

RISK MANAGEMENT...

managing risk with responsibility

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January 28, 2010

Signature on File

TO: Mr. Carlton Campbell, Principal
Pines Middle School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 1128, 1130, 1153, 1157, 1202 and 1208

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

On December 17, 2009, I conducted an assessment of FISH 1128, 1130, 1153, 1157, 1202 and 1208 at **Pines 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.

Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. In an attempt to separate IAQ issues from general maintenance items, the attached assessment may contain direction for site based staff to generate a work order through COMPASS. 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 754-321-1900.

cc: Dr. Joel Herbst, Area Superintendent
Valerie Wanza, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Aston Henry, Supervisor, Risk Management
Frank Girardi, Project Manager, Facilities and Construction Management
Iris Froelich, 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

Location Number 1881

Pines Middle School

Evaluation Requested December 10, 2009

Time of Day 12:30 pm

Evaluation Date December 17, 2009

Outdoor Conditions Temperature 76.4 Relative Humidity 82.6 Ambient CO2 383

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1128	70.6	72 - 78	49.4	30% - 60%		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/Plaster		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:

- Temperature was low at the time of the assessment

Site Based Maintenance:

- 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

IAQ Assessment

Location Number 1881

Pines Middle School

Evaluation Requested December 10, 2009

Time of Day 12:30 pm

Evaluation Date December 17, 2009

Outdoor Conditions Temperature 76.4 Relative Humidity 82.6 Ambient CO2 383

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1130	70.1	72 - 78	49.2	30% - 60%		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/Plaster		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:

- Temperature was low at the time of the assessment

Site Based Maintenance:

- 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

IAQ Assessment

Location Number 1881

Pines Middle School

Evaluation Requested December 10, 2009

Time of Day 12:30 pm

Evaluation Date December 17, 2009

Outdoor Conditions Temperature 76.4 Relative Humidity 82.6 Ambient CO2 383

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1153	69.6	72 - 78	50.7	30% - 60%	1163	Max 700 > Ambient	19
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/Plaster		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	No	Yes	Yes	Clean as appropriate

Observations

Findings:

- Temperature was low at the time of the assessment
- Dust build up on environmental surfaces
- Non-approved chemicals in room (WD-40, bug spray, air fresheners)
- FISH 1157 (Mechanical Room) - A/C filters not taped together and cloudy water in drain pan

Site Based Maintenance:

- Adjust thermostat to increase temperature
- Thoroughly clean window sills and environmental surfaces throughout the room
- Remove non-approved chemicals from room
- Tape A/C filters together in FISH 1157 AHU
- 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 AHU in FISH 1157 and clean as appropriate

IAQ Assessment

Location Number 1881

Pines Middle School

Evaluation Requested December 10, 2009

Time of Day 12:30 pm

Evaluation Date December 17, 2009

Outdoor Conditions Temperature 76.4 Relative Humidity 82.6 Ambient CO2 383

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1202	71.2	72 - 78	67.2	30% - 60%	873	Max 700 > Ambient	3
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		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 elevated at the time of the assessment

Site Based Maintenance:

- 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 level

IAQ Assessment

Location Number 1881

Pines Middle School

Evaluation Requested December 10, 2009

Time of Day 12:30 pm

Evaluation Date December 17, 2009

Outdoor Conditions Temperature 76.4 Relative Humidity 82.6 Ambient CO2 383

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
1208	70	72 - 78	70.1	30% - 60%	832	Max 700 > Ambient	3
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/Plaster		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:

- Temperature was low and humidity level was elevated at the time of the assessment

Site Based Maintenance:

- 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 increase temperature and lower humidity level