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June 30, 2005

TO: Ms. Constantina Robinson, Principal
Martin Luther King Elementary School

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

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 410 and 414

On June 16, 2005 the IAQ Assessment Team conducted an assessment of FISH 410 and 414 at **Martin Luther King Elementary School**. The evaluation consisted of a walkthrough of the identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included observations of the carpet, floor tile, ceiling tile, interior walls, false ceiling plenum, and accessible ventilation equipment.

Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if needed.

Generally, the IAQ Assessment did not identify any existing conditions significantly impacting IAQ and thereby presenting immediate health and safety concerns 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. Verda Farrow, Area Superintendent
Kevin Sawyer, Area Director
Jeffrey S. Moquin, Director, Risk Management
Rodney Williams, Project Manager II, Facilities and Construction Management
Jerrod Neal, Broward Teachers Union
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc

IAQ Assessment

Martin Luther King Elementary School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="410"/>	<input type="text" value="70.7"/>	<input type="text" value="72 - 78"/>	<input type="text" value="52.8"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="394"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
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="Open Grid"/>		<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="Baseboard"/>	
Flooring	<input type="text" value="Sheet Vinyl"/>		<input type="text" value="Yes"/>	<input type="text" value="Yes"/>		<input type="text" value="Spot Growth"/>	

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

Observations

Findings:
 - Visible microbial growth on edges of cafeteria tables, vinyl flooring and vinyl baseboard of North and West walls. Minor amounts of spotty growth on drywall just above baseboard. Appears to be caused by spills and splatters.

Recommendations:
Site Based Maintenance:
 - Clean cafeteria tables, baseboards and walls with Wexcide disinfectant solution
 - Clean and sanitize vinyl floor
 - Site based administration to address general cleanliness with facilities serviceperson staff
 - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

IAQ Assessment

Martin Luther King Elementary School

Evaluation Requested

Time of Day

Evaluation Date

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="70.7"/>	<input type="text" value="72 - 78"/>	<input type="text" value="52.8"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="394"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="2"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="Yes"/>		<input type="text" value="9 square feet in front of hood"/>	
Ceiling Type		<input type="text" value="Drywall"/>		<input type="text" value="Yes"/>		<input type="text" value="None"/>	
Wall Type		<input type="text" value="Ceramic Tile"/>		<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="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean spots on ceiling with Wexcide disinfectant"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>
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" value=""/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value=""/>

Observations

Findings:

- Visible microbial growth on ceiling (@40 spots from 1/4" to 1 1/2" in diameter). Facilities serviceperson advised that the kitchen staff had splattered something on the ceiling and it was not cleaned off.
- Hot air is coming through hood supply duct when fan is off
- Dust and debris on HVAC return grills

Recommendations:

Site Based Maintenance:

- Clean ceiling with Wexcide disinfectant solution
- Clean HVAC return grills with Wexcide disinfectant solution
- Site based administration to address general cleanliness with kitchen staff
- 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 Division:

- Evaluate and repair cause of water damage and microbial growth on wall under hood
- Evaluate and repair cause of hot air flow when supply fan is off (Jim Eberling of Zone 2 has been notified and is working to correct)