

RISK MANAGEMENT...

managing risk with responsibility

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Risk Management Department

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August 11, 2008

Signature on File

TO: Ms. Rosemary Chambers, Principal
Hallandale High School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 426 and 428

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

On August 1, 2008 I conducted an assessment of FISH 426 and 428 at **Hallandale 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. Joel Herbst, Area Superintendent
Dr. Gina Eyerman, Area Director
Jeffrey S. Moquin, Director, Risk Management
Herbert Lee, Project Manager, Facilities and Construction Management
Jamie Daniels, 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

Location Number 0403
 Evaluation Requested July 24, 2008
 Evaluation Date August 1, 2008

Hallandale High School

Time of Day 1:15 pm

Outdoor Conditions Temperature 88.7 Relative Humidity 54.6 Ambient CO2 421

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
426	74.4	72 - 78	67.9	30% - 60%	512	Max 700 > Ambient	5
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> None	
Ceiling Type	<input type="checkbox"/> 2 x 4 Lay In		<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> None		
Wall Type	<input type="checkbox"/> Drywall/Soundproof		<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> None		
Flooring	<input type="checkbox"/> Carpet		<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text"/>
Walls	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text"/>
Flooring	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Clean and sanitize
HVAC Supply Grills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text"/>
HVAC Return Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> N/A
Ceiling at Supply Grills	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text"/>
Surfaces in Room	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text"/>

Observations

Findings:

- Musty odor in room
- Humidity level was elevated at the time of the assessment
- Door was propped open at the time of the assessment
- No HVAC return installed
- Window pane missing (work order generated by site)
- Carpet is stained and worn. HFSP indicated that replacement is scheduled.

Recommendations:

Site Based Maintenance:

- Ensure that all doors to the exterior remain closed. Open doors or windows allow humid untreated air into occupied environment.
- Follow up with Physical Plant Operations regarding the replacement of the window pane and carpeting
- 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 for proper operation and repair as appropriate to lower humidity level
- Evaluate for possible installation of HVAC return

IAQ Assessment

Hallandale High School

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Time of Day 1:15 pm

Outdoor Conditions Temperature 88.7 Relative Humidity 54.6 Ambient CO2 421

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
428	75.6	72 - 78	65.1	30% - 60%	513	Max 700 > Ambient	3
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Yes		Yes		Yes		3 ceiling tiles	
Ceiling Type	2 x 4 Lay In		Yes	Yes	3 ceiling tiles		
Wall Type	Drywall/Plaster		No	No	None		
Flooring	Carpet		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	Yes	No	No	
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:

- Musty odor in room
- 3 stained ceiling tiles with visible microbial growth
- Humidity level was elevated at the time of the assessment
- Dust and debris on HVAC return grills
- Dust build up on environmental surfaces
- Bowed ceiling tiles in **FISH 426A, 427A, 428A and 003B**

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles
- Clean HVAC return grills with Wexcide disinfectant solution
- Thoroughly clean environmental surfaces throughout the room
- Remove and replace bowed ceiling tiles in rooms indicated above
- 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 for proper operation and repair as appropriate to lower humidity level