

# managing risk with responsibility

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Jeffrey S. Moquin, Director Risk Management Department

July 25, 2005

TO: Mr. David Olafson, Principal

**Plantation Middle School** 

FROM: Kenneth I. Partee, Project Manager, Occupational Health and Environmental

Control

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 150, 152G, 160, 201

On July 21, 2005 the IAQ Assessment Team conducted an assessment of FISH 150, 152G, 160 and 201 at **Plantation Middle School**. The evaluation consisted of a walkthrough of the identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included observations of the carpet, floor tile, ceiling tile, interior walls, false ceiling plenum, and accessible ventilation equipment.

Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if needed.

Generally, the IAQ Assessment did not identify any existing conditions significantly impacting IAQ and thereby presenting immediate health and safety concerns 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.

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. Verda Farrow, Area Superintendent

David Goldstein, Area Director

Jeffrey S. Moquin, Director, Risk Management

Wayne Thrasher, Project Manager II, Facilities and Construction Management

Gary Itzkowitz, Broward Teachers Union

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

KP/tc

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#### IAQ Assessment

		Plar	ntation Midd	lle School		Evaluation	n Requested	July 19,	2005	
Time of Day	8:30 a	am				Ev	aluation Date	July 21,	2005	
Outdoor Conditions Temperature 86.3 Relative Humidity 74.5 Ambient CO2 528							28			
Fish	Temperati	ure Rar	nge Rela	ative Humidity	<sup>/</sup> Range	CO2	Ran	ge # O	ccupants	
150 & 160	70.3	72 -	78	58.8	30% - 60%	684	Max 700	> Ambient	6	
Noticeable Oc	or	No		Visible water mage / staining	Visible mi g? growt		Amount of mat affected	terial		
Ceiling Type		Plaster		Yes	No		\	/arious		
Wall Type		Plaster		Yes	No		Various			
Flooring	Til	Tile/Carpet		No	No		None			
	Cle	ean N	Minor Dust / Debris	Needs Cleaning	J	Correct	ive Action Re	equired		
Ceiling	l l	No	No	Yes		150A and	d 160 stained	ceiling		
Walls	N	No	Yes	Yes		Clear	n as appropri	ate		
Flooring		No	Yes	Yes		Clean and sanitize carpets				
HVAC Supply Grills		No	Yes	Yes		Clean with V		n Wexcide disinfectant		
HVAC Return Grills		No	Yes	Yes		Clean with Wexcide disinfectant				
Ceiling at Sup Grills	pply N	No	Yes	Yes		Clean with	Wexcide disi	nfectant		
Surfaces in Ro	oom N	No	Yes	Yes		Clear	n as appropri	ate		

## **Observations**

## Findings:

- Stained ceiling in FISH 150A and 160
- Staining on walls throughout all adjacent rooms
- Dust and debris on HVAC supply and return grills
- Dust and debris on carpet throughout all adjacent rooms FISH 150C has odor

#### Recommendations:

#### Site Based Maintenance:

- Clean and/or repaint ceiling in 150A and 160
- Clean walls throughout all adjacent rooms with Wexcide disinfectant solution
- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Clean and sanitize carpet throughout all adjacent rooms
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

#### IAQ Assessment

Plantation Middle School

Evaluation Requested

July 19, 2005

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Time of Day	8:30 am				I	Evaluation Date	July 21, 2005	
Outdoor Condi	itions Ten	nperature 8	36.3	Relative Hum	ridity 74.5	Ambient CO	528	
Fish	Temperature	Range Rela	tive Humidity	Range	CO2	Range	# Occupants	
152G	67.9	72 - 78	47.3	30% - 60%	706	Max 700 > Am	nbient	
Noticeable Odor No			Visible water Visible microbial damage / staining? growth?			Amount of material affected		
Ceiling Type	g Type 2 x 4 Lay in		Yes		lo	Variou	Various	
Wall Type	Plaster	,	Yes	Yes No		Various		
Flooring	Tile/Carp	et	No	N	lo	None		
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Require	ed	
Ceiling	No	No	Yes		Sta	ined ceiling tiles		
Walls	No	Yes	Yes		Clea	an as appropriate		
Flooring	Yes	No	No					
HVAC Supply	Grills No	Yes	Yes		Clean wit	h Wexcide disinfec	tant	
HVAC Return	Grills No	Yes	Yes		Clean wit	h Wexcide disinfec	tant	
Ceiling at Sup Grills	ply No	Yes	Yes		Clean wit	h Wexcide disinfec	tant	
Surfaces in Ro	oom No	Yes	Yes		Cle	an as appropriate		

# Observations

#### Findings:

- Temperature is low
- Stained ceiling tiles
- Visible microbial growth on wall. Previously cleaned and keeps coming back.
- Dust and debris on HVAC supply and return grills

#### Recommendations:

# Site Based Maintenance:

- Adjust thermostat to increase temperature
- Replace stained ceiling tiles
- Clean HVAC supply and return grills with Wexcide disinfectant solution
- 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 Division:

- Evaluate cause of microbial growth on wall and repair and seal/paint as appropriate

#### IAQ Assessment

Plantation Middle School

Evaluation Requested

July 19, 2005

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Time of Day	8:30 am				I	Evaluation Date	July 21, 2005	
Outdoor Condi	itions Tem	perature 8	36.3	Relative Hum	idity 74.5	Ambient CO	528	
Fish	Temperature	Range Rela	tive Humidity	Range	CO2	Range	# Occupants	
201	70.6 <b>7</b>	<b>'2 - 78</b>	58.5	30% - 60%	567	Max 700 > Am	nbient	
Noticeable Odor No			/isible water lage / staining		microbial wth?	Amount of material affected		
Ceiling Type	e 2 x 4 Lay in		Yes		0	Variou	Various	
Wall Type	Plaster		Yes		0	Variou	Various	
Flooring	Tile/Carpe	et	No	N	o	None		
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Require	ed	
Ceiling	Yes	No	No					
Walls	No	Yes	Yes		Clea	an as appropriate		
Flooring	Yes	No	No					
HVAC Supply	Grills No	Yes	Yes		Clean wit	h Wexcide disinfect	ant	
HVAC Return	Grills No	Yes	Yes		Clean wit	h Wexcide disinfect	ant	
Ceiling at Sup Grills	ply No	Yes	Yes		Clean wit	h Wexcide disinfect	tant	
Surfaces in Ro	oom No	Yes	Yes		Clea	an as appropriate		

# Observations

#### Findings:

- Ceiling tiles are bowed and trim at ceiling is rusted
- Visible microbial growth on wall next to elevator. Previously cleaned and keeps coming back.
- Dust and debris on HVAC supply and return grills

## Recommendations:

#### Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- 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 Division:

- Evaluate bowed ceiling tiles and rusted trim at ceiling and repair/replace as appropriate
- Evaluate cause of microbial growth at wall next to elevator and repair as appropriate