

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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August 1, 2017

Signature on File

TO: Vivian Suarez, Principal
Coral Springs High

FROM: Daniel Meyer, Project Manger
Environmental Health & Safety Department

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
<hr/>	
<hr/>	

On July 31, 2017, I conducted an assessment at **Coral Springs 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 754-321-4200.

DM:smn
Enc.

- cc: Sam Bays, Director, Maintenance Operations
- Shelley Meloni, Director, Pre-Construction
- Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
- Greg Neiman, Area Supervisor, Zone 1
- Kurt Wirz, Area Manager Trades
- Gerald Devio, Supervisor II Custodial
- Benjamin Osborne, Supervisor II Custodial
- Mark Murray, Supervisor II Custodial
- Broward Teachers Union
- Federation of Public Employees

IAQ Assessment

Coral Springs High

Evaluation Date July 31, 2017

Time of Day 10 AM

Outdoor Conditions Temperature 83.1

Relative Humidity 99.1

Ambient CO2 427

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
122	69.9	72 - 78	79.9	30% - 60%	717	MAX 700 > Ambient	2
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No							
Ceiling	2' X 4' Lay in						
Walls	Drywall						
Floor	Carpet						

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No
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	FISH #129		Mechanical Room Clean	No	
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	Ducted to roof-top ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No ▼		

Observations

OFFICE - recently cleaned by occupant. Ceiling grid needs to be cleaned by supply grill. Return duct needs to be vacuumed. Mechanical Room needs to be cleaned and stored items need to be removed (open air)

Corrective Actions to be Completed by Site Based Staff

Clean dust and debris from ceilings	▼
Clean Mechanical Room and remove stored items	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
Evaluate fresh dampers in the mechanical room	▼
Repair chilled water insulation	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Coral Springs 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="123"/>	<input type="text" value="70.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="78.1"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="750"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="1"/>
Noticeable Odor		<input type="text" value="Yes"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<input type="text" value="2' X 4' Lay in"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		
Walls	<input type="text" value="Drywall"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		
Floor	<input type="text" value="Carpet"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		

Ceiling Clean	<input type="text" value="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="Yes"/>
Walls Clean	<input type="text" value="Yes"/>	Inside of Supply Duct Clean	<input type="text" value="Yes"/>	Inside of Return Duct Clean	<input type="text" value="No"/>
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="Yes"/>	Food if Stored in Room is in Sealed Containers	<input type="text" value="N/A"/>		

Mechanical Equipment Location	<input type="text" value="FISH #129"/>		Mechanical Room Clean	<input type="text" value="No"/>	
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="Ducted to roof-top"/>	Fresh Air Intake Free of Obstruction	<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake	<input type="text" value="No"/>		

Observations

OFFICE - REMOVE ITEMS STORED ON FLOOR SO OFFICE CAN BE CLEANED PROPERLY. Ceiling grid needs to be cleaned by supply grill. Return duct needs to be vacuumed. Mechanical Room needs to be cleaned and stored items need to be removed (open air)

Corrective Actions to be Completed by Site Based Staff

Store items in plastic containers with lids	▼
Remove items on floor	▼
Thoroughly Clean Office once items are removed	▼
Clean Mechanical Room and remove stored items	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
Evaluate fresh dampers in the mechanical room	▼
Repair chilled water insulation	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Coral Springs 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="425"/>	<input type="text" value="65.8"/>	<input type="text" value="72 - 78"/>	<input type="text" value="81.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="447"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="1"/>

Noticeable Odor	<input type="text" value="No"/>	Visible water damage / staining?	<input type="text"/>
Visible microbial growth?	<input type="text"/>	Amount of material affected	<input type="text"/>
Ceiling	<input type="text" value="2' X 4' Lay in"/>		<input type="text"/>
Walls	<input type="text" value="Drywall"/>		<input type="text"/>
Floor	<input type="text" value="Carpet"/>		<input type="text"/>

Ceiling Clean	<input type="text" value="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="Yes"/>
Walls Clean	<input type="text" value="Yes"/>	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="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"/>	Mechanical Room Clean	<input type="text"/>
Filters Installed Properly	<input type="text"/>	Filters Clean	<input type="text"/>
Condensate Pan Clean	<input type="text"/>	Cooling Coil Clean	<input type="text"/>
		Inside of HVAC Unit Clean	<input type="text"/>

Fresh Air Intake Location	<input type="text"/>	Fresh Air Intake Free of Obstruction	<input type="text"/>
Pollutant Sources Near Air Intake	<input type="text"/>		

Observations

BAND ROOM

Corrective Actions to be Completed by Site Based Staff

<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	<input type="text" value="▼"/>
Set Temperature to 72 - 78 degrees	<input type="text" value="▼"/>
Evaluate fresh dampers in the mechanical room	<input type="text" value="▼"/>
Check controls for outside air damper	<input type="text" value="▼"/>
Ceiling tile cuts needed around supply vents	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>
<input type="text"/>	<input type="text" value="▼"/>

IAQ Assessment

Coral Springs 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="531"/>	<input type="text" value="67.9"/>	<input type="text" value="72 - 78"/>	<input type="text" value="80.0"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="455"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="1"/>
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"/>	<input type="text"/>	<input type="text"/>		
Walls	<input type="text" value="Drywall"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		

Ceiling Clean	<input type="text" value="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="Yes"/>
Walls Clean	<input type="text" value="Yes"/>	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="Yes"/>		
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="FISH #533"/>		Mechanical Room Clean	<input type="text" value="Yes"/>	
Filters Installed Properly	<input type="text" value="No"/>	Filters Clean	<input type="text" value="No"/>	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="Ducted to roof-top"/>	Fresh Air Intake Free of Obstruction	<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake	<input type="text" value="No"/>		

Observations

Spot checked classrooms throughout the Facility. Classroom recently cleaned. Both belts for AHU were broken. Installed belts but belt guard needs to be installed. Outside air damper did not operate.

Corrective Actions to be Completed by Site Based Staff

Install proper filters, tape and date.	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
Evaluate fresh dampers in the mechanical room	▼
Install belt guard for AHU	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Coral Springs 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="542"/>	<input type="text" value="67.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="77.3"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="537"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="1"/>
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"/>	<input type="text"/>	<input type="text"/>		
Walls	<input type="text" value="Drywall"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text"/>	<input type="text"/>	<input type="text"/>		

Ceiling Clean	<input type="text" value="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="Yes"/>
Walls Clean	<input type="text" value="Yes"/>	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="Yes"/>		
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"/>	Mechanical Room Clean	<input type="text"/>
Filters Installed Properly	<input type="text"/>	Filters Clean	<input type="text"/>
Condensate Pan Clean	<input type="text"/>	Cooling Coil Clean	<input type="text"/>
		Inside of HVAC Unit Clean	<input type="text"/>

Fresh Air Intake Location	<input type="text"/>	Fresh Air Intake Free of Obstruction	<input type="text"/>
Pollutant Sources Near Air Intake	<input type="text"/>		

Observations

Spot checked classrooms throughout the Facility. Ceiling tiles around the supply grills need to be replaced

Corrective Actions to be Completed by Site Based Staff

	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
Evaluate fresh dampers in the mechanical room	▼
Ceiling tile cuts needed around supply vents	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Coral Springs 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="621"/>	<input type="text" value="66.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="74.3"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="450"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="1"/>

Noticeable Odor	<input type="text" value="No"/>	Visible water damage / staining?	<input type="text"/>
Visible microbial growth?	<input type="text"/>	Amount of material affected	<input type="text"/>
Ceiling	<input type="text" value="2' X 4' Lay in"/>		<input type="text"/>
Walls	<input type="text" value="Drywall"/>		<input type="text"/>
Floor	<input type="text" value="Carpet"/>		<input type="text"/>

Ceiling Clean	<input type="text" value="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="Yes"/>
Walls Clean	<input type="text" value="Yes"/>	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="Yes"/>		
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="FISH #619"/>	Mechanical Room Clean	<input type="text" value="Yes"/>
Filters Installed Properly	<input type="text" value="No"/>	Filters Clean	<input type="text" value="Yes"/>
Condensate Pan Clean	<input type="text" value="Yes"/>	Cooling Coil Clean	<input type="text" value="Yes"/>
		Inside of HVAC Unit Clean	<input type="text" value="Yes"/>

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

Observations

LIBRARY - A/C Unit controls not working properly. Tops of the books need to be cleaned.

Corrective Actions to be Completed by Site Based Staff

Install proper filters, tape and date.	<input type="text" value="▼"/>
Thoroughly Clean Area - shelves and book tops	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	<input type="text" value="▼"/>
Set Temperature to 72 - 78 degrees	<input type="text" value="▼"/>
Evaluate fresh dampers in the mechanical room	<input type="text" value="▼"/>
Check controls for outside air damper	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>
	<input type="text" value="▼"/>

