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Risk Management Department

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May 20, 2013

Signature on File

TO: Karlton Johnson, Principal
Blanche Ely High School

FROM: Robert Krickovich, Coordinator I, LEA
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 April 23, 2013, I conducted an assessment at **Blanche Ely 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: 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

RK/tc
Enc.

IAQ Assessment

Blanche Ely High

Evaluation Date April 23, 2013

Time of Day 12:45

Outdoor Conditions Temperature 80.7

Relative Humidity 52.2

Ambient CO2 457

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
112	78.0	72 - 78	52.8	30% - 60%	1366	MAX 700 > Ambient	28
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No			
Ceiling	2' X 4' Lay in		No	No			
Walls	Plaster / Carpet		Yes	No	220 Sq ft		
Floor	Carpet		No	No			

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	No	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 167C	Mechanical Room Clean	No
Filters Installed Properly	Yes	Filters Clean	No
Condensate Pan Clean	Yes	Cooling Coil Clean	No
		Inside of HVAC Unit Clean	No

Fresh Air Intake Location	Roof top ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	None ▼		

Observations

North wall severely water damaged (wet) - walls dusty in front of HVAC supply grills - Carpet stained / dirty (PPO evaluate) - Humidity slightly elevated - CO2 slightly elevated - FISH 167C - Walls extremely dusty - Filters extremely dirty - coils dusty.

Corrective Actions to be Completed by Site Based Staff

Clean dust from wall surfaces	▼
Clean HVAC return grills with Wexcide	▼
Thoroughly clean stained carpet	▼
Replace A/C filters per District schedule	▼
Clean Mechanical Room walls	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate carpet	▼
Repair HVAC to reduce humidity level	▼
Repair HVAC to reduce CO2 level	▼
Clean HVAC unit	▼
Evaluate and repair cause of water damage to wall material	▼
Remove and replace wall material as necessary	▼
	▼

IAQ Assessment

Blanche Ely High

Evaluation Date April 23, 2013

Time of Day 12:45

Outdoor Conditions Temperature 80.7

Relative Humidity 52.2

Ambient CO2 457

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
113	72.6	72 - 78	56.4	30% - 60%	1258	MAX 700 > Ambient	17
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		3 tiles
Walls	Plaster		Yes		No		150 Sq Ft
Floor	Carpet		No		No		
Ceiling Clean		Yes	HVAC Supply Grills Clean		No		HVAC Return Grills Clean No
Walls Clean		No	Inside of Supply Duct Clean		Yes		Inside of Return Duct Clean No
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			FISH 167C			Mechanical Room Clean No	
Filters Installed Properly		Yes	Filters Clean		No		Inside of HVAC Unit Clean No
Condensate Pan Clean		Yes	Cooling Coil Clean		No		
Fresh Air Intake Location			Roof top ▼			Fresh Air Intake Free of Obstruction Yes	
Pollutant Sources Near Air Intake			None ▼				

Observations

Northeast wall severely water damaged (wet) - walls dusty - HEAVY dust on all surfaces in room - Room EXTREMELY DIRTY - Carpet stained / dirty (PPO evaluate) - Humidity slightly elevated - CO2 slightly elevated - FISH 167C - Walls extremely dusty - Filters extremely dirty - coils dusty.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Thoroughly clean stained carpet	▼
Clean ceilings around HVAC supply grills	▼
Clean HVAC supply and return grills with Wexcide	▼
Remove and replace A/C filters	▼
Clean Mechanical Room walls	▼
Remove and replace stained ceiling tiles	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate carpet	▼
Repair HVAC to reduce humidity level	▼
Repair HVAC to reduce CO2 level	▼
Clean HVAC unit	▼
Evaluate and repair cause of water damage	▼
Remove and replace wall material as necessary	▼
Evaluate and repair cause of stained ceiling tiles	▼
	▼

IAQ Assessment

Blanche Ely 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="113A"/>	<input type="text" value="71.0"/>	<input type="text" value="72 - 78"/>	<input type="text" value="56.8"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="1262"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="5"/>
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 4' Lay in"/>		<input type="text" value="Yes"/>		<input type="text" value="Yes"/>		<input type="text" value="3 stained - 2 W/ Microbial"/>
Walls	<input type="text" value="Plaster"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>
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="N/a"/>
Walls Clean	<input type="text" value="No"/>	Inside of Supply Duct Clean		<input type="text" value="No"/>	Inside of Return Duct Clean		<input type="text" value="N/A"/>
Flooring Clean	<input type="text" value="No"/>	Ceiling at Supply Grills Clean		<input type="text" value="No"/>			
Room Surfaces Clean	<input type="text" value="No"/>						
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="Yes"/>	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="FISH 167C"/>					Mechanical Room Clean	<input type="text" value="No"/>
Filters Installed Properly	<input type="text" value="Yes"/>	Filters Clean		<input type="text" value="No"/>	Inside of HVAC Unit Clean		<input type="text" value="No"/>
Condensate Pan Clean	<input type="text" value="Yes"/>	Cooling Coil Clean		<input type="text" value="No"/>			
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="None"/>						

Observations

HEAVY dust and debris throughout the room - 3 stained ceiling tiles (2 with microbial growth) - ceiling tiles dirty and dusty - 3 tiles missing - HEAVY dust on HVAC supply grill and ceiling around supply grill - No return in room (PPO evaluate) - Humidity slightly elevated - CO2 slightly elevated - FISH 167C - Walls extremely dusty - Filters extremely dirty - coils dusty.

Corrective Actions to be Completed by Site Based Staff

Clean dust and debris from ceilings	▼
Replace missing ceiling tiles	▼
Replace water damaged ceiling tiles	▼
Thoroughly clean all surfaces	▼
Clean ceilings around HVAC supply grills	▼
Clean HVAC supply grills with Wexcide	▼
Remove and replace A/C filters	▼
Clean Mechanical Room walls	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tiles	▼
Repair HVAC to reduce humidity level	▼
Repair HVAC to reduce CO2 level	▼
Clean HVAC unit	▼
	▼
	▼
	▼
	▼