

## managing risk with responsibility

Aston A. Henry, Di	rector
Risk Management I	Department

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April 9, 2015	Signature on File	
1	0	For Custodial Supervisor Use Only
TO:	James Neer, Principal	Custodial Issues Addressed
	Monarch High	Custodial Issues Not Addressed
FROM:	Daniel Meyer, Project Manager Risk Management Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On April 8, 2015, I conducted an assessment at **Monarch High 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 754-321-1900.

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

DM/jj Enc.

	IAQ Assessi	ment		
М	onarch High Evaluation Dat	e April 8, 2015	Time of Day 10:	40 AM
Outdoor Conditions Tempera	ature 80.8 Relative	Humidity 63.1	Ambient CO2 4	35
		Range         CO <sup>2</sup> % - 60%         1636		26
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	Νο	No		
Ceiling Clean Yes	HVAC Supply Grills Clean	Νο	HVAC Return Grills Clean	Yes
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
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	Drain Traps Wet	N/A		
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	Bard like HVAC system in clas	ssroom	Mechanical Room Clean	N/A
Filters Installed Properly Yes	S Filters Clean	Yes	Inside of HVAC Unit Clean	No
Condensate Pan Clean Yes	Cooling Coil Clean	No		
Fresh Air Intake Location	Behind Bard unit/Exterior wal	I V	Fresh Air Intake Free	Yes
Pollutant Sources Near Air Intake	Νο	▼	of Obstruction	
Observations				
Supply grills need to be cleaned needs to be cleaned			2 levels in classroom. Coo	bling coil

Corrective Actions to be Completed by Site Based Staff

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## **Corrective Actions to be Completed by PPO**

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Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to reduce CO2 level in classroom	▼
Clean the HVAC coil	▼
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	IAQ	Assessment			
1	Monarch High Eva	luation Date	oril 8, 2015	Time of Day	0:40 AM
Outdoor Conditions Tempe	rature 80.8	Relative Humidit	y 63.1	Ambient CO2	435
	RangeRelative Hu2 - 7853.5	midity Range	<b>CO</b> <sup>2</sup> 523	Range # ( MAX 700 > Ambient	Occupants 3
Noticeable OdorNoCeiling2' X 4' Lay inWallsDrywall	Visible water d staining Yes	unage/	e microbial rowth? No No	Amount of material affected 1 tile	
Floor   12" x 12" Vinyl	No No		No		
Ceiling CleanYesWalls CleanYesFlooring CleanNoRoom SurfacesYes	Duct Cle Ceiling a	ean No f Supply Yes an Yes		HVAC Return Grills Clean Inside of Return Duct Clean	Yes No
Clean Trash Removed Yes Signs of Pests No Room Cluttered No	Grills Cl Exhaust Fans Drain T Food if Stored i in Sealed Conta	Working N/A Traps Wet N/A		Unapproved Chemicals Cleaners in Room Air Fresheners in Room	/ <u>No</u> No
Mechanical Equipment Location Filters Installed Properly Ye Condensate Pan Clean Ye	es Filte	ers Clean Yes		Mechanical Room Clean	
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Ex	terior wall	<ul><li>▼</li></ul>	Fresh Air Intake Free of Obstruction	Yes
Observations Supply grills need to be cleane the time of inspection.	d with wexcide. Cooli	ig coil needs to be	cleaned. One s	stained ceiling tile - no	t wet at

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tiles	▼
Clean HVAC supply grills with Wexcide	▼
Clean floor with wecxcide	▼
Wax floor after cleaned propoerly	▼
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Corrective Actions to be Completed by PPO

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Clean the HVAC coil	▼
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	IAQ Assessr	ment		
1	Monarch High Evaluation Date	e April 8, 2015	Time of Day 10:4	40 AM
Outdoor Conditions Tempe	erature 80.8 Relative	Humidity 63.1	Ambient CO2 4	35
		Range         CO <sup>2</sup> % - 60%         1214		cupants 12
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 Walls Clean Yes	HVAC Supply Grills Clean	Νο	HVAC Return Grills Clean	Yes
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
Room Surfaces Yes Clean	Ceiling at Supply Grills 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		
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	n Bard like HVAC system in clas	ssroom	Mechanical Room Clean	N/A
Filters Installed Properly	es Filters Clean	Yes	Inside of HVAC Unit Clean	No
Condensate Pan Clean Ye	es Cooling Coil Clean	No		
Fresh Air Intake Location	Behind Bard unit/Exterior wall	I ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Νο	▼	of Obstruction	
Observations				
Supply grills need to be cleane to be cleane to be cleaned or replaced.	ed with wexcide. Cooling coil nee	eds to be cleaned. Ceili	ng tiles around supply gr	ills need

Corrective Actions to be Completed by Site Based Staff

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Clean ceilings around HVAC supply grills	▼
Clean HVAC supply grills with Wexcide	▼
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Corrective Actions to be Completed by PPO

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Clean the HVAC coil
Repair HVAC to Reduce Humidity Levels
Repair HVAC to reduce CO2 level in classroo
ls

	IAQ Assessi	ment		
М	onarch High Evaluation Dat	te April 8, 2015	<b>Time of Day</b> 10:	40 AM
Outdoor Conditions Tempera	ature 80.8 Relative	e Humidity 63.1	Ambient CO2 4	35
		Range         CO <sup>2</sup> % - 60%         1716		ccupants 40
Noticeable OdorNoCeiling2' X 4' Lay inWallsDrywallFloor12" x 12" Vinyl	Visible water damage / staining? No No	Visible microbial growth? No No	Amount of material affected	
Ceiling CleanYesWalls CleanYesFlooring CleanNoRoom SurfacesYesCleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	No Yes No	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A 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	-		Mechanical Room Clean Inside of HVAC Unit Clean	N/A No
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wal	I ▼	Fresh Air Intake Free of Obstruction	Yes
Observations Supply grills need to be cleaned to be cleaned or replaced.	with wexcide. Cooling coil nee	eds to be cleaned. Ceil	ing tiles around supply gr	ills need

Corrective Actions to be Completed by Site Based Staff

Clean ceilings around HVAC supply grills	▼
Clean Supply Grills with Wexcide	▼
Remove cardboard from classroom	▼
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Corrective Actions to be Completed by PPO

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Clean the HVAC coil
Repair HVAC to Reduce Humidity Levels
Repair HVAC to reduce CO2 level in classroom

	IAQ Assess	ment		
Ма	narch High Evaluation Da	te April 8, 2015	Time of Day 10:	40 AM
Outdoor Conditions Tempera	ture 80.8 Relative	e Humidity 63.1	Ambient CO2 4	35
		Range CO % - 60% 141		ccupants 3
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' X 4' Lay inWallsDrywallFloor12" x 12" Vinyl	No No No	No No No		
Ceiling Clean Yes Walls Clean Yes Flooring Clean No	HVAC Supply Grills Clean Inside of Supply Duct Clean	No	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location	Bard like HVAC system in cla	ssroom	Mechanical Room Clean	N/A
Filters Installed Properly     Yes       Condensate Pan Clean     Yes	7	Yes	Inside of HVAC Unit Clean	No
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wa	II ▼ ▼	Fresh Air Intake Free of Obstruction	Yes
Observations Supply grills need to be cleaned	with wexcide. Cooling coil ne	eds to be cleaned.		

Corrective Actions to be Completed by Site Based Staff

Clean HVAC supply grills with Wexcide	▼
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## Corrective Actions to be Completed by PPO

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Clean the HVAC coil	▼
Repair HVAC to reduce CO2 level in classroom	▼
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	IAQ Assessi	ment		
M	onarch High Evaluation Dat	e April 8, 2015	Time of Day 10:4	10 AM
Outdoor Conditions Tempera	ature 80.8 Relative	e Humidity 63.1	Ambient CO2 43	35
		Range         CO <sup>2</sup> % - 60%         1944		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling2' X 4' Lay inWallsDrywallFloor12" x 12" Vinyl	No           No           No	No No		
Ceiling Clean Yes Walls Clean Yes Flooring Clean No	HVAC Supply Grills Clean Inside of Supply Duct Clean	No	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed   Yes     Signs of Pests   No	Exhaust Fans Working Drain Traps Wet	N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners	No
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	in Room	
Mechanical Equipment Location Filters Installed Properly Yes Condensate Pan Clean Yes	-	ssroom Yes No	Mechanical Room Clean Inside of HVAC Unit Clean	N/A No
Fresh Air Intake Location Pollutant Sources Near Air Intake	Behind Bard unit/Exterior wal	I ▼	Fresh Air Intake Free of Obstruction	Yes
Observations Supply grills need to be cleaned	with wexcide. Cooling coil nee	eds to be cleaned. High	n CO2 levels	

Corrective Actions to be Completed by Site Based Staff

Clean HVAC supply grills with Wexcide	▼
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## Corrective Actions to be Completed by PPO

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Clean the HVAC coil	▼
Repair HVAC to reduce CO2 level in classroom	▼
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