

# managing risk with responsibility

Jeffrey S. Moquin, Director Risk Management Department

September 21, 2005

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Signature on File

TO: Ms. Rebecca Dahl, Principal

**Sunrise Middle School** 

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

Control

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 302, 416, 504, 506, 510A, 510B and 718

On August 12, 2005 the IAQ Assessment Team conducted an assessment of FISH 302, 416, 504, 506, 510A, 510B and 718 at **Sunrise 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

Dr. Roberta Insel, Area Director

Jeffrey S. Moquin, Director, Risk Management

Dave A. Archer, Project Manager III, Facilities and Construction Management

Jerrod Neal, 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

Enc.

Time of Day 11	:39 am			Ev	August 12, 2005
Outdoor Conditions	Temperature	90.8	Relative Humidity	63.3	Ambient CO2 491
Fish Tempe	erature Range	Relative Humidity	Range	CO2	Range # Occupants
302 7	<b>72 - 78</b>	63.8	30% - 60%	1158	Max 700 > Ambient 33
Noticeable Odor [	No	Visible water damage / staining	Visible micro g? growth?	bial ,	Amount of material affected
Ceiling Type	Metal	No	No	L	None
Wall Type	Drywall	No	No		None
Flooring	Tile	No	No		None
	Clean Minor I			Correcti	ive 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		Clear	n as appropriate
Observations Findings: Graphic A - Photo related items of the commendations: Dust and debris on light and debris on light and debris on light and the commendations:  Site Based Maintena of the commendation	under sink de and outside cabin ight table in rear of re elevated  nnce: ed items under sink ( tside of cabinets as a appropriate this location for any s	oom use Chemical Disp appropriate signs of microbial g	·		ms) ris accumulation and clean as

Sunrise Middle School

0251

August 11, 2005

Location Number
Evaluation Requested

Sunrise Middle School Evaluation Requested August 11, 2005										
Time of Day 11:31 am Evaluation Date August 12, 2005										
Outdoor Condi	tions Tem	perature	8.00	Relative Hu	midity	63.3	Ambie	ent CO2	491	
Fish 416		Range Rela	68.7	Range 30% - 60%		<b>CO2</b> 869	Rar Max 700	_	# Occupants	
Noticeable Od	or No		/isible water nage / staining		e microb rowth?	oial	Amount of ma	terial		
Ceiling Type	Concrete	e	No		No			None		
Wall Type	Brick		No		No			None		
Flooring	Tile		No		No	[		None		
	Clean Minor Dust Needs Corrective Action Required									
Ceiling	Yes	No	No							
Walls	No	Yes	Yes			Clea	n as appropri	ate		
Flooring	Yes	No	No							
HVAC Supply	Grills Yes	No	No							
HVAC Return (	Grills Yes	No	No							
Ceiling at Support Grills	ply Yes	No	No							
Surfaces in Ro	oom No	Yes	Yes							
bservations										
Findings: Boy - Minor stains or - Rattling noise f - Temperature w - Humidity level  Recommendati	n walls from exhasut fan vas low was elevated									
Site Based Maintenance: - Clean walls as appropriate - 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 and repair exhaust fans as appropriate - Evaluate and repair HVAC system to increase temperature and lower humidity level										

0251

**Location Number** 

	Sur	irise Middle School		Evaluati	on Requested	August 11, 2005
Time of Day	10:55 am			E	Evaluation Date	August 12, 2005
Outdoor Condi	tions Tempera	ture 90.8	Relative Humidity	63.3	Ambie	nt CO2 491
Fish	Temperature Rang	e Relative Humid	<sup>ity</sup> Range	CO2	Ran	ge # Occupants
504/506	71.1 72 - 78	70.1	30% - 60%	906	Max 700	> Ambient 31
Noticeable Od	or No	Visible wate damage / stain			Amount of mata	terial
Ceiling Type	2 x 2 Lay In	No	No	[		None
Wall Type	Plaster	No	No	[		None
Flooring	Tile	No	No			None
		nor Dust Need Debris Cleani	~	Correc	tive Action Re	quired
Ceiling	No	Yes		Clea	an as appropri	ate
Walls	Yes	No No				
Flooring	Yes	No				
HVAC Supply	Grills No	Yes		Clean witl	h Wexcide disi	nfectant
HVAC Return (	Grills					
Ceiling at Sup Grills	ply No	Yes		Clea	an as appropri	ate
Surfaces in Ro	oom No	Yes		Clea	an as appropri	ate
Dbservations						

0251

**Location Number** 

#### 0

## Findings:

- Dust and debris on HVAC supply and return grills
- Dust and debris on ceiling tiles at HVAC supply grills
- Dust and debris on ceiling tiles at HVAC supply grills in storage closets 504A and 506A
- Damaged HVAC vents
- Temperature was low
- Humidity level was elevated

#### Recommendations:

#### Site Based Maintenance:

- Clean HVAC supply and return grills in 504, 504A, 506 and 506A with Wexcide disinfectant solution
- Clean ceiling tiles at HVAC supply grills as appropriate
- 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 and repair HVAC vents
- Evaluate and repair HVAC system to increase temperature and lower humidity level

Time of Day 11	:22 am			Eva	August 12, 2005		
Outdoor Conditions	Temperature	90.8	Relative Humidity	63.3	Ambient CO2 491		
Fish Tempe	<sup>erature</sup> Range	Relative Humidity	Range	CO2	Range # Occupants		
510A 7	<b>76.3 72 - 78</b>	55.3	30% - 60%	1301	Max 700 > Ambient 25		
Noticeable Odor	No	Visible water damage / staining	Visible micro growth?	bial A	Amount of material affected		
Ceiling Type	2 x 2 Lay In	No	No	L	None		
Wall Type	Plaster	No	No		None		
Flooring	Tile	No	No		None		
	Clean Minor I		l	Correcti	ve Action Required		
Ceiling	No	Yes		Clean	as appropriate		
Walls	Yes No	No					
Flooring	Yes	No					
HVAC Supply Grills	No Yes	Yes	CI	ean with	Wexcide disinfectant		
HVAC Return Grills	No	Yes	Yes Clean with Wexcide disinfectant				
Ceiling at Supply Grills	No Yes	Yes		Clean	as appropriate		
Surfaces in Room	No	Yes		Clean	as appropriate		
- Dust and debris on control - Dust observed on er  Recommendations:  Site Based Maintena - Clean HVAC supply - Clean ceiling tiles at	and return grills with HVAC supply grills a	supply grills s Wexcide disinfecta and adjacent ceiling	tiles as appropriate	t and debr	is accumulation and clean as		

Sunrise Middle School

**Location Number** 

**Evaluation Requested** 

0251

August 11, 2005

	S	Sunrise Middle	School		Evaluation	ո Requested	August 11, 2005	
Time of Day 1	1:14 am				Eva	aluation Date	August 12, 2005	
Outdoor Conditions	s Tempe	rature 90	8.0	Relative Humidity	63.3	Ambier	nt CO2 491	
Fish Temp	erature Rar	nge Relati	ive Humidity	Range	CO2	Ran	ge # Occupants	
510B	76 <b>72</b> -	78	58.3	30% - 60%	1362	Max 700 :	> Ambient 26	
Noticeable Odor	No		isible water age / staining	Visible micro g? growth?		Amount of mat affected	erial	
Ceiling Type	2 x 2 Lay In		No	No			None	
Wall Type	Plaster/Partitio	n	No	No None				
Flooring	Tile		No	No			None	
	Clean N	Minor Dust / Debris	Needs Cleaning		Correctiv	ve Action Re	quired	
Ceiling	No	Yes	Yes		Clean	as appropria	ite	
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply Grills	s No	Yes	Yes	С	lean with \	Wexcide disi	nfectant	
HVAC Return Grills	s No	Yes	Yes	С	lean with \	Wexcide disi	nfectant	
Ceiling at Supply Grills	No	Yes	Yes		Clean	as appropria	ite	
Surfaces in Room	No	Yes	Yes		Clean	as appropria	ite	
bservations								
Findings:								
- Dust and debris on	HVAC supply	and return gril	ls					
- Dust and debris on ceiling tiles at HVAC supply grills								
- Dust observed on environmental surfaces								
Recommendations:								
Site Based Mainten	ance:							
- Clean HVAC supply								
			acent ceiling	g tiles as appropriate	;			
<ul> <li>Clean environments</li> <li>Continue to monitor</li> </ul>			of microbial c	rowth as well as dus	st and debri	is accumulatio	on and clean as	
		, ,	U					

appropriate

**IAQ Assessment** 

0251

**Location Number** 

		Sunrise Middl	e School		Evaluati	ion Requested	August 7	11, 2005
Time of Day	10:30 am	]			E	Evaluation Date	August '	12, 2005
Outdoor Cond	itions Ten	nperature	90.8	Relative Humid	dity 63.3	Ambie	nt CO2	491
Fish	Temperature	Range Rela	tive Humidity	Range	CO2	Ran	ge # (	Occupants
718	66.3	72 - 78	66.1	30% - 60%	904		> Ambient	2
Noticeable Oc	dor No		/isible water nage / staining?	Visible m grow		Amount of mat affected	terial	
Ceiling Type	2 x 2 Lay	' In	No	No			None	
Wall Type	Drywal	I	No	No			None	
Flooring	Tile		No	No			None	
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	equired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply	Grills No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
HVAC Return	Grills No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
Ceiling at Sup Grills	oply No	Yes	Yes		Clea	an as appropri	ate	
Surfaces in Ro	oom Yes	No	No					

0251

**Location Number** 

## **Observations**

## Findings:

- Dust and debris on skins that are hanging on wall
- Dust and debris on 15' section of driftwood and wood branches
- Dust and debris on animals traps
- Dust and debris on HVAC supply and return grills
- Dust and debris on ceiling tiles at HVAC supply grills
- Temperature was low
- Humidity level was elevated

#### Recommendations:

# Site Based Maintenance:

- Occupant advised will bring in vacuum to clean skins hanging on wall
- Occupant to remove 15' section of driftwood and wood branches
- Occupant to clean animal traps
- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Clean ceiling tiles at HVAC supply grills as appropriate
- 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 and repair HVAC system to increase temperature and lower humidity level