

RISK MANAGEMENT...

managing risk with responsibility

Jeffrey S. Moquin, Director
Risk Management Department

Telephone: 754-321-3200
Facsimile: 754-321-3290

September 10, 2007

Signature on File

TO: Ms. Sharon P. Schmidt, Principal
Margate Elementary School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 1802, 1805 and 1810

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

On August 21, 2007 I conducted an assessment of FISH 1802, 1805 and 1810 at **Margate 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. 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 754-321-3200.

cc: Dr. Joanne Harrison, Area Superintendent
Sharon Airaghi, Area Director
Jeffrey S. Moquin, Director, Risk Management
Philip Kaufold, Project Manager, Facilities and Construction Management
Gary Itzkowitz, 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

Margate Elementary School

Location Number
 Evaluation Requested
 Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="1802"/>	<input type="text" value="74.7"/>	<input type="text" value="72 - 78"/>	<input type="text" value="46.7"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="466"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="5 square feet"/>		
Flooring	<input type="text" value="Vinyl"/>		<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="Various"/>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Repair/repaint wall material"/>
Flooring	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Repair/replace floor tiles"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

Observations

Findings:

- Floor at A/C unit (Bard) is buckled with puddles of water
- Visible microbial growth and staining on North and East walls at A/C unit
- Water leaking from outside air intake

-Recommendations:

Site Based Maintenance:

- Continue to dry floor and wipe down walls
- 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 cause of buckled floor and puddles on floor at A/C unit (Bard) and repair as appropriate. Repair/replace floor tiles as necessary.
- Evaluate cause of staining and microbial growth on North and East walls at A/C unit and repair as appropriate. Repair/repaint wall as necessary.
- Evaluate cause of leak from outside air intake and repair as appropriate

IAQ Assessment

Margate Elementary School

Location Number 1161
 Evaluation Requested August 20, 2007
 Evaluation Date August 21, 2007

Time of Day 11:00 am

Outdoor Conditions Temperature 90.6 Relative Humidity 62.3 Ambient CO2 409

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1805	78.3	72 - 78	53.8	30% - 60%	568	Max 700 > Ambient	2
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		Yes		3 ceiling tiles	
Ceiling Type	2 x 4 Lay In		No	Yes	3 ceiling tiles		
Wall Type	Drywall		Yes	Yes	1 square foot		
Flooring	Vinyl		Yes	No	Various		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace stained tiles
Walls	No	Yes	Yes	Repair/repaint wall material
Flooring	No	Yes	Yes	Repair/replace floor tiles
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:

- Floor at A/C unit (Bard) is buckled with puddles of water
- Visible microbial growth and staining on West wall and elevated moisture content (50%) in wall near electrical outlet
- Visible microbial growth on 3 ceiling tiles

-Recommendations:

Site Based Maintenance:

- Continue to dry floor and wipe down walls
- 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 cause of buckled floor and puddles on floor at A/C unit (Bard) and repair as appropriate. Repair/replace floor tiles as necessary.
- Evaluate cause of staining and microbial growth on West wall, stained ceiling tiles and elevated moisture content in wall near electrical outlet and repair as appropriate. Repair/replace or repaint wall material and replace ceiling tiles as necessary.

IAQ Assessment

Margate Elementary School

Location Number 1161
 Evaluation Requested August 20, 2007
 Evaluation Date August 21, 2007

Time of Day 11:00 am

Outdoor Conditions Temperature 90.6 Relative Humidity 62.3 Ambient CO2 409

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1810	77	72 - 78	53	30% - 60%	934	Max 700 > Ambient	23
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	South and West Walls		
Flooring	Vinyl		Yes	No	Various		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Repair/repaint wall material
Flooring	No	Yes	Yes	Repair/replace floor tiles
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:

- Floor at A/C unit (Bard) is buckled with puddles of water
- Elevated moisture content (30-50%) in South and West walls

-Recommendations:

Site Based Maintenance:

- Continue to dry floor
- 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 cause of buckled floor and puddles on floor at A/C unit (Bard) and repair as appropriate. Repair/replace floor tiles as necessary.
- Evaluate cause of elevated moisture content in South and West walls and repair as appropriate. Repair/replace wall material as necessary.