

RISK MANAGEMENT...

managing risk with responsibility

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January 4, 2008

Signature on File

TO: Ms. Kathy Sedlack,, Principal
Martin Luther King Elementary School

FROM: Robert Krickovich, Coordinator, LEA
Facilities and Construction Management

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 401, 402, 410, 414 and 414F

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

On October 17, 2007 I conducted an assessment of FISH 401, 402, 410, 414 and 414F at **Martin Luther King 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 754-321-1638.

cc: Dr. Verda Farrow, Area Superintendent
Michaelle Pope, Area Director
Jeffrey S. Moquin, Director, Risk Management
Sheldon Dash, Project Manager, Facilities and Construction Management
Jerrod Neal, Broward Teachers Union
Roy Jarrett, National Federation of Public and Private Employees
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc
Enc.

IAQ Assessment

Martin Luther King 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="401, 402, 410"/>	<input type="text" value="66.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="59.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="641"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="50"/>
Noticeable Odor	<input type="text" value="No"/>		Visible water damage / staining?	<input type="text" value="No"/>	Visible microbial growth?	<input type="text" value="Yes"/>	Amount of material affected
Ceiling Type	<input type="text" value="Open Deck"/>		<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Drywall at FISH 414"/>		
Wall Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="Sheet Vinyl"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		

	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="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
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="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
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:

- Temperature was low at the time of the assessment
- Dust and debris on HVAC return grills
- Visible microbial growth on wall base around entire cafeteria (FISH 401 and 410) and on ceiling at FISH 414
- Chilled water pipe leaking on drywall ceiling at wall between cafeteria and kitchen (visible microbial growth)
- Visible microbial growth on piano, podium and walls on stage (FISH 402) and on ceiling in stair 040A

Recommendations:

Site Based Maintenance:

- Clean HVAC return grills with Wexcide disinfectant solution
- 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

- Provide custodial assistance to wipe down wall base in cafeteria, clean items in stage area and ceiling in 040A
- Evaluate HVAC system for proper operation and repair as appropriate to increase temperature and lower humidity. Check all controls and dampers (occupants advised that there is visible growth on surfaces after the weekend).
- Repair leaking chilled water pipes and replace water damaged ceiling and wall material as appropriate

NOTE: EQ01086 and EQ01087 were generated to address concerns

IAQ Assessment

Location Number
 Evaluation Requested
 Evaluation Date

Martin Luther King Elementary School

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="414"/>	<input type="text" value="72.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="61.7"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="611"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="8"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Ceiling Type	<input type="text" value="Drywall"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Ceramic Tile"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="Quarry Tile"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		

	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="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
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="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
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:
 - Humidity level was slightly elevated at the time of the assessment
 - Dust and debris on HVAC return grills

Recommendations:

Site Based Maintenance:
 - Clean HVAC return grills with Wexcide disinfectant solution
 - 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. Check all controls and dampers (occupants advised that there is visible growth on surfaces after the weekend).

NOTE: EQ01086 and EQ01087 were generated to address concerns

IAQ Assessment

Martin Luther King Elementary School

Location Number 1611
 Evaluation Requested October 9, 2007
 Evaluation Date October 17, 2007

Time of Day 11:00 am

Outdoor Conditions Temperature 85.6 Relative Humidity 70.1 Ambient CO2 445

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
414F	71.2	72 - 78	66.6	30% - 60%	580	Max 700 > Ambient	1
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:

- Humidity level was slightly elevated at the time of the assessment
- Minor microbial growth on one light fixture in front of HVAC supply grill

Recommendations:

Site Based Maintenance:

- Clean light fixture with Wexcide disinfectant solution
- 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. Check all controls and dampers (occupants advised that there is visible growth on surfaces after the weekend).

NOTE: EQ01086 and EQ01087 were generated to address concerns