

Aston A. Henry, Supervisor
Risk Management Department

Telephone: 754 321-1900
Fax: 754 321-1917

April 11, 2012

Signature on File

TO: Amada Walker, Principal
Silver Palms Elementary School

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

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 April 9, 2012, I conducted an assessment at **Silver Palms 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: Area Superintendent
Area Directors
Shelley Meloni, Executive Director, Facilities and Construction Management
Mark Dorsett, Acting Director, Physical Plant Operations Division, Maintenance
Sonja Coley, Project Manager III, Facilities and Construction Management
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Supervisor, Risk Management
Broward Teachers Union
Federation of Public Employees

RK/tc
Enc.

IAQ Assessment

Silver Palms Elementary

 Evaluation Date April 9, 2012

 Time of Day 9:30

 Outdoor Conditions Temperature 76.8

 Relative Humidity 58.3

 Ambient CO2 468

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
124	73.7	72 - 78	52.7	30% - 60%	668	MAX 700 > Ambient	20
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		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	
Walls Clean		Yes	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean	
Flooring Clean		No	Ceiling at Supply Grills Clean		Yes		
Room Surfaces Clean		No					
Trash Removed		Yes	Exhaust Fans Working		Yes	Unapproved Chemicals / Cleaners in Room	
Signs of Pests		No	Drain Traps Wet		Yes	Air Fresheners in Room	
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		N/A		
Mechanical Equipment Location			FISH 193			Mechanical Room Clean	
Filters Installed Properly		No	Filters Clean		No	Inside of HVAC Unit Clean	
Condensate Pan Clean		Yes	Cooling Coil Clean		Yes		
Fresh Air Intake Location			North Side of Mechanical room 193 ▼			Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake			Trees, grass, Parent drive ▼				

Observations

2" filters doubled up in 4" filter slot (Not Proper Filters) - Fresh air intake 12" above grade level, inside of pre-treat unit is dirty (sand and debris) - Ceiling tiles bowed, not all installed properly (Gaps at ceiling Grid) - Minor dust on all surfaces - Dust debris on floors, heavy in corners and along edges of room - Shelves under windows very dusty - Cob webs on wall base under white board.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Clean along base of wall	▼
Thoroughly clean and sanitize flooring	▼
Remove and replace A/C filters (proper size)	▼
Ensure ceiling tiles are installed properly	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Supply school with proper size filters	▼
Clean inside of pre-treat unit	▼
Evaluate location of fresh air intake and raise	▼
if possible	▼
	▼
	▼
	▼

IAQ Assessment

Silver Palms Elementary

 Evaluation Date April 9, 2012

 Time of Day 9:30

 Outdoor Conditions Temperature 76.8

 Relative Humidity 58.3

 Ambient CO2 468

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
125	73.3	72 - 78	53.3	30% - 60%	674	MAX 700 > Ambient	1
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		2 tiles
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 Duct Clean		Yes	Inside of Return Duct Clean		Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean		Yes			
Room Surfaces Clean	No						
Trash Removed	Yes	Exhaust Fans Working		Yes	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	FISH 193					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			
Fresh Air Intake Location	North Side of Mechanical room 193 ▼					Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Trees, grass, Parent drive ▼						

Observations

2" filters doubled up in 4" filter slot (Not Proper Filters) - Fresh air intake 12" above grade level, inside of pre-treat unit is dirty (sand and debris) - Ceiling tiles bowed, not all installed properly (Gaps at ceiling Grid) - Minor dust on all surfaces - Dust debris on floors, heavy in corners and along edges of room - Shelves under windows very dusty - One stained ceiling tile back left corner of room - One stained ceiling tile over sink cabinet - Metal roof deck above ceiling (no sign of microbial growth)

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Remove and replace A/C filters (proper size)	▼
Clean along base of wall	▼
Remove and replace stained ceiling tiles	▼
if stain returns contact COMPASS for a work order	▼
Ensure ceiling tiles are installed properly	▼
Thoroughly clean and sanitize flooring	▼
	▼

Corrective Actions to be Completed by PPO

Supply school with proper size filters	▼
Clean inside of pre-treat unit	▼
Evaluate location of fresh air intake and raise	▼
if possible	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Silver Palms Elementary

Evaluation Date April 9, 2012

Time of Day 9:30

Outdoor Conditions Temperature 76.8 Relative Humidity 58.3 Ambient CO2 468

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
126	74.0	72 - 78	51.2	30% - 60%	787	MAX 700 > Ambient	20
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No			
Ceiling	2' X 4' Lay in		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 Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	No				

Trash Removed	Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	Yes	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	FISH 193			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		

Fresh Air Intake Location	North Side of Mechanical room 193 ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Trees, grass, Parent drive ▼		

Observations

2" filters doubled up in 4" filter slot (Not Proper Filters) - Fresh air intake 12" above grade level, inside of pre-treat unit is dirty (sand and debris) - Ceiling tiles bowed, not all installed properly (Gaps at ceiling Grid) - Minor dust on all surfaces - Dust debris on floors, heavy in corners and along edges of room - Shelves under windows very dusty - Inside of return air box has minor dust - Insect debris in cabinet over sink - Sink back splash water damaged needs repair / replace.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Remove and replace A/C filters (proper size)	▼
Clean along base of wall	▼
Thoroughly clean and sanitize flooring	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Supply school with proper size filters	▼
Clean inside of pre-treat unit	▼
Evaluate location of fresh air intake	▼
Raise if possible	▼
Clean inside of return air box	▼
Evaluate insect problem	▼
Repair / Replace Sink Back splash	▼
	▼

IAQ Assessment

Silver Palms Elementary

 Evaluation Date April 9, 2012

 Time of Day 9:30

 Outdoor Conditions Temperature 76.8

 Relative Humidity 58.3

 Ambient CO2 468

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
127	74.2	72 - 78	47.4	30% - 60%	981	MAX 700 > Ambient	23
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		2' X 4' Lay in		Drywall		12" x 12" Vinyl	
No		No		No		No	
Ceiling Clean	Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	Yes		
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes		
Flooring Clean	No	Ceiling at Supply Grills Clean	Yes				
Room Surfaces Clean	No						
Trash Removed	Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No		
Signs of Pests	Yes	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	FISH 193					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				
Fresh Air Intake Location	North Side of Mechanical room 193					Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Trees, grass, Parent drive						

Observations

2" filters doubled up in 4" filter slot (Not Proper Filters) - Fresh air intake 12" above grade level, inside of pre-treat unit is dirty (sand and debris) - Ceiling tiles bowed, not all installed properly (Gaps at ceiling Grid) - Minor dust on all surfaces - Dust debris on floors, heavy in corners and along edges of room - Shelves under windows very dusty - Insect debris inside of metal cabinet by restroom - Sink back splash water damaged needs repair / replace.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Remove and replace A/C filters (proper size)	▼
Clean along base of wall	▼
Clean HVAC supply grills with Wexcide	▼
Thoroughly clean and sanitize flooring	▼
Ensure ceiling tiles are installed properly	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Supply school with proper size filters	▼
Clean inside of pre-treat unit	▼
Evaluate location of fresh air intake and raise if possible	▼
Generate work order for pest control	▼
Repair / Replace sink back splash	▼
	▼
	▼