RISK
MANAGEMENT…

managing risk with responsibility

Aston A. Henry, Director
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August 27, 2014 Signature on File

For Custodial Supervisor Use Only

☐ Custodial Issues Addressed

☐ Custodial Issues Not Addressed

_____

_____

TO: Horace Hamm, Principal
McNicol Middle School

FROM: Richard Rosa, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

On August 19, 2014, I conducted an assessment at **McNicol Middle 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.

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 1:45

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
102	72.1	72 - 78	49.1	30% - 60%	1136	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Plaster	No	No	
Floor	Carpet	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	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	N/A	Air Fresheners in Room	No
Room Cluttered	Yes	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	Fish 107			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

F-102 is the Media center. Minor dust on elevated surfaces.

Corrective Actions to be Completed by Site Based Staff

- Thoroughly clean elevated surfaces

Corrective Actions to be Completed by PPO

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 11:00

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
115	74.8	72 - 78	42.7	30% - 60%	848	MAX 700 > Ambient	

Noticeable Odor: No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	Yes	No	1 ceiling tile
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	No	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	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	FISH 121 ahu 1-5			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

Remove construction paper from walls and tackboard surfaces; the paper is retaining excessive moisture.

Corrective Actions to be Completed by Site Based Staff

- Replace stained ceiling tile after repair
- Remove construction paper from walls and tackboard surfaces

Corrective Actions to be Completed by PPO

- Evaluate and repair cause of stained ceiling tiles

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 11:30

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116	73.0	72 - 78	46.6	30% - 60%	825	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	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	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	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	FISH 121 ahu 1-5			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

Remove construction paper from walls and tackboard surfaces; the paper is retaining excessive moisture.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Remove construction paper from walls and tackboard surfaces	

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 11:45

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
118	73.2	72 - 78	51.3	30% - 60%	1045	MAX 700 > Ambient	25

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	Yes	No	1 ceiling stain
Walls	Drywall	No	No	
Floor	12" x 12" Vinyl	No	No	

Ceiling Clean	No	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	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	FISH 121 ahu 1-5			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	Thru exterior wall	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

Remove construction paper from walls and tackboard surfaces; the paper is retaining excessive moisture. There is residual dirt on the top of flooring baseboards that isn't microbial growth.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Replace stained ceiling tile after repair	Evaluate and repair cause of stained ceiling tiles
Remove construction paper from walls and tackboard surfaces	

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 12:00

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
141	71.7	72 - 78	61.7	30% - 60%	745	MAX 700 > Ambient	

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	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean	No		
Room Surfaces Clean	Yes				

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	Fish 139 AHU 1-22			Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters Clean	No	Inside of HVAC Unit Clean	No
Condensate Pan Clean	Yes	Cooling Coil Clean	Yes		

Fresh Air Intake Location	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

Remove construction paper from walls and tackboard surfaces; the paper is retaining excessive moisture. In the mechanical room F-139, I also checked air handler unit 1-9 and the unit needs a filter spacer.

Corrective Actions to be Completed by Site Based Staff

- Clean ceilings around HVAC supply grills
- Install proper filters, tape and date.
- Remove construction paper from walls and tackboard surfaces

Corrective Actions to be Completed by PPO

- Clean inside the HVAC - debris
- Repair HVAC to reduce humidity level
- Install filter spacer in AHU 1-9

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 1:30

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
239	71.7	72 - 78	46.2	30% - 60%	974	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Plaster	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	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	No	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	Fish 266			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

Corrective Actions to be Completed by Site Based Staff

- Run water in sinks and floor drains monthly

Corrective Actions to be Completed by PPO

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 12:45

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
301	71.4	72 - 78	47.2	30% - 60%	544	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Plaster	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	Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces 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 in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 313 AHU 2-3			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

F-301 is the auditorium. Due to the ceiling height, a genie high lift is needed. PPO maintenance may need to assist with high lift. HFSP to contact PPO for proper genie lift as needed.

Corrective Actions to be Completed by Site Based Staff

- Vacuum/wipe return grills

Corrective Actions to be Completed by PPO

- Assist with change out of ceiling tiles adjacent to HVAC supply grills in FISH 301
- See observations for additional information

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 12:00

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
315	73.2	72 - 78	39.3	30% - 60%	712	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Plaster	No	No	
Floor	Carpet	No	No	

Ceiling Clean	No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean	No		
Room Surfaces 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 in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 313 AHU 2-4			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

F-315 is the band room. Due to the ceiling height, a genie high lift is needed. Change out all dirty ceiling tiles adjacent to the supply grills. PPO maintenance may need to assist with high lift. HFSP to contact PPO for proper genie lift as needed. Though F-314 was not on the IAQ list, replace the ceiling tiles adjacent to HVAC supply grills.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Clean HVAC supply and return grills with Wexcide	Assist with change out of ceiling tiles adjacent to HVAC supply grills in FISH 314 and 315
	See observations for additional information

IAQ Assessment

McNicol Middle | Evaluation Date: August 19, 2014 | Time of Day: 12:30

Outdoor Conditions Temperature: 88.8 | Relative Humidity: 65.9 | Ambient CO2: 433

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
322	70.1	72 - 78	52.6	30% - 60%	500	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	Bar Joists	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	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	N/A	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	Fish 327 AHU 2-7			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No		

Observations

F-322 is the Gymnasium
In the Mechanical room, a section of insulation needs to be refastened to the ductwork, flopping. Insulation tape is needed.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
	Repair insulation on ductwork and tape as needed