

RISK MANAGEMENT...

managing risk with responsibility

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Signature on File

TO: Ms. Stephanie Bevill, Principal
Broward Estates Elementary School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 110D, 110G and 303

For Custodial Supervisor Use Only	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed

On November 16, 2010 I conducted an assessment of FISH 110D, 110G and 303 at **Broward Estates Elementary School**. This evaluation included observations of the flooring system, ceiling tiles, false ceiling plenum, environmental surfaces, interior and exterior walls, and the accessible ventilation equipment. Additionally, environmental parameter measurements were taken to include temperature, relative humidity, and carbon dioxide. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

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 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 me at 754-321-1900.

cc: Dr. Desmond Blackburn, Area Superintendent
Carle Shaw, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Aston Henry, Supervisor, Risk Management
Charles Ricks, Project Manager, Facilities and Construction Management
Jerrod Neal, Broward Teachers Union
Roy Jarrett, Federation of Public Employees
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

ES/tc
Enc.

IAQ Assessment

Location Number 0501
 Evaluation Requested November 9, 2010
 Evaluation Date November 16, 2010

Broward Estates Elementary School

Time of Day

Outdoor Conditions Temperature 83.9 Relative Humidity 54.5 Ambient CO2 401

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
110D	76.1	72 - 78	52.1	30% - 60%	770	Max 700 > Ambient	2
Noticeable Odor	No		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Drywall		Yes	No	Under window sill		
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	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings
 - Signs of water intrusion under window - bubbling paint

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:
 - Evaluate for cause of water intrusion and repair as appropriate. Repair/replace wall material as necessary.

NOTE: Work order EQ01565 and EQ01566 generated

IAQ Assessment

Broward Estates Elementary School

Location Number 0501
 Evaluation Requested November 9, 2010
 Evaluation Date November 16, 2010

Time of Day

Outdoor Conditions Temperature 83.9 Relative Humidity 54.5 Ambient CO2 401

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
110G	76.1	72 - 78	52.1	30% - 60%	770	Max 700 > Ambient	2
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	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings

- Occupant advised of musty odor in the morning. Slight odor in FISH 110
- FISH 113 and 122 (AHU rooms) - A/C filters not taped together

Site Based Maintenance:

- Ensure that A/C filters in AHU rooms are taped together to prevent bypass of particulates
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

IAQ Assessment

Location Number 0501
 Evaluation Requested November 9, 2010
 Evaluation Date November 16, 2010

Broward Estates Elementary School

Time of Day

Outdoor Conditions Temperature 83.9 Relative Humidity 54.5 Ambient CO2 401

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
303	74.1	72 - 78	56.6	30% - 60%	1245	Max 700 > Ambient	20
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		Yes		No		1 ceiling tile	
Ceiling Type	2 x 4 Lay In		Yes	No		@4 square feet - North wall	
Wall Type	Drywall		Yes	No		@4 square feet - North wall	
Flooring	12 x 12 Vinyl		No	No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace ceiling tile
Walls	Yes	No	No	
Flooring	Yes	No	No	
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

- Signs of water intrusion on North wall - bubbling paint
- Occupant complaint of odors and allergies
- Dust build up on area rug
- Non-approved chemical in room (potpourri)
- Chalkboard in room
- Dust build up on environmental surfaces
- CO2 level was slightly elevated

Site Based Maintenance:

- Remove and replace stained ceiling tile and monitor. If stain returns contact COMPASS to generate a work order for Physical Plant Operations to evaluate for cause
- Clean area rug
- Remove non-approved chemicals (potpourri)
- Consider replacing chalkboard with marker board
- Thoroughly 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:

- Evaluate for cause of water intrusion and repair as appropriate. Repair/replace wall material as necessary.
- Evaluate HVAC system for proper operation and repair as appropriate to lower CO2 level

NOTE: Work order EQ01565, EQ01566 and EQ01567 generated