

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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December 7, 2017

Signature on File

TO: Robert Pappas, Principal
Gulfstream Academy of Hallandale Beach

FROM: Alison Witoshynsky, Project Manager
Environmental Health & Safety Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

For Custodial Supervisor Use Only

Custodial Issues Addressed

Custodial Issues Not Addressed

On December 6, 2017, I conducted an assessment at **Gulfstream Academy of Hallandale Beach 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.

AW: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

Gulfstream Academy of Hallandale Beach

Evaluation Date December 6, 2017

Time of Day 11:15 AM

Outdoor Conditions Temperature 81.1

Relative Humidity 65.5

Ambient CO2 402

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
1	72.1	72 - 78	63.0	30% - 60%	405	MAX 700 > Ambient	0
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="checkbox"/> Yes		<input type="checkbox"/> Yes		<input type="checkbox"/> Yes		<input type="text" value="Multiple CT throughout"/>	
Ceiling	<input type="text" value="2' X 4' Lay in"/>		<input type="checkbox"/> Yes	<input type="checkbox"/> No		<input type="text"/>	
Walls	<input type="text" value="Drywall"/>		<input type="checkbox"/> Yes	<input type="checkbox"/> No		<input type="text"/>	
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="checkbox"/> No	<input type="checkbox"/> No		<input type="text"/>	
Ceiling Clean	<input type="checkbox"/> No	HVAC Supply Grills Clean	<input type="checkbox"/> Yes	HVAC Return Grills Clean	<input type="checkbox"/> Yes		
Walls Clean	<input type="checkbox"/> Yes	Inside of Supply Duct Clean	<input type="checkbox"/> No	Inside of Return Duct Clean	<input type="checkbox"/> No		
Flooring Clean	<input type="checkbox"/> No	Ceiling at Supply Grills Clean	<input type="checkbox"/> No				
Room Surfaces Clean	<input type="checkbox"/> No						
Trash Removed	<input type="checkbox"/> No	Exhaust Fans Working	<input type="checkbox"/> N/A	Unapproved Chemicals / Cleaners in Room	<input type="checkbox"/> No		
Signs of Pests	<input type="checkbox"/> No	Drain Traps Wet	<input type="checkbox"/> N/A	Air Fresheners in Room	<input type="checkbox"/> No		
Room Cluttered	<input type="checkbox"/> No	Food if Stored in Room is in Sealed Containers	<input type="checkbox"/> N/A				
Mechanical Equipment Location	<input type="text" value="In classroom HVAC unit"/>				Mechanical Room Clean	<input type="checkbox"/> N/A	
Filters Installed Properly	<input type="checkbox"/> No	Filters Clean	<input type="checkbox"/> N/A	Inside of HVAC Unit Clean	<input type="checkbox"/> No		
Condensate Pan Clean	<input type="checkbox"/> N/A	Cooling Coil Clean	<input type="checkbox"/> N/A				
Fresh Air Intake Location	<input type="text" value="Thru exterior wall"/>				Fresh Air Intake Free of Obstruction	<input type="checkbox"/> Yes	
Pollutant Sources Near Air Intake	<input type="text" value="No"/>						

Observations

IAQ PROTOCOL NOT COMPLETED PRIOR TO ASSESSMENT. No Occupants, should not be reoccupied until repaired. Two (2) ACs present in room. On Continuous @ 73 degrees F. No filters in units, interior of units including coil dusty. Wall wet under AC @ 4 feet below and 1 to 2 wide. Multiple (21) ceiling tiles stained throughout. Musty odor upon entry. Two closets on east side.

1) electronic/communication closet with AC not operating (warm in space). Multiple stained ceiling tiles

2) storage/office. Ceiling tiles missing/stained, damaged insulation. Roach on ceiling tiles.

Corrective Actions to be Completed by Site Based Staff

Clean Inside of Wall A/C with Wexcide	▼
Encourage occupant to reduce clutter, unused or damaged materials/items	▼
Thoroughly clean ALL surfaces	▼
Remove and replace A/C Filters per schedule	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Evaluate and repair cause of stained ceiling tile	▼
Remove and replace stained ceiling tiles	▼
Install new ceiling tile upon repair, cuts needed	▼
Evaluate and repair cause of water damaged wall & ceiling material	▼
Work order needed for pest control	▼

IAQ Assessment

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Relative Humidity 65.5

Ambient CO2 402

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
128N	72.0	72 - 78	46.2	30% - 60%	1222	MAX 700 > Ambient	0
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	Homasote		Yes		Yes		by A/C
Walls	Homasote		No		No		
Floor	12" x 12" Vinyl		No		No		
Ceiling Clean		No	HVAC Supply Grills Clean		Yes	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			In classroom HVAC unit			Mechanical Room Clean	
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean	
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A		
Fresh Air Intake Location			Thru exterior wall ▼			Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake			No ▼			Yes	

Observations

Occupant entered in the middle of the inspection. Reports that the two AC are always on, if it gets too cold the doors are opened. Inside of AC dusty. Three ceiling panels (2 near ACs and 1 near West Entrance Door) are stained and/or wet. Two light ends near ACs have dust and or suspect visible mold on light and/or on ceiling behind light. Elevated surfaces and electronics (TV) have light dust layer. Fragrance odor detected, but could not be identified.

Corrective Actions to be Completed by Site Based Staff

Vacuum/wexcide window unit grills & inside	▼
Thoroughly clean elevated & horizontal surfaces	▼
Remove air fresheners	▼
Ensure doors and windows remain closed	▼
Remove and replace A/C Filters per schedule	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Remove and replace ceiling material as needed	▼
Evaluate and repair cause of water damaged	▼
& stained ceiling materials	▼
Repair HVAC to Reduce CO2 Levels	▼
	▼
	▼
	▼

IAQ Assessment

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Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
136	70.8	72 - 78	60.1	30% - 60%	850	MAX 700 > Ambient	3
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
2' X 4' Lay in		Plaster / Drywall		12" x 12" Vinyl			
No		No		No			

Ceiling Clean	No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	N/A	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	Yes	Drain Traps Wet	N/A	Air Fresheners in Room	No
Room Cluttered	Yes	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	HVAC system is recessed in drop ceiling	Mechanical Room Clean	N/A
Filters Installed Properly	N/A	Filters Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A
		Inside of HVAC Unit Clean	No

Fresh Air Intake Location	Exterior corridor ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No ▼		

Observations

Occupant reports that lip swelled during move into space. Personal items and horizontal surfaces have light dusty layer throughout the space. Cardboard boxes are present in room and in adjacent closet/office. Other paper based projects and items are present throughout. Ceiling tiles look like installed backwards and have dirty marks on them. AC reportedly leaking, two trash cans in space. Ceiling tiles not placed properly in area near ceiling AC. Multiple Work Orders called in for AC repairs: EQ09567, J827257, J831911, J810189.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceiling tiles or replace	▼
Thoroughly clean horizontal surfaces	▼
Thoroughly clean ALL surfaces	▼
Encourage occupant to reduce clutter	▼
Remove cardboard boxes	▼
Ensure ceiling tiles are installed properly	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Set Temperature to 72 - 78 degrees	▼
Repair HVAC to Reduce Humidity Levels	▼
Clean entire HVAC system - unit and drops	▼
Clean fresh air damper at HVAC from hallway	▼
Evaluate fresh air damper/duct from roof to room	▼
	▼
	▼

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Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
395C	74.8	72 - 78	49.8	30% - 60%	2170	MAX 700 > Ambient	0
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		Two CT & light lense
Walls	Tack Board		No		No		
Floor	12" x 12" Vinyl		No		No		
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean Yes	
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean No	
Flooring Clean		Yes	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			In classroom HVAC unit			Mechanical Room Clean N/A	
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean No	
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A		
Fresh Air Intake Location			Thru exterior wall ▼			Fresh Air Intake Free of Obstruction Yes	
Pollutant Sources Near Air Intake			No ▼				

Observations

Two AC Units in portable. One constantly on and other cycling on/off. Two (2) ceiling tiles are stained, one behind projector needs cut. Most ceiling tiles are drooping from elevated humidity. Ceiling is generally clean/not dusty, but light lenses are stained at ends. Inside of AC are dusty.

Corrective Actions to be Completed by Site Based Staff

Vacuum/wexcide window unit grills & inside	▼
Ensure ceiling tiles are installed properly	▼
Remove and replace A/C Filters per schedule	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce CO2 Levels	▼
Remove and replace stained ceiling tiles	▼
Install new ceiling tile upon repair, cuts needed	▼
	▼
	▼
	▼
	▼

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Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
896C	76.3	72 - 78	43.1	30% - 60%	2677	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		Yes		prev. stained CT / light lenses	
Walls	Tack Board		No		No			
Floor	12" x 12" Vinyl		No		No			
Ceiling Clean		No	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		Yes
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean		No
Flooring Clean		No	Ceiling at Supply Grills Clean		No			
Room Surfaces Clean		No						
Trash Removed		No	Exhaust Fans Working		N/A	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests		Yes	Drain Traps Wet		N/A	Air Fresheners in Room		No
Room Cluttered		Yes	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location			In classroom HVAC unit			Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean		No
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location			Thru exterior wall ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			No ▼					

Observations

Two (2) AC units for space. Only one on at time of inspection. Occupant reports that the one at the front of the room is off b/c it is too loud when on and the students cannot hear the teacher. Occupant has bookshelf with lots of items. Limited access to clean bookshelf, need to coordinate with facility staff to adequately clean. Other items stored at back of room could be contributing to dusty/dirt. Trash very full. Wood deteriorating around ACs, gaps present to outside. Occupant reported ceiling tile near stained light recently changed; confirm roof repaired.

Corrective Actions to be Completed by Site Based Staff

Vacuum/wexcide window unit grills & inside	▼
Thoroughly clean inside of lights incl. lenses	▼
Encourage occupant to reduce clutter	▼
Room too cluttered to clean properly	▼
Thoroughly clean horizontal & elevated surfaces	▼
Remove and replace A/C Filters per schedule	▼
Remove and replace stained ceiling tile	▼
Ensure ceiling tiles are installed properly	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tile,	▼
stained light lenses	▼
Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce CO2 Levels	▼
Evaluate noisy AC for repair or replacement	▼
Remove and replace material around ACs	▼
	▼
	▼

IAQ Assessment

Gulfstream Academy of Hallandale Beach

Evaluation Date December 6, 2017

Time of Day 11:15 AM

Outdoor Conditions Temperature 81.1 Relative Humidity 65.5 Ambient CO2 402

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
897C	77.4	72 - 78	56.1	30% - 60%	2328	MAX 700 > Ambient	22
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		Yes		by A/C
Walls	Tack Board		No		No		
Floor	12" x 12" Vinyl		No		No		

Ceiling Clean	No	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	No	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	In classroom HVAC unit		Mechanical Room Clean	N/A	
Filters Installed Properly	Yes	Filters Clean	No	Inside of HVAC Unit Clean	No
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A		

Fresh Air Intake Location	Thru exterior wall ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No ▼		

Observations

Two (2) AC units for space. Only one on at time of inspection, west off and east on. East AC filter is dirty. Inside of ACs dusty. Ceiling tiles and grid in front of ACs are dirty/rusty and have suspect visible mold. Change Ceiling tiles and redirect AC vents. Light fixture framing is rusty. Small area of flooring near teachers desk that is dirty.

Corrective Actions to be Completed by Site Based Staff

Vacuum/wexcide window unit grills & inside	▼
Remove and replace A/C Filters per schedule	▼
Thoroughly clean elevated surfaces	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce CO2 Levels	▼
Evaluate and repair cause of stained ceiling tile	▼
Install new ceiling tile upon repair, cuts needed	▼
	▼
	▼
	▼
	▼