

RISK MANAGEMENT...

managing risk with responsibility

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Risk Management Department

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May 2, 2008

Signature on File

TO: Ms. Kellee Stroup, Principal
McNab Elementary School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 318, 327, 328, 329, 332, 335 and 934

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

On March 27, 2008 I conducted an assessment of FISH 318, 327, 328, 329, 332, 335 and 934 at **McNab 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
Jackie Haywood, Area Director
Jeffrey S. Moquin, Director, Risk Management
Robert Bellot, Project Manager, Facilities and Construction Management
Lynn Cavall, 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

McNab Elementary School

Location Number 0841
 Evaluation Requested March 20, 2008
 Evaluation Date March 27, 2008

Time of Day 1:00 pm

Outdoor Conditions Temperature 78.1 Relative Humidity 52.8 Ambient CO2 458

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
318	72.6	72 - 78	55.9	30% - 60%	815	Max 700 > Ambient	3
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		1 ceiling tile	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	Remove and replace ceiling tile
Walls	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
Flooring	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
HVAC Supply Grills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
HVAC Return Grills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
Ceiling at Supply Grills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
Surfaces in Room	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean as appropriate

Observations

Findings:

- 1 stained ceiling tile
- Dust build up on environmental surfaces throughout the room

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles
- Thoroughly clean all surfaces throughout the room
- 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 stained ceiling tiles and repair as appropriate.

IAQ Assessment

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Time of Day 1:00 pm

Outdoor Conditions Temperature 78.1 Relative Humidity 52.8 Ambient CO2 458

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
327	72.2	72 - 78	55.9	30% - 60%	826	Max 700 > Ambient	2
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		1 ceiling tile	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	Remove and replace ceiling tile
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:
 - 1 stained ceiling tile
 - Dust build up on environmental surfaces throughout the room

Recommendations:

Site Based Maintenance:
 - Remove and replace stained ceiling tiles
 - Thoroughly clean all surfaces throughout the room
 - 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 stained ceiling tiles and repair as appropriate.

IAQ Assessment

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
328	74.1	72 - 78	52.7	30% - 60%	832	Max 700 > Ambient	2
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/Plaster		No	No	None		
Flooring	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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- No signs of water intrusion or microbial growth
- Dust build up on environmental surfaces throughout the room

Recommendations:

Site Based Maintenance:

- Thoroughly clean all surfaces throughout the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

IAQ Assessment

McNab Elementary School

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Time of Day 1:00 pm

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
329	75.3	72 - 78	52.2	30% - 60%	950	Max 700 > Ambient	5
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		Yes		No		2 ceiling tiles	
Ceiling Type	2 x 4 Lay In		Yes	No		2 ceiling tiles	
Wall Type	Drywall/Plaster		Yes	No		By teacher desk	
Flooring	Vinyl		No	No		None	

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

Observations

Findings:

- 2 stained ceiling tiles above teacher desk
- Staining on wall by teacher desk
- Dust and debris on HVAC return grills
- Dust build up on environmental surfaces throughout the room
- Throw rug in room

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles
- Wipe down walls thoroughly to remove stains
- Clean HVAC return grills with Wexcide disinfectant solution
- Thoroughly clean all surfaces throughout the room
- Use extraction machine to clean rug. If rug cannot be cleaned, please discard.
- 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 stained ceiling tiles and repair as appropriate.

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Outdoor Conditions Temperature 78.1 Relative Humidity 52.8 Ambient CO2 458

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
332	72.9	72 - 78	55.3	30% - 60%	839	Max 700 > Ambient	4
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/Plaster		No	No	None		
Flooring	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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- No signs of water intrusion or microbial growth
- Dust build up on environmental surfaces throughout the room

Recommendations:

Site Based Maintenance:

- Thoroughly clean all surfaces throughout the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

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Outdoor Conditions Temperature 78.1 Relative Humidity 52.8 Ambient CO2 458

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
335	72.2	72 - 78	53.8	30% - 60%	706	Max 700 > Ambient	2
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/Plaster		No	No	None		
Flooring	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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- No signs of water intrusion or microbial growth
- Dust build up on environmental surfaces throughout the room

Recommendations:

Site Based Maintenance:

- Thoroughly clean all surfaces throughout the room
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

IAQ Assessment

McNab Elementary School

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Time of Day 1:00 pm

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
934	66.9	72 - 78	56.6	30% - 60%	694	Max 700 > Ambient	3
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		1 ceiling tile	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	Remove and replace ceiling tile
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:

- 1 stained ceiling tile
- Dust build up on environmental surfaces throughout the room
- Temperature was low at the time of the assessment

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles
- Thoroughly clean all surfaces throughout the room
- Adjust thermostat to increase temperature
- 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 stained ceiling tiles and repair as appropriate.