

Aston A. Henry, Supervisor
Risk Management Department

Telephone: 754 321-1900
Fax: 754 321-1917

January 26, 2012

Signature on File

TO: Ms. Gail Silig, Principal
Griffin Elementary School

FROM: Richard Rosa, Project Manager
Facilities and Construction Management

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 October 3, 2011 I conducted an assessment at **Griffin 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 754-321-1907.

cc: Area Superintendent
Area Directors
Shelley Meloni, Executive Director, Facilities and Construction Management
Mark Dorsett, Acting Director, Physical Plant Operations Division, Maintenance
Sonja Coley, Project Manager III, Facilities and Construction Management
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Supervisor, Risk Management
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

Location Number 2851

Griffin Elementary School

Evaluation Requested September 23, 2011

Time of Day 1:30 PM

Evaluation Date October 3, 2011

Outdoor Conditions Temperature 90.3 Relative Humidity 47.5 Ambient CO2 445

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
004/005	75.1	72 - 78	56.7	30% - 60%	838	Max 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No		None	
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Drywall		No	No	None		
Flooring	12 x 12 Vinyl		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	No	Yes	Yes	Clean as appropriate
HVAC Return Grills	No	Yes	Yes	Clean as appropriate
Ceiling at Supply Grills	No	Yes	Yes	Clean as appropriate
Surfaces in Room	Yes	No	No	

Observations

Findings

- Advised by staff the chemical plant located next door delivers a foul odor in the morning and outdoor activities are postponed until the odor fades.
- No signs of water intrusion or microbial growth
- Dust build up inside HVAC supply and return drops in corridors
- Odor coming from AHU's that service FISH 004 and 005 - units are only two years old

Site Based Maintenance:

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Clean HVAC supply and return drops in corridors
- Evaluate AHU that services FISH 004 and 005 to identify possible odor source

- NOTE: Work orders EQ02203 and EQ02205 generated 11/7/2011

IAQ Assessment

Location Number 2851

Griffin Elementary School

Evaluation Requested September 23, 2011

Time of Day 1:30 PM

Evaluation Date October 3, 2011

Outdoor Conditions Temperature 90.3 Relative Humidity 47.5 Ambient CO2 445

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
101	73.3	72 - 78	50.6	30% - 60%	856	Max 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		Yes		No		100 square feet	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	No	Yes	Yes	Remove and replace
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	No	Yes	Yes	Clean as appropriate
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	No	Yes	Yes	Clean as appropriate

Observations

Findings

- Water damage flooring in this room and principals office (carpet)
- Dust build up on HVAC return grills and on horizontal surfaces

Site Based Maintenance:

- Clean HVAC return grills and horizontal surfaces throughout the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Remove carpet in FISH 101 and replace with tile
- Remove and replace carpet in principals office

- NOTE: Work order EQ02206 generated 11/7/2011

IAQ Assessment

Location Number 2851

Griffin Elementary School

Evaluation Requested September 23, 2011

Time of Day 1:30 PM

Evaluation Date October 3, 2011

Outdoor Conditions Temperature 90.3 Relative Humidity 47.5 Ambient CO2 445

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
164	75.2	72 - 78	60.1	30% - 60%	1047	Max 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		Yes		No		540 square feet	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	No	Yes	Yes	Remove and replace
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	No	Yes	Yes	Clean as appropriate

Observations

Findings

- Water damage flooring (carpet)
- Dust build up on surfaces throughout the room
- Humidity level was slightly elevated at the time of the assessment

Site Based Maintenance:

- Clean surfaces throughout the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Remove and replace carpet
- Evaluate HVAC system for proper operation and repair as appropriate to lower humidity level

- NOTE: Work orders EQ02205 and EQ02206 generated 11/7/2011

IAQ Assessment

Location Number 2851
 Evaluation Requested September 23, 2011
 Evaluation Date October 3, 2011

Griffin Elementary School

Time of Day 1:30 PM

Outdoor Conditions Temperature 90.3 Relative Humidity 47.5 Ambient CO2 445

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
180A	73.2	72 - 78	63.2	30% - 60%	810	Max 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No		None	
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Drywall/Partition		No	No	None		
Flooring	Carpet		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	No	Yes	Yes	Clean as appropriate
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings

- Dust build up on HVAC return grills
- Dust build up on HVAC filters in Remove and replace HVAC filters in AHU that services 180A and 180B.
- Humidity level was slightly elevated at the time of the assessment

Site Based Maintenance:

- Clean HVAC return grills
- Remove and replace HVAC filters in AHU that services 180A and 180B.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate HVAC system for proper operation and repair as appropriate to lower humidity level

- NOTE: Work order EQ02205 generated 11/7/2011

IAQ Assessment

Location Number 2851

Griffin Elementary School

Evaluation Requested September 23, 2011

Time of Day 1:30 PM

Evaluation Date October 3, 2011

Outdoor Conditions Temperature 90.3 Relative Humidity 47.5 Ambient CO2 445

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
180B	72.8	72 - 78	55	30% - 60%	915	Max 700 > Ambient	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No		None	
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Drywall/Partition		No	No	None		
Flooring	Carpet		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	No	Yes	Yes	Clean as appropriate
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings

- Dust build up on HVAC return grills
- Dust build up on HVAC filters in Remove and replace HVAC filters in AHU that services 180A and 180B.
- Humidity level was slightly elevated (compared to outside) at the time of the assessment

Site Based Maintenance:

- Clean HVAC return grills
- Remove and replace HVAC filters in AHU that services 180A and 180B.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate HVAC system for proper operation and repair as appropriate to lower humidity level

- NOTE: Work order EQ02205 generated 11/7/2011