

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

TELEPHONE (754) 321-4200

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September 20, 2017

Signature on File

TO: Christine Henschel, Principal
South Plantation High

FROM: Alison Witoshynsky, Project Manager
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/>	
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On September 19, 2017, I conducted an assessment at **South Plantation 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.

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

South Plantation High

Evaluation Date September 19, 2017

Time of Day 1:00 PM

Outdoor Conditions Temperature 86.5 Relative Humidity 75.0 Ambient CO2 557

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
296/297B	72.8	72 - 78	85.6	30% - 60%	758	MAX 700 > Ambient	1
Noticeable Odor		<input type="checkbox"/> Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		<input type="checkbox"/> No		<input type="checkbox"/> No		<input style="width: 100%;" type="text"/>
Walls	Tack Board		<input type="checkbox"/> No		<input type="checkbox"/> Yes		<input style="width: 100%;" type="text"/>
Floor	Carpet		<input type="checkbox"/> No		<input type="checkbox"/> No		<input style="width: 100%;" type="text"/>

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

Trash Removed	<input type="checkbox"/> Yes	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	FISH 299		Mechanical Room Clean	<input type="checkbox"/> Yes	
Filters Installed Properly	<input type="checkbox"/> Yes	Filters Clean	<input type="checkbox"/> Yes	Inside of HVAC Unit Clean	<input type="checkbox"/> No
Condensate Pan Clean	<input type="checkbox"/> Yes	Cooling Coil Clean	<input type="checkbox"/> No		

Fresh Air Intake Location	Roof top ▼	Fresh Air Intake Free of Obstruction	<input type="checkbox"/> N/A
Pollutant Sources Near Air Intake	Not readily accessible ▼		

Observations

FISH 296 is entry/foyer to other classroom/offices. Musty odor present, but no wet building materials.

FISH 297B is adjacent office. Growth on tack board in two locations and elevated relative humidity.

Corrective Actions to be Completed by Site Based Staff

Wipe wall with wexcide and evaluate/monitor	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC return grills and drops	▼
Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Evaluate/Repair HVAC dampers & exhaust interlocks	▼
	▼
	▼
	▼
	▼
	▼

IAQ Assessment

South Plantation High

Evaluation Date September 19, 2017

Time of Day 1:00 PM

Outdoor Conditions Temperature 86.5 Relative Humidity 75.0 Ambient CO2 557

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
297	73.4	72 - 78	83.8	30% - 60%	775	MAX 700 > Ambient	12
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
2' X 4' Lay in		Tack Board		Carpet		No	
No		Yes		N/A		2 Ceiling tiles, painted	
No		No		No			
No		No		No			

Ceiling Clean	No	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
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	Yes	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 299	Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters Clean	Yes
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	N/A
Pollutant Sources Near Air Intake	Not readily accessible ▼		

Observations

Classroom. Return vent is dusty and the ceiling tiles surrounding the supply vent are dusty/stained. The relative humidity is very high. Lots of books and other items throughout space; however, the surfaces are generally well maintained and clean. Stained carpet near the exterior door, but carpet dry.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceiling tiles or replace	▼
Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC return grills and drops	▼
Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Evaluate/Repair HVAC dampers & exhaust interlocks	▼
Install new ceiling tile upon repair, cuts needed	▼
	▼
	▼

IAQ Assessment

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Outdoor Conditions Temperature 86.5 Relative Humidity 75.0 Ambient CO2 557

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
297A	72.8	72 - 78	85.6	30% - 60%	758	MAX 700 > Ambient	0
Noticeable Odor		<input type="checkbox"/> Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		<input type="checkbox"/> No		<input type="checkbox"/> No		<input style="width: 100%;" type="text"/>
Walls	Tack Board		<input type="checkbox"/> No		<input type="checkbox"/> No		<input style="width: 100%;" type="text"/>
Floor	Carpet		<input type="checkbox"/> No		<input type="checkbox"/> No		<input style="width: 100%;" type="text"/>

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

Trash Removed	<input type="checkbox"/> Yes	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	FISH 299		Mechanical Room Clean	<input type="checkbox"/> Yes	
Filters Installed Properly	<input type="checkbox"/> Yes	Filters Clean	<input type="checkbox"/> Yes	Inside of HVAC Unit Clean	<input type="checkbox"/> No
Condensate Pan Clean	<input type="checkbox"/> Yes	Cooling Coil Clean	<input type="checkbox"/> No		

Fresh Air Intake Location	Roof top ▼	Fresh Air Intake Free of Obstruction	<input type="checkbox"/> N/A
Pollutant Sources Near Air Intake	Not readily accessible ▼		

Observations

Storage Room. Filled with books and other items. Cannot be cleaned properly.

- Corrective Actions to be Completed by Site Based Staff**
- | | |
|--------------------------------------|---|
| Room too cluttered to clean properly | ▼ |
| Encourage occupant to reduce clutter | ▼ |
| Remove items stored & not used | ▼ |
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- Corrective Actions to be Completed by PPO**
- | | |
|---|---|
| Clean HVAC return grills and drops | ▼ |
| Evaluate and repair HVAC system as needed | ▼ |
| Repair HVAC to Reduce Humidity Levels | ▼ |
| Evaluate/Repair HVAC dampers & exhaust interlocks | ▼ |
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IAQ Assessment

South Plantation High

Evaluation Date September 19, 2017

Time of Day 1:00 PM

Outdoor Conditions Temperature 86.5 Relative Humidity 75.0 Ambient CO2 557

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
298/314	73.5	72 - 78	83.0	30% - 60%	729	MAX 700 > Ambient	2	
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 4' Lay in		No		N/A			
Walls	Tack Board		No		No			
Floor	Carpet		Yes		No		staining by ext. door	
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		No
Walls Clean		Yes	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean		N/A
Flooring Clean		Yes	Ceiling at Supply Grills Clean		Yes			
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		Yes	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location			FISH 299			Mechanical Room Clean		Yes
Filters Installed Properly		Yes	Filters Clean		Yes	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		N/A
Pollutant Sources Near Air Intake			Not readily accessible ▼					

Observations

Classroom. Generally clean. Return vent in center of room is very dusty. The relative humidity is very high. Lots of books and other items throughout space; however, the surfaces are generally well maintained and clean. Previously reported microbial growth around desks which was cleaned and has not returned.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean elevated surfaces	▼
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	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean HVAC return grills and drops	▼
Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Evaluate/Repair HVAC dampers & exhaust interlocks	▼
	▼
	▼
	▼
	▼