

Jeffrey S. Moquin, Director
Risk Management Department

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

September 20, 2006

Signature on File

TO: Mr. James McDermott, Principal
Forest Glen Middle School

FROM: Robert J. Krickovich, Coordinator, LEA
Facilities and Construction Management, Environmental Division

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 414C and 416C

On September 1, 2006 I conducted an assessment of FISH 414C and 416C at **Forest Glen Middle 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.

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. Joanne Harrison, Area Superintendent
Jackie Haywood, Area Director
Jeffrey S. Moquin, Director, Risk Management
Paul Bach, Project Manager, Facilities and Construction Management
Ruby Fitzgerald, Broward Teachers Union
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc
Enc.

IAQ Assessment

Location Number
 Evaluation Requested
 Evaluation Date

Forest Glen Middle School

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="414C"/>	<input type="text" value="72.5"/>	<input type="text" value="72 - 78"/>	<input type="text" value="62"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="624"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="3"/>
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 2 Lay In"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Wall Type	<input type="text" value="Struck Block"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="Concrete"/>	<input type="text" value="No"/>	<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="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:
 - Visible microbial growth on 10 softball gloves
 - Humidity level was elevated

Recommendations:

Site Based Maintenance:
 - Discard 10 softball gloves
 - 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 and repair HVAC system to lower humidity level

IAQ Assessment

Forest Glen Middle 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="416C"/>	<input type="text" value="69.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="71"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="717"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="3"/>
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="2 x 2 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Struck Block"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="Concrete"/>		<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:

- Dust and debris on HVAC return grills
- Visible microbial growth on sports equipment (6 basketballs, 2 catchers masks, 1 large equipment bag, 3 chest protectors, 2 sets of chin guards, 2 catchers mits, 36 batting helmets and 6 baseball bats).
- Temperature was low and humidity level was elevated
- Boxes on shelf blocking HVAC return grill

Recommendations:

Site Based Maintenance:

- Clean HVAC return grills with Wexcide disinfectant solution
- Discard all sports equipment except for the bats, which are aluminum. Thoroughly clean bats and remove and replace tape on the grips.
- Remove boxes that are blocking HVAC return grill
- 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 and repair HVAC system to increase temperature and lower humidity level