

# RISK MANAGEMENT...

## managing risk with responsibility

Aston A. Henry, Director  
Risk Management Department

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September 10, 2013

Signature on File

TO: Maria Bach, Principal  
**Challenger Elementary School**

FROM: Robert Krickovich, Coordinator I, LEA  
Risk Management Department

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
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On August 27, 2013, I conducted an assessment at **Challenger 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, Task Assigned Chief Facilities & Construction Officer, 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

RK/tc  
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Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants	
421	75.7	72 - 78	56.7	30% - 60%	501	MAX 700 > Ambient	2	
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		Yes		No		6 sq ft	
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		Yes						
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		Bard Q-Tec in room				Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean		N/A
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location		Outside of Unit				Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake		None						

## Observations

Room used for storage - Ceiling tile missing behind HVAC unit - 2 stained ceiling tiles - Concrete roof deck above ceiling, No water damage above ceiling - Rust stained floor tile in front of and left of A/C unit.

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

[illegible]

### Corrective Actions to be Completed by PPO

Evaluate and repair roof leaks	▼
Remove and replace stained ceiling tiles	▼
Replace damaged floor tile	▼
	▼
	▼
	▼
	▼
	▼

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Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants	
422	75.5	72 - 78	46.9	30% - 60%	469	MAX 700 > Ambient	2	
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 4' Lay in		Yes		No		1 tile	
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		Yes						
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		Bard Q-Tec in room				Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean		N/A
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location		Outside of Unit				Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake		None						

## Observations

**2 ping pong tables in room - room used for after care - Ceiling tile missing behind HVAC unit - 1 stained ceiling tile @ fire sprinkler head - Concrete roof deck above ceiling, No water damage above ceiling.**

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

[illegible]

### Corrective Actions to be Completed by PPO

[illegible]

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Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
423	75.2	72 - 78	51.9	30% - 60%	861	MAX 700 > Ambient	19
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	
Walls Clean		Yes	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean	
Flooring Clean		Yes	Ceiling at Supply Grills Clean		Yes		
Room Surfaces Clean		Yes					
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			Bard Q-Tec in room			Mechanical Room Clean	
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean	
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A		
Fresh Air Intake Location		Outside of Unit				Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake		None				Yes	

## Observations

**Ceiling tile missing behind HVAC unit - 2 stained ceiling tiles right of A/C unit - Concrete roof deck above ceiling, No water damage above ceiling.**

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

[illegible]

### Corrective Actions to be Completed by PPO

[illegible]



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Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
425	74.6	72 - 78	46.5	30% - 60%	1043	MAX 700 > Ambient	22
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		Yes		No		3 sq ft
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		Yes	Ceiling at Supply Grills Clean		Yes		
Room Surfaces Clean		Yes					
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			Bard Q-Tec in room			Mechanical Room Clean	
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean	
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A		
Fresh Air Intake Location		Outside of Unit				Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake		None				Yes	

## Observations

**Ceiling tile missing behind HVAC unit - 2 stained ceiling tiles, one @ fire sprinkler head - 3 sq ft of wall has water stains near ceiling right of windows - Concrete roof deck above ceiling, No water damage above ceiling.**

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

[illegible]

### Corrective Actions to be Completed by PPO

[illegible]

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Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
426	73.5	72 - 78	49.9	30% - 60%	958	MAX 700 > Ambient	20
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		1 tile
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		Yes	Ceiling at Supply Grills Clean		Yes		
Room Surfaces Clean		Yes					
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			Bard Q-Tec in room			Mechanical Room Clean	
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean	
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A		
Fresh Air Intake Location		Outside of Unit				Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake		None				Yes	

Ceiling tile missing behind HVAC unit - 1 stained ceiling tile - Concrete roof deck above ceiling, No water damage above ceiling.

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