

**THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA**

**ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT**

**TELEPHONE (754) 321-4200**

**FACSIMILE: (754) 321-4285**

September 26, 2017

Signature on File

TO: Heather DeVaughn, Principal  
**Manatee Bay Elementary**

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 25, 2017, I conducted an assessment at **Manatee Bay Elementary 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

# Multiple Room IAQ Assessment

Manatee Bay Elem. School

Evaluation Date

Time of Day

Outdoor Conditions    Temperature

Relative Humidity

Ambient CO2

## Fish # of rooms assessed

Bldg 80. FISH 871, 875, 876

Temperature Range in the Rooms Assessed was Between	<input type="text" value="70.1"/>	And	<input type="text" value="76.9"/>	Acceptable Range	72 - 78
Relative Humidity Range in the Rooms Assessed was Between	<input type="text" value="47.0"/>	And	<input type="text" value="66.6"/>	Acceptable Range	30% - 60%
Co <sup>2</sup> Range in the Rooms Assessed was between	<input type="text" value="930"/>	And	<input type="text" value="1592"/>	Acceptable Range	MAX 700 > Ambient

Noticeable Odor	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
<input type="text" value="No"/>			
Ceiling <input type="text" value="2' X 4' Lay in"/>	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="1 CT in FISH 871"/>
Walls <input type="text" value="Drywall"/>	<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="Yes"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="No"/>
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="Yes"/>		
Room Surfaces Clean	<input type="text" value="No"/>				

Trash Removed	<input type="text" value="Yes"/>	Exhaust Fans Working	<input type="text" value="Yes"/>	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="Yes"/>	Food if Stored in Room is in Sealed Containers	<input type="text" value="N/A"/>		

Exhaust fan operating, but not moving air very fast. Elevated surfaces and some bookshelves have dust layer.

# Multiple Room IAQ Assessment

Manatee Bay Elem. School

Evaluation Date September 25, 2017

Time of Day 10:45 AM

Outdoor Conditions    Temperature 84.8    Relative Humidity 80.1    Ambient CO2 583

## HVAC System

Mechanical Equipment Location FISH 864 & 865    Mechanical Room Clean Yes  
 Filters Installed Properly Yes    Filters Clean Yes    Inside of HVAC Unit Clean Yes  
 Condensate Pan Clean Yes    Cooling Coil Clean No    N/A in this section = Not Accessible

Fresh Air Intake Location Over top of Mech. Rm door ▼    Fresh Air Intake Free of Obstruction Yes  
 Pollutant Sources Near Air Intake No ▼

## Observations

FISH 876 significantly warmer than the other rooms evaluated. And reportedly temperature increases as the day goes on. Other two rooms with lower temperature had higher relative humidity.

FISH 871 and other rooms at the ends/corners of building have water intrusion during driving rains. Likely a result of window leaking behind drywall and styrofoam insulation. FISH 871 also has dust on upper wall that needs to be wiped clean.

All classrooms have return duct that is very dusty. Grill needs to be removed, cleaned, and inside drop vacuumed. All classrooms have lots of items, books, plastic containers and other decorations.

**Corrective Actions to be Completed by Site Based Staff**

Clean dust from upper wall surface	▼
Clean elevated and horizontal surfaces	▼
Remove and replace stained ceiling tile (FISH 871)	▼
Encourage occupant to reduce clutter	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Clean HVAC return grills and drops	▼
Evaluate and repair cause of water intrusion	▼
(window leak)	▼
Remove and replace wall material as needed	▼
Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼