

# managing risk with responsibility

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July 31, 2014	Signature on File	For Custodial Supervisor Use Only
TO:	Horace Hamm, Principal McNicol Middle School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Richard Rosa, Project Manager Risk Management Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On July 22, 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 Assessi	ment		
Мс	Nicol Middle Evaluation Dat	te July 22, 2014	Time of Day 10	):30
Outdoor Conditions Temper	ature 86.1 Relative	e Humidity 66.8	Ambient CO2 42	7
		Range         CO <sup>2</sup> % - 60%         721	Range # Oc MAX 700 > Ambient	cupants
Noticeable OdorYesCeiling2' X 4' Lay in	Visible water damage / staining? Yes	Visible microbial growth? Yes	Amount of material affected 2 ceiling tiles / <6 sq	ft
Walls         Drywall/Ceramic tile           Floor         Ceramic Tile	No           No	No		
Ceiling CleanNoWalls CleanYesFlooring CleanYesRoom SurfacesYesCleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean	N/a N/A
Trash RemovedN/ASigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean Yes		Yes	Mechanical Room Clean Inside of HVAC Unit Clean	Yes Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake	Thru exterior wall Parking Lot	▼	Fresh Air Intake Free of Obstruction	Yes
Observations Womens restroom. EMS panel i installed in the restroom. There				

on the exhaust fan or tie into EMS. Staff states the only temperature control is manual.

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

Remove and replace stained ceiling tiles	▼
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	▼
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#### **Corrective Actions to be Completed by PPO**

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Recommend to connect HVAC to EMS	▼
Set temperature to 72 - 78 degrees	▼
Evaluate the exhaust fan	▼
	▼
	▼
	▼
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	IAQ Assess	sment		
McI	Nicol Middle Evaluation Da	ate July 22, 2014	Time of Day	0:00
Outdoor Conditions Tempera	ature 86.1 Relativ	e Humidity 66.8	Ambient CO2 4	27
	angeRelative Humidity- 7851.330	Range         CO <sup>2</sup> 0% - 60%         693		ccupants
Noticeable OdorNoCeiling2' X 4' Lay inWallsDrywall/Ceramic tileFloorCeramic Tile	Visible water damage / staining? No No No	Visible microbial growth? No No No	Amount of material affected	
Ceiling CleanNoWalls CleanYesFlooring CleanYesRoom SurfacesYesCleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes No	HVAC Return Grills Clean Inside of Return Duct Clean	N/a N/A
Trash RemovedN/ASigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean Yes	-	Yes Yes	Mechanical Room Clean Inside of HVAC Unit Clean	Yes Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake	Thru exterior wall Parking Lot	▼	Fresh Air Intake Free of Obstruction	Yes
Observations Mens restroom. EMS panel in hallway adjacent to mechanical room 118. Staff states the only temperature control is manual.				

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

Clean dust adjacent to exhaust fan on ceiling	▼
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#### **Corrective Actions to be Completed by PPO**

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	IAQ Assessi	ment		
McNic	ol Middle Evaluation Dat	<b>e</b> July 22, 2014	Time of Day 1	1:00
Outdoor Conditions Temperatu	re 86.1 Relative	Humidity 66.8	Ambient CO2 4	27
Fish         Temperature         Rang           116         74.6         72 - 7		Range         CO           % - 60%         594		ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' X 4' Lay inWallsDrywall/Ceramic tileFloorCeramic Tile	Yes No No	Yes No No	2 ceiling tiles / < 4 so	a ft
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean Inside of Supply	Yes	HVAC Return Grills Clean Inside of Return	N/a
Flooring Clean Yes	Duct Clean	Yes	Duct Clean	N/A
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed N/A Signs of Pests No	Exhaust Fans Working Drain Traps Wet	Yes	Unapproved Chemicals / Cleaners in Room	No
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location F	ISH 118		Mechanical Room Clean	Yes
Filters Installed Properly No	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	No		
Pollutant Sources Near Air	oof top o	▼ ▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
Womens restroom. EMS panel in h exhaust fan, there is water on the f				l the

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tiles	▼
Remove and replace A/C filters	▼
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Recommend to connect HVAC to EMS	▼
Evaluate and repair cause of stained ceiling tiles	▼
Evaluate the cleaning of the HVAC coil	▼
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	IAQ Assess	sment	
N	CNicol Middle Evaluation Da	ate July 22, 2014	Time of Day 11:30
Outdoor Conditions Tempe	erature 86.1 Relativ	e Humidity 66.8	Ambient CO2 427
	RangeRelative Humidity72 - 7861.130	Range         CO <sup>2</sup> 0% - 60%         641	Range # Occupants MAX 700 > Ambient
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling2' X 4' Lay inWallsPlasterFloor12" x 12" Vinyl	Yes No No	No No	1 ceiling stain < 1 sq ft
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean Yes
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean N/A
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes	
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / No
Signs of Pests No Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners No in Room
Mechanical Equipment Location	n <b>FISH 118</b>		Mechanical Room Clean Yes
Filters Installed Properly	lo Filters Clean	Yes	Inside of HVAC Unit Clean Yes
Condensate Pan Clean Ye	Cooling Coil Clean	No	
Fresh Air Intake Location Pollutant Sources Near Air Intake	Roof top No	<ul><li>▼</li></ul>	Fresh Air Intake Free of Obstruction Yes
Observations			
	ywood Parks & Recreation. EMS states the only temperature cor		ent to mechanical room 118.

Corrective Actions to be Completed by Site Based Staff

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Remove and replace stained ceiling tiles	▼
Remove and replace A/C filters	▼
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Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
Install appropriate filter spacers in HVAC	▼
Evaluate the cleaning of the HVAC coil	▼
Evaluate and repair cause of stained ceiling tiles	▼
Recommend to connect HVAC to EMS	▼
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	IAQ Assessr	nent		
McN	licol Middle Evaluation Date	e July 22, 2014	Time of Day	1:30
Outdoor Conditions Tempera	ture 86.1 Relative	Humidity 66.8	Ambient CO2 4	27
		Range         CO <sup>2</sup> % - 60%         707	Range # O MAX 700 > Ambient	ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling Drywall/2'x4' Walls Plaster	No	No		
Floor Carpet	No	No		
Ceiling Clean Yes 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 Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	FISH 118		Mechanical Room Clean	Yes
Filters Installed Properly No	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	Νο		
Fresh Air Intake Location Pollutant Sources Near Air Intake	Roof top No	▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
Building being utilized by Hollyw	ood Parks & Recreation. EMS	panel in hallway adjad	cent to mechanical room	118

Install two filter spacers. Staff states the only temperature control is manual. There was a floor heater and air cleaner in the room at the time of assessment. When the heater is on: temperature 71.7 degrees & humidity level is 47.8%. When the heater is turned off: temperature 68.6 degrees & humidity level is 62.3%.

Corrective Actions to be Completed by Site Based Staff

Remove and replace A/C filters	▼
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Recommend to connect HVAC to EMS	▼
	▼
Evaluate the cleaning of the HVAC coil	▼
Install appropriate filter spacers in HVAC	▼
Set temperature to 72 - 78 degrees	▼
Repair HVAC to reduce humidity level	▼
	▼
	▼

	IAQ Assessi	ment	
M	cNicol Middle Evaluation Dat	July 22, 2014	Time of Day 11:30
Outdoor Conditions Tempe	erature 86.1 Relative	e Humidity 66.8	Ambient CO2 427
		Range         CO <sup>2</sup> % - 60%         623	Range# OccupantsMAX 700 >Ambient
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling2' X 4' Lay inWallsPlasterFloor12" x 12" Vinyl	Yes No No	No No	3 ceiling stain < 1 sq ft
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	Νο	HVAC Return Grills Clean No
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean N/A
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes	
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / No
Signs of Pests No Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners No in Room
Mechanical Equipment Location	FISH 118		Mechanical Room Clean Yes
Filters Installed Properly	<b>o</b> Filters Clean	Yes	Inside of HVAC Unit Clean Yes
Condensate Pan Clean Ye	Cooling Coil Clean	No	
Fresh Air Intake Location Pollutant Sources Near Air	Roof top No	<ul><li>▼</li></ul>	Fresh Air Intake Free Yes
Intake Observations		·	
Building being utilized by Holly	wood Parks & Recreation. EMS states the only temperature cont		ent to mechanical room 118.

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

Remove and replace stained ceiling tiles	▼
Remove and replace A/C filters	▼
Clean HVAC supply grills with Wexcide	▼
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	▼
	▼

Recommend to connect HVAC to EMS	▼
Evaluate and repair cause of stained ceiling tiles	▼
Evaluate the cleaning of the HVAC coil	▼
Install appropriate filter spacers in HVAC	▼
Set temperature to 72 - 78 degrees	▼
Repair HVAC to reduce humidity level	▼
	▼
	▼