

RISK MANAGEMENT...

managing risk with responsibility

Jeffrey S. Moquin, Director
Risk Management Department

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

August 15, 2006

Signature on File

TO: Ms. Camille LaChance, Principal
North Side Elementary School

FROM: Kenneth I. Partee, Project Manager Occupational Health and Environmental Control
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 804, 804A, 804B, 804C and 804D

On August 14, 2006 I conducted an assessment of FISH 804, 804A, 804B, 804C and 804D at **North Side 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.

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. Verda Farrow, Area Superintendent
Joel Herbst, Area Director
Jeffrey S. Moquin, Director, Risk Management
David Herrmann, Project Manager, Facilities and Construction Management
Dane Ramson, Broward Teachers Union
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

KP/tc
Enc.

IAQ Assessment

Location Number 0041
 Evaluation Requested August 14, 2006
 Evaluation Date August 14, 2006

North Side Elementary School

Time of Day 10:10 a.m.

Outdoor Conditions Temperature 96.1 Relative Humidity 57.4 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
804	72.7	72 - 78	70	30% - 60%	839	Max 700 > Ambient	16
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		Yes		No		4 ceiling tiles	
Ceiling Type	2 x 4 Lay In		Yes	No		4 ceiling tiles	
Wall Type	Drywall		No	No		None	
Flooring	Tile		No	No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace ceiling tiles
Walls	Yes	No	No	
Flooring	No	Yes	Yes	Clean and sanitize
HVAC Supply Grills	No	Yes	Yes	Clean with Wexcide disinfectant
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	No	Yes	Yes	Clean as appropriate
Surfaces in Room	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- 2 ceiling tiles have visible staining and 2 ceiling tiles are sagging
- Residue on shelving and environmental surfaces
- Dust build up on floor
- Dust and debris on HVAC supply grills and on ceiling at supply grills
- Humidity level was elevated

Recommendations:

Site Based Maintenance:

- Remove and replace stained and sagging ceiling tiles
- Clean and sanitize floor
- Clean HVAC supply grills with Wexcide disinfectant solution and ceiling at supply grills as appropriate
- Clean shelving and all environmental surfaces 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 and repair HVAC system to lower humidity level

IAQ Assessment

Location Number 0041
 Evaluation Requested August 14, 2006
 Evaluation Date August 14, 2006

North Side Elementary School

Time of Day 10:10 a.m.

Outdoor Conditions Temperature 96.1 Relative Humidity 57.4 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
804A	73.2	72 - 78	66.1	30% - 60%	833	Max 700 > Ambient	
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		No	No	None		
Flooring	Tile		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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- Surface mold on piano
- Residue on all environmental surfaces
- Humidity level was elevated

Recommendations:

Site Based Maintenance:

- Clean piano with Wexcide disinfectant solution
- Clean all environmental surfaces 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 and repair HVAC system to lower humidity level

IAQ Assessment

Location Number 0041

North Side Elementary School

Evaluation Requested August 14, 2006

Time of Day 10:10 a.m.

Evaluation Date August 14, 2006

Outdoor Conditions Temperature 96.1 Relative Humidity 57.4 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
804B	73.1	72 - 78	68.2	30% - 60%	831	Max 700 > Ambient	
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	Tile		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	No	Yes	Yes	Clean with Wexcide disinfectant
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- Residue on all environmental surfaces
- Dust and debris on HVAC supply grills
- Humidity level was elevated

Recommendations:

Site Based Maintenance:

- Clean HVAC supply grills with Wexcide disinfectant solution
- Clean all environmental surfaces 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 and repair HVAC system to lower humidity level

IAQ Assessment

Location Number 0041
 Evaluation Requested August 14, 2006
 Evaluation Date August 14, 2006

North Side Elementary School

Time of Day 10:10 a.m.

Outdoor Conditions Temperature 96.1 Relative Humidity 57.4 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
804C	74.2	72 - 78	65.2	30% - 60%	831	Max 700 > Ambient	
Noticeable Odor	No	Visible water damage / staining?	No	Visible microbial growth?	No	Amount of material affected	None
Ceiling Type	2 x 4 Lay In		No	No	None		
Wall Type	Drywall		No	No	None		
Flooring	Tile		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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- Surface mold on violins, violin cases, keyboard, speaker cabinets, music stands and tables
- Residue on all environmental surfaces
- Humidity level was elevated

Recommendations:

Site Based Maintenance:

- Clean violins, violin cases, keyboard, speaker cabinets and music stands with Wexcide disinfectant solution
- Clean all environmental surfaces 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 and repair HVAC system to lower humidity level

IAQ Assessment

Location Number 0041
 Evaluation Requested August 14, 2006
 Evaluation Date August 14, 2006

North Side Elementary School

Time of Day 10:10 a.m.

Outdoor Conditions Temperature 96.1 Relative Humidity 57.4 Ambient CO2 524

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
804D	73.2	72 - 78	66.6	30% - 60%	806	Max 700 > Ambient	
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		No	No	None		
Flooring	Tile		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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- Surface mold on violins, violin cases, wooden instruments, speaker cabinets, music stands and tables
- Residue on all environmental surfaces
- Humidity level was elevated

Recommendations:

Site Based Maintenance:

- Clean violins, violin cases, wooden instruments, speaker cabinets and music stands with Wexcide disinfectant solution
- Clean all environmental surfaces 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 and repair HVAC system to lower humidity level