

Aston A. Henry, Task Assigned Director
Risk Management Department

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April 22, 2013

Signature on File

TO: Wendy Doll, Principal
Cooper City 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 March 25, 2013, I conducted an assessment at **Cooper City 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, 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, Task Assigned Director, Risk Management
Sonja Coley, Senior Project Manager, Facilities Design and Construction
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

Cooper City High

Evaluation Date March 25, 2013

Time of Day 11:00

Outdoor Conditions Temperature 77.3

Relative Humidity 69.2

Ambient CO2 414

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
238	69.8	72 - 78	62.1	30% - 60%	414	MAX 700 > Ambient		
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' x 4'	Yes	No		No		< 3 sq ft	
Walls	Drywall	Yes	No		No		< 2 sq ft baseboard	
Floor	12" x 12" Vinyl	No	No		No			
Ceiling Clean		No	HVAC Supply Grills Clean		No	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			Roof Top			Mechanical Room Clean		N/A
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

The HFSP states that there is puddling of water on the floor adjacent to the West wall, between cabinetry and the North exit door. This seems to be happening when it's raining. Possible roof leak, however, on the opposite side of the wall, there is a classroom with wall cabinetry with sinks, evaluate the plumbing in the cabinetry for leaks. See Jamie (HFSP) for exact locations. The ceiling stains are adjacent to the South wall of the classroom.

Corrective Actions to be Completed by Site Based Staff

Replace stained ceiling tiles after repairs	▼
Clean HVAC supply grills with Wexcide	▼
Clean ceilings around HVAC supply grills	▼
Vacuum/wipe HVAC return grill	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tiles	▼
Evaluate and repair cause of water damage	▼
Remove and replace material as necessary	▼
PPO Plumbers evaluate leaks in cabinetry	▼
Roofers evaluate for possible leaks	▼
Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
	▼

IAQ Assessment

Cooper City High

Evaluation Date

Time of Day

Outdoor Conditions Temperature

Relative Humidity

Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
<input type="text" value="263"/>	<input type="text" value="70.3"/>	<input type="text" value="72 - 78"/>	<input type="text" value="77.8"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="411"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<input type="text" value="2' x 2'"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="10 ceiling stains"/>
Walls	<input type="text" value="Plaster"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input 15="" ft)"="" sq="" type="text" value("<=""/>
Floor	<input 12"="" type="text" value="12" vinyl)"="" x=""/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>

Ceiling Clean	<input type="text" value="No"/>	HVAC Supply Grills Clean	<input type="text" value="No"/>	HVAC Return Grills Clean	<input type="text" value="No"/>
Walls Clean	<input type="text" value="No"/>	Inside of Supply Duct Clean	<input type="text" value="N/A"/>	Inside of Return Duct Clean	<input type="text" value="N/A"/>
Flooring Clean	<input type="text" value="Yes"/>	Ceiling at Supply Grills Clean	<input type="text" value="No"/>		
Room Surfaces Clean	<input type="text" value="Yes"/>				

Trash Removed	<input type="text" value="Yes"/>	Exhaust Fans Working	<input type="text" value="N/A"/>	Unapproved Chemicals / Cleaners in Room	<input type="text" value="No"/>
Signs of Pests	<input type="text" value="No"/>	Drain Traps Wet	<input type="text" value="N/A"/>	Air Fresheners in Room	<input type="text" value="No"/>
Room Cluttered	<input type="text" value="No"/>	Food if Stored in Room is in Sealed Containers	<input type="text" value="N/A"/>		

Mechanical Equipment Location	<input type="text" value="Roof Top"/>			Mechanical Room Clean	<input type="text" value="N/A"/>
Filters Installed Properly	<input type="text" value="Yes"/>	Filters Clean	<input type="text" value="Yes"/>	Inside of HVAC Unit Clean	<input type="text" value="Yes"/>
Condensate Pan Clean	<input type="text" value="Yes"/>	Cooling Coil Clean	<input type="text" value="Yes"/>		

Fresh Air Intake Location	<input type="text" value="Roof top"/>	Fresh Air Intake Free of Obstruction	<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake	<input type="text" value="No"/>		

Observations

The East wall, south of the double doors has water damaged wall board. Also the North wall in 263C & 263D has water damaged wall surfaces. Custodian states that PPO had just completed preventative maintenance on all the rooftop HVAC units.

Corrective Actions to be Completed by Site Based Staff

Replace stained ceiling tiles after repairs	▼
Clean HVAC supply grills with Wexcide	▼
Clean ceilings around HVAC supply grills	▼
Vacuum/wipe HVAC return grill	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tiles	▼
Evaluate and repair cause of water damage	▼
Remove and replace wall material as necessary	▼
Repair HVAC to reduce humidity level	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Cooper City High

Evaluation Date

Time of Day

Outdoor Conditions Temperature

Relative Humidity

Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
<input type="text" value="266"/>	<input type="text" value="69.0"/>	<input type="text" value="72 - 78"/>	<input type="text" value="61.5"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="408"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<input type="text" value="2' x 2'"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="various ceiling stains"/>
Walls	<input type="text" value="Plaster / Drywall"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input 2="" ft)"="" sq="" type="text" value("<=""/>
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>

Ceiling Clean	<input type="text" value="No"/>	HVAC Supply Grills Clean	<input type="text" value="No"/>	HVAC Return Grills Clean	<input type="text" value="No"/>
Walls Clean	<input type="text" value="No"/>	Inside of Supply Duct Clean	<input type="text" value="Yes"/>	Inside of Return Duct Clean	<input type="text" value="Yes"/>
Flooring Clean	<input type="text" value="Yes"/>	Ceiling at Supply Grills Clean	<input type="text" value="No"/>		
Room Surfaces Clean	<input type="text" value="Yes"/>				

Trash Removed	<input type="text" value="Yes"/>	Exhaust Fans Working	<input type="text" value="N/A"/>	Unapproved Chemicals / Cleaners in Room	<input type="text" value="No"/>
Signs of Pests	<input type="text" value="Yes"/>	Drain Traps Wet	<input type="text" value="No"/>	Air Fresheners in Room	<input type="text" value="No"/>
Room Cluttered	<input type="text" value="No"/>	Food if Stored in Room is in Sealed Containers	<input type="text" value="N/A"/>		

Mechanical Equipment Location	<input type="text" value="Roof Top"/>			Mechanical Room Clean	<input type="text" value="N/A"/>
Filters Installed Properly	<input type="text" value="Yes"/>	Filters Clean	<input type="text" value="Yes"/>	Inside of HVAC Unit Clean	<input type="text" value="Yes"/>
Condensate Pan Clean	<input type="text" value="Yes"/>	Cooling Coil Clean	<input type="text" value="Yes"/>		

Fresh Air Intake Location	<input type="text" value="Roof top"/>	Fresh Air Intake Free of Obstruction	<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake	<input type="text" value="No"/>		

Observations

The ceiling stains are located adjacent to the West wall, Schools staff will wipe the wall staining with wexcide that is located above the cabinetry adjacent to the West wall. Insect traps are located in this occupied area, this area is a home economics classroom/kitchen.

Corrective Actions to be Completed by Site Based Staff

Replace stained ceiling tiles after repairs	▼
Clean HVAC supply grills with Wexcide	▼
Clean ceilings around HVAC supply grills	▼
Vacuum/wipe HVAC return grill	▼
Ensure water is poured down drains regularly	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tiles	▼
Set temperature to 72 - 78 degrees	▼
Repair HVAC to reduce humidity level	▼
	▼
	▼
	▼
	▼