

RISK MANAGEMENT...

managing risk with responsibility

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September 21, 2009

Signature on File

TO: Ms. Sarah Hausman
Wingate Oaks Center

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 102, 114, 141, 405, 503, 801, 805, 904

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

On September 15, 2009 Bob Krickovich, Bill Mowery and I conducted an assessment of FISH 102, 114, 141, 405, 503, 801, 805 and 904 at **Wingate Oaks Center**. 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. Leontine Butler, Area Superintendent
Michaelle Pope, Area Director
Jeffrey S. Moquin, Executive Director, Support Operations
Aston Henry, Supervisor, Risk Management
Robert Goode, Project Manager, Facilities and Construction Management
Dane Ramson, 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

ES/tc
Enc.

IAQ Assessment

Location Number 0991

Wingate Oaks Center

Evaluation Requested September 15, 2009

Time of Day 1:30 pm

Evaluation Date September 15, 2009

Outdoor Conditions Temperature 88.3 Relative Humidity 57 Ambient CO2 380

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
102	73.7	72 - 78	44.8	30% - 60%	589	Max 700 > Ambient	5
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:
 - No issues identified at the time of the assessment

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

IAQ Assessment

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Time of Day 1:30 pm

Evaluation Date September 15, 2009

Outdoor Conditions Temperature 88.3 Relative Humidity 57 Ambient CO2 380

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
114	70.6	72 - 78	50.1	30% - 60%	557	Max 700 > Ambient	6
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:

- One ceiling tile not installed properly
- FISH 130C - Air handler unit room - no issues identified

Recommendations:

Site Based Maintenance:

- Adjust ceiling tile
- 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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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
141		72 - 78		30% - 60%		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	2 ceiling tiles		
Wall Type	Drywall/Plaster		Yes	No	3 square feet		
Flooring	12 x 12 Vinyl		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace stained ceiling tiles
Walls	No	Yes	Yes	Repair/replace wall material
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	Clean as appropriate

Observations

Findings:

- 2 stained ceiling tiles
- Water damaged wall material under A/C shaker unit. Grid along entire wall is rusted. Work order J395850 generated by site to address.

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles. Monitor for return of staining. If stain returns, contact COMPASS to generate a work order.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operation:

- Expedite repairs for work order J395850 relating to water damaged wall material and rusted grid. Evaluate for cause of water intrusion and repair as appropriate.

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
405	76.8	72 - 78	54.4	30% - 60%	688	Max 700 > Ambient	6
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		None	
Wall Type		No		Yes		2 square feet	
Flooring		Yes		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Repair/replace wall material
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:

- Water damaged wall material/window sills - @2 square feet. Work order J395841 generated by site to address.
- FISH 405A - 1 stained ceiling tile

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tile in FISH 405A. Monitor for return of staining. If stain returns, contact COMPASS to generate a work order.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operation:

- Expedite repairs for work order J395841 relating to water damaged wall material. Evaluate for cause of water intrusion and repair as appropriate.

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
503	77.8	72 - 78	54.1	30% - 60%	987	Max 700 > Ambient	7
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 square feet	
Wall Type	Drywall/Plaster		Yes	No		2 square feet	
Flooring	12 x 12 Vinyl		No	No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace stained ceiling tiles
Walls	No	Yes	Yes	Repair/replace wall material
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:

- 2 stained ceiling tiles
- Water damaged wall material at South exit door. Work order J395841 generated by site to address.
- Dust and debris on HVAC return grills
- Dust build up on environmental surfaces

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles. Monitor for return of staining. If stain returns, contact COMPASS to generate a work order.
- Clean HVAC return grills with Wexcide disinfectant solution
- Clean environmental 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 Operation:

- Expedite repairs for work order J395841 relating to water damaged wall material. Evaluate for cause of water intrusion and repair as appropriate.

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
801	73	72 - 78	54	30% - 60%	788	Max 700 > Ambient	7
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		3 ceiling tiles	
Wall Type		No		No		None	
Flooring		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	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- 3 stained ceiling tiles

Recommendations:

Site Based Maintenance:

- Remove and replace stained ceiling tiles. Monitor for return of staining. If stain returns, contact COMPASS to generate a work order.

- 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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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
805	74.4	72 - 78	54.5	30% - 60%	460	Max 700 > Ambient	5
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:

- No issues identified at the time of the assessment

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

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Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
904	73.7	72 - 78	56.6	30% - 60%	907	Max 700 > Ambient	12
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:

- Multiple live plants in the room.

Recommendations:

Site Based Maintenance:

- Remove plants from room. Soil is a source of microbial growth.

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate