

Aston A. Henry, Director

# managing risk with responsibility

754 321-1900

Telephone:

Risk Management Department		Fax: 754 321-1917
October 7, 2014 Signature on File		For Custodial Supervisor Use Only
TO:	Amada Walker, Principal Silver Palms Elementary School	Custodial Issues Addressed  Custodial Issues Not Addressed
FROM:	Richard Rosa, Project Manager Risk Management Department	Custodiai issues ivot rudiessed
SUBJECT:	Indoor Air Ouality (IAO) Assessment	

On September 29, 2014, 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: 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

RR/tc Enc.

Thoroughly clean horizontal surfaces	▼
Clean ceilings around HVAC supply grills	▼
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Corrective Actions to be Completed by PPO	
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Outdoor Conditions Temperature	90.1 Relative	Humidity 63.7	Ambient CO2 45	i8
Fish         Temperature         Range           167         74.1         72 - 78	i	Range CO <sup>2</sup> 916		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in	Yes	No	4 ceiling stains	
Walls Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No 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 No Clean	Ceiling at Supply Grills Clean	No		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes	<b>Drain Traps Wet</b>	N/A		
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location FISI	H 186		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 Exte	erior unit	▼	Fresh Air Intake Free of Obstruction	Yes

#### **Observations**

Intake

**Pollutant Sources Near Air** 

Construction paper is retaining moisture. Stained ceiling tiles could be from roof leaks, fire sprinkler piping, or chilled water lines where rodents have chewed through the foam insulation. Carpenters should evaluate piping entering into the drop ceiling area for water intrusion from the exterior of the building. Possible area of rodent intrusion is just below the roof cap above the drop ceiling entering into the air handler room F-186. Recommend to close up the firewall opening entering into the classroom area from the Mechanical room above the drop ceiling.

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

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#### Corrective Actions to be Completed by PPO

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Corrective Actions to be completed by 11 C	
Evaluate and repair cause of stained ceiling tiles	▼
Generate work order for pest control - Rodents	▼
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	▼
See observations for additional information	▼
	▼
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Stained ceiling tiles could be from roof leaks, fire sprinkler piping, or chilled water lines. Carpenters should evaluate piping entering into the drop ceiling area for water intrusion from the exterior of the building.

## Corrective Actions to be Completed by Site Resed Staff

Corrective Actions to be Completed by Site based Stair		
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#### Corrective Actions to be Completed by PPO

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Outdoor Conditions Tem	nperature <u>90.1</u> Relativ	e Humidity 63.7	Ambient CO2 45	58
Fish Temperature 172 74.4	Range Relative Humidity 72 - 78 34.9 30	Range CO <sup>2</sup> 914		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in	Yes	No	10 ceiling stains	
Walls Drywall	Yes	No	< 2 sq ft	
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean No	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 No 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	Yes	Air Frachanora	□ No □
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Locat	tion FISH 186		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	Exterior unit	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No	▼	or obstruction	

#### **Observations**

Stained ceiling tiles could be from roof leaks, fire sprinkler piping, or chilled water lines. Carpenters should evaluate piping entering into the drop ceiling area for water intrusion from the exterior of the building. In the back of the classroom adjacent to the stained ceiling tiles a portion of the wall is wet.

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

Corrective Actions to be completed by one based of	···
Replace stained ceiling tiles after repairs	▼
Thoroughly clean horizontal surfaces	▼
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Coordinate a schedule with instructor to clean	▼
properly due to clutter	▼
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#### Corrective Actions to be Completed by PPO

Corrective Actions to be completed by 110	
Evaluate and repair cause of stained ceiling tiles	▼
Evaluate and repair cause of water damage	▼
Remove and replace wall material as necessary	▼
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See observations for additional information	▼
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# **IAQ Assessment**

Silver Palms Elementary Eva	luation Da	September 29, 201	4 Time of Day 2:00	
Outdoor Conditions Temperature 90.1	Relativ	re Humidity 63.7	Ambient CO2 458	
Fish         Temperature         Range         Relative Hull           178         74.1         72 - 78         36.5	<del>-i</del>	Range <u>CO</u> 0% - 60%		nts
Noticeable Odor No Visible water d		Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in Yes		No	1 ceiling stains	
Walls Drywall No		No		۲1
Floor 12" x 12" Vinyl No		No		Ц
Ceiling Clean No HVAC S Grills Cl Walls Clean Yes		Yes	HVAC Return Grills Clean	s
	f Supply	Yes	Inside of Return  Puct Clean  Yes	s
	at Supply	Yes	Duct Glean	
Trash Removed Yes Exhaust Fans	Working	Yes	Unapproved Chemicals /	$\Box$
Signs of Pests No Drain 1	Traps Wet	Yes		<b>二</b>
Room Cluttered No Food if Stored in Sealed Conta		N/A	Air Fresheners No in Room	
Mechanical Equipment Location FISH 185			Mechanical Room Clean Yes	s
Filters Installed Properly Yes Filter	ers Clean	Yes	Inside of HVAC Unit Clean Yes	s
Condensate Pan Clean Yes Cooling C	oil Clean	Yes		
Fresh Air Intake Location Exterior unit		▼	Fresh Air Intake Free Obstruction	$\begin{bmatrix} \\ s \end{bmatrix}$
Pollutant Sources Near Air Intake		▼	of Obstruction	
Observations				
Stained ceiling tile could be from fire sprinkler piping	J			
Corrective Actions to be Completed by Site Based S	taff	Corrective Action	ons to be Completed by PPO	
Replace stained ceiling tiles after repair	▼		cause of stained ceiling tiles	▼
	▼			<b>▼</b>
	▼	See observations	s for additional information	▼
	▼			▼

Thoroughly clean horizontal surfaces	▼
Coordinate a schedule with instructor to clean	▼
properly due to clutter	▼
Clean ceilings around HVAC supply grills	▼
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Corrective Actions to be Completed by PPO	
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