

Aston A. Henry, Supervisor
Risk Management Department

Telephone: 754 321-1900
Fax: 754 321-1917

November 20, 2012

Signature on File

TO: Todd LaPace, Principal
McArthur High School

FROM: Richard Rosa, Project Manager
Facilities Design and Construction

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

On November 14, 2012, I conducted an assessment at **McArthur 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 754-321-1907.

cc: Directors, School Performance & Accountability
Shelley Meloni, Executive Director, Facilities Design and Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Supervisor, Risk Management
Sonja Coley, Senior Project Manager, Facilities Design and Construction
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

McArthur High

Evaluation Date November 14, 2012

Time of Day 10:15

Outdoor Conditions Temperature 84.3

Relative Humidity 59.5

Ambient CO2 428

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
115	71.7	72 - 78	63.2	30% - 60%	966	MAX 700 > Ambient	
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' x 4'		No	No			
Walls	Drywall		No	No			
Floor	Carpet / VCT		Yes	No			minor
Ceiling Clean		Yes	HVAC Supply Grills Clean		No	HVAC Return Grills Clean	
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean	
Flooring Clean		No	Ceiling at Supply Grills Clean		No		
Room Surfaces Clean		No					
Trash Removed		Yes	Exhaust Fans Working		N/A	Unapproved Chemicals / Cleaners in Room	
Signs of Pests		No	Drain Traps Wet		N/A	Air Fresheners in Room	
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		N/A		
Mechanical Equipment Location			Roof Top			Mechanical Room Clean	
Filters Installed Properly		N/A	Filters Clean		N/A	Inside of HVAC Unit Clean	
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A		
Fresh Air Intake Location			Roof top ▼			Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake			No ▼			Yes	

Observations

At the time of the assessment, there was an additional portable HVAC system in use. Due to the HVAC project, (replacement of HVAC system) underway in this area, and the dampness in the carpet due to elevated humidity. I recommend replacement of the carpet. Above the drop ceiling is the return air plenum, in areas of the ceiling grid there is accumulated dust buildup. Approximately 4500 sq ft of carpet in 115, 115A & 115C. The new units are to be installed sometime in February 2013. I recommend that the PPO duct cleaning crew schedule the duct cleaning after the new units have been installed. Schedule with Frank Girardi

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean horizontal surfaces	▼
Clean HVAC supply grills with Wexcide	▼
Vacuum return grill	▼
Clean dust from perimeter ceiling grid	▼
Clean dust from ceiling tiles or replace	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC supply drops	▼
Evaluate carpet for replacement with tile	▼
	▼
	▼
See observations for additional info	▼
	▼
	▼
	▼

IAQ Assessment

McArthur High

Evaluation Date November 14, 2012

Time of Day 10:15

Outdoor Conditions Temperature 84.3

Relative Humidity 59.5

Ambient CO2 428

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
115A	72.3	72 - 78	64.5	30% - 60%	876	MAX 700 > Ambient		
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' x 4'		No		No			
Walls	Drywall		No		No			
Floor	Carpet / VCT		Yes		No		minor	
Ceiling Clean		Yes	HVAC Supply Grills Clean		No	HVAC Return Grills Clean		No
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean		N/A
Flooring Clean		No	Ceiling at Supply Grills Clean		No			
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		No	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location			Roof Top			Mechanical Room Clean		
Filters Installed Properly		N/A	Filters Clean		N/A	Inside of HVAC Unit Clean		N/A
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location			Roof top ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			No ▼					

Observations

At the time of the assessment, there was an additional portable HVAC system in use. Due to the HVAC project, (replacement of HVAC system) underway in this area, and the dampness in the carpet due to elevated humidity. I recommend replacement of the carpet. Above the drop ceiling is the return air plenum, in areas of the ceiling grid there is accumulated dust buildup. Approximately 4500 sq ft of carpet in 115, 115A & 115C. The new units are to be installed sometime in February 2013. I recommend that the PPO duct cleaning crew schedule the duct cleaning after the new units have been installed. Schedule with Frank Girardi

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean horizontal surfaces	▼
Clean HVAC supply grills with Wexcide	▼
Vacuum return grill	▼
Clean dust from perimeter ceiling grid	▼
Clean dust from ceiling tiles or replace	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC supply drops	▼
Evaluate carpet for replacement with tile	▼
	▼
	▼
See observations for additional info	▼
	▼
	▼
	▼

IAQ Assessment

McArthur High

Evaluation Date November 14, 2012

Time of Day 10:15

Outdoor Conditions Temperature 84.3

Relative Humidity 59.5

Ambient CO2 428

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
115C	72.9	72 - 78	64.5	30% - 60%	980	MAX 700 > Ambient		
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' x 4'		No		No			
Walls	Drywall		No		No			
Floor	Carpet / VCT		Yes		No		minor	
Ceiling Clean		Yes	HVAC Supply Grills Clean		No	HVAC Return Grills Clean		No
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean		N/A
Flooring Clean		No	Ceiling at Supply Grills Clean		No			
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		No	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location			Roof Top			Mechanical Room Clean		
Filters Installed Properly		N/A	Filters Clean		N/A	Inside of HVAC Unit Clean		N/A
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location			Roof top ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			No ▼					

Observations

At the time of the assessment, there was an additional portable HVAC system in use. Due to the HVAC project, (replacement of HVAC system) underway in this area, and the dampness in the carpet due to elevated humidity. I recommend replacement of the carpet. Above the drop ceiling is the return air plenum, in areas of the ceiling grid there is accumulated dust buildup. Approximately 4500 sq ft of carpet in 115, 115A & 115C. The new units are to be installed sometime in February 2013. I recommend that the PPO duct cleaning crew schedule the duct cleaning after the new units have been installed. Schedule with Frank Girardi

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean horizontal surfaces	▼
Clean HVAC supply grills with Wexcide	▼
Vacuum return grill	▼
Clean dust from perimeter ceiling grid	▼
Clean dust from ceiling tiles or replace	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC supply drops	▼
Evaluate carpet for replacement with tile	▼
	▼
See observations for additional info	▼
	▼
	▼
	▼
	▼