

RISK MANAGEMENT...

managing risk with responsibility

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February 8, 2008

Signature on File

TO: Mr. David Gordon, Principal
Pompano Beach High School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 207, 307, 312, 315, 316 and 333

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

On February 6, 2008 I conducted an assessment of FISH 207, 307, 312, 315, 316 and 333 at **Pompano Beach High 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
Dave Archer, Project Manager, Facilities and Construction Management
Lynn Cavall, Broward Teachers Union
Roy Jarrett, National Federation of Public and Private 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

Pompano Beach High 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="207"/>	<input type="text"/>	<input type="text" value="72 - 78"/>	<input type="text"/>	<input type="text" value="30% - 60%"/>	<input type="text"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text"/>
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 4 Lay In"/>		<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="1 square foot"/>		
Wall Type	<input type="text" value="Drywall/Plaster"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<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="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace ceiling tiles"/>
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 staining and minor microbial growth on ceiling tile with fire suppressant (@1 square foot)

Recommendations:
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 cause of stained ceiling tile and repair as appropriate and remove and replace ceiling material as appropriate

IAQ Assessment

Location Number 0185
 Evaluation Requested February 4, 2008
 Evaluation Date February 6, 2008

Pompano Beach High School

Time of Day 8:30 am

Outdoor Conditions Temperature 82.8 Relative Humidity 59.6 Ambient CO2 451

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
307	72.7	72 - 78	53.5	30% - 60%	1119	Max 700 > Ambient	26
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		Yes	No	1 square foot		
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:

- Visible water damage and staining on North wall middle window
- Window propped open
- Building envelope needs to be sealed to prevent water intrusion. Water enters room during rain event. Facilities and Construction Management has requested Capital funds from be made available for 2008-09 fiscal year.

Recommendations:

Site Based Maintenance:

- Ensure that windows remain closed
- Ensure that standing water is dried and cleaned during and after rain event
- 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

- Schedule for carpenters to evaluate wall in classroom and cause of stained ceiling tiles on East side of room and repair as appropriate to sustain until building envelope repairs have been completed

Facilities and Construction Management:

- Follow up with Capital Planning to ensure funds are escalated to the 2008-09 fiscal year and expedite project when funds become available.

IAQ Assessment

Location Number 0185
 Evaluation Requested February 4, 2008
 Evaluation Date February 6, 2008

Pompano Beach High School

Time of Day 8:30 am

Outdoor Conditions Temperature 82.8 Relative Humidity 59.6 Ambient CO2 451

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
312	72.7	72 - 78	53	30% - 60%	939	Max 700 > Ambient	
Noticeable Odor	No		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	2 x 4 Lay In		Yes	No	3 ceiling tiles		
Wall Type	Drywall/Plaster		Yes	No	Various		
Flooring	12 x 12 Vinyl		Yes	No	Various		

	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	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Visible water damage and staining on East wall along baseboard
- Visible water damage on flooring
- 3 stained ceiling tiles - East side of room
- Building envelope needs to be sealed to prevent water intrusion. Water enters room during rain event. Facilities and Construction Management has requested Capital funds from be made available for 2008-09 fiscal year.

Recommendations:

Site Based Maintenance:

- Thoroughly clean and sanitize floor
- Remove and replace stained ceiling tiles as necessary until repairs are completed
- Ensure that standing water is dried and cleaned during and after rain event
- 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

- Schedule for carpenters to evaluate wall in classroom and cause of stained ceiling tiles on East side of room and repair as appropriate to sustain until building envelope repairs have been completed

Facilities and Construction Management:

- Follow up with Capital Planning to ensure funds are escalated to the 2008-09 fiscal year and expedite project when funds become available.

IAQ Assessment

Location Number 0185
 Evaluation Requested February 4, 2008
 Evaluation Date February 6, 2008

Pompano Beach High School

Time of Day 8:30 am

Outdoor Conditions Temperature 82.8 Relative Humidity 59.6 Ambient CO2 451

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
315	73.4	72 - 78	51.1	30% - 60%	1131	Max 700 > Ambient	32
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		Yes	No	3 square feet		
Flooring	12 x 12 Vinyl		Yes	No	Various		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	No	Yes	Yes	Clean and sanitize
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:

- Visible water damage and staining on East wall along baseboard
- Visible water damage on flooring
- Closet adjacent to FISH 315 has visible water damage and staining on East wall along baseboard (@ 2 square feet) and on flooring
- Building envelope needs to be sealed to prevent water intrusion. Water enters room during rain event. Facilities and Construction Management has requested Capital funds from be made available for 2008-09 fiscal year.

Recommendations:

Site Based Maintenance:

- Thoroughly clean and sanitize floor
- Ensure that standing water is dried and cleaned during and after rain event
- 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

- Schedule for carpenters to evaluate wall in classroom and adjacent closet and repair as appropriate to sustain until building envelope repairs have been completed

Facilities and Construction Management:

- Follow up with Capital Planning to ensure funds are escalated to the 2008-09 fiscal year and expedite project when funds become available.

IAQ Assessment

Location Number 0185
 Evaluation Requested February 4, 2008
 Evaluation Date February 6, 2008

Pompano Beach High School

Time of Day 8:30 am

Outdoor Conditions Temperature 82.8 Relative Humidity 59.6 Ambient CO2 451

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
316	74.3	72 - 78	46.7	30% - 60%	886	Max 700 > Ambient	4
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		Yes		Yes		8 square feet	
Flooring		Yes		No		3 square feet	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	Yes	No	No	
Flooring	No	Yes	Yes	Clean and sanitize
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:

- Visible water damage, staining and minor microbial growth on East wall along baseboard
- Visible water damage on flooring
- Bubbling paint around window sill area
- Building envelope needs to be sealed to prevent water intrusion. Water enters room during rain event. Facilities and Construction Management has requested Capital funds from be made available for 2008-09 fiscal year.

Recommendations:

Site Based Maintenance:

- Thoroughly clean and sanitize floor
- Ensure that standing water is dried and cleaned during and after rain event
- 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

- Schedule for carpenters to evaluate wall and window sill and repair as appropriate to sustain until building envelope repairs have been completed

Facilities and Construction Management:

- Follow up with Capital Planning to ensure funds are escalated to the 2008-09 fiscal year and expedite project when funds become available.

IAQ Assessment

Location Number
 Evaluation Requested
 Evaluation Date

Pompano Beach High School

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="333"/>	<input type="text" value="69.5"/>	<input type="text" value="72 - 78"/>	<input type="text" value="59.6"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="998"/>	<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 4 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Drywall/Plaster"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<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:

- Occupant reported symptoms while in the room. Musty odor in Northeast corner of the room
- Room was not occupied at the time of the assessment
- No odor detected and no signs of visible microbial growth or water intrusion in this area
- AHU Room - FISH 337 - A/C filters were not taped

Recommendations:

Site Based Maintenance:

- Ensure that A/C filters are taped together properly to prevent air bypass
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate