				
Fresh Air Intake Location	Outside of room ▼				Fresh Air Intake Free of Obstruction	Yes	
Pollutant Sources Near Air Intake	None ▼						

Observations

Musty odor in room - 18 ceiling tiles with visible microbial growth, 4 from roof leaks (water stains), the rest around all HVAC supply grills - Water stain in center of room on floor tile - microbial growth on desks - microbial growth on all wall surfaces

Facilities and Construction will abate wall and ceiling material. PPO will replace.

Corrective Actions to be Completed by Site Based Staff

This room will NOT be available for start of school	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Evaluate and repair cause of stained ceiling tiles	▼
Clean HVAC unit inside	▼
Clean HVAC supply grills and supply drops	▼
Replace ceiling tiles (after abatement)	▼
Replace all wall material (after abatement)	▼
	▼
	▼

IAQ Assessment

Park Lakes Elementary

Evaluation Date July 31, 2012

Time of Day 3:00

Outdoor Conditions Temperature 94.8

Relative Humidity 47.6

Ambient CO2 419

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
Various		72 - 78		30% - 60%		MAX 700 > Ambient	
Noticeable Odor			Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		Various - See Below
Walls	Drywall		Yes		No		Various - See Below
Floor							
Ceiling Clean	<input type="checkbox"/>	HVAC Supply Grills Clean	<input type="checkbox"/>	HVAC Return Grills Clean	<input type="checkbox"/>	Walls Clean	<input type="checkbox"/>
Flooring Clean	<input type="checkbox"/>	Inside of Supply Duct Clean	<input type="checkbox"/>	Inside of Return Duct Clean	<input type="checkbox"/>	Room Surfaces Clean	<input type="checkbox"/>
Room Cluttered	<input type="checkbox"/>	Ceiling at Supply Grills Clean	<input type="checkbox"/>	Exhaust Fans Working	<input type="checkbox"/>	Unapproved Chemicals / Cleaners in Room	<input type="checkbox"/>
Signs of Pests	<input type="checkbox"/>	Food if Stored in Room is in Sealed Containers	<input type="checkbox"/>	Drain Traps Wet	<input type="checkbox"/>	Air Fresheners in Room	<input type="checkbox"/>
Mechanical Equipment Location						Mechanical Room Clean	<input type="checkbox"/>
Filters Installed Properly	<input type="checkbox"/>	Filters Clean	<input type="checkbox"/>	Inside of HVAC Unit Clean	<input type="checkbox"/>	Condensate Pan Clean	<input type="checkbox"/>
Cooling Coil Clean	<input type="checkbox"/>	Fresh Air Intake Location	 ▼			Fresh Air Intake Free of Obstruction	<input type="checkbox"/>
Pollutant Sources Near Air Intake	 ▼						

Observations

FISH 851 - 5 stained ceiling tiles FISH 853 - 2 stained ceiling tiles FISH 857 - 3 stained ceiling tiles

FISH 859 - 2 stained ceiling tiles

FISH 854 - 5 stained ceiling tiles, wet wall material above tackboard by restroom

Corrective Actions to be Completed by Site Based Staff

	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tiles	▼
in FISH 851, 853, 854, 857, 859	▼
Replace stained ceiling tiles	▼
Evaluate and repair cause of water damage	▼
to wall material above tackboard in 854	▼
Remove and replace wall material as necessary	▼
	▼
	▼