

managing risk with responsibility

Jeffrey S. Moquin, Director Risk Management Department Telephone: 754-321-3200 Facsimile: 754-321-3290

September 9, 2008 Signature on File

TO: Dr. David Basile, Principal

South Plantation High School

FROM: Edward See, Project Manager

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 024, 161, 162, 268 and 270

For	Custodial Supervisor Use Only
	Custodial Issues Addressed
	Custodial Issues Not Addressed

On September 4, 2008 I conducted an assessment of FISH 024, 161, 162, 268 and 270 at South Plantation 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. Verda Farrow, Area Superintendent Fran Bolden, Area Director Jeffrey S. Moquin, Director, Risk Management Wayne Thrasher, Project Manager, Facilities and Construction Management Juana Romanuik, Project Manager, Facilities and Construction Management Charles Ricks, Project Manager, Facilities and Construction Management Rob Jindracek, Project Manager, Energy Management, Physical Plant Operations Ralph Eckhardt, 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.

	South	Plantation High	School		Evaluation	Requested Se	eptember 3, 2008	
Time of Day					Eva	luation Date Se	eptember 4, 2008	
Outdoor Condi	itions Tem	perature 80	6.8	Relative Humidity	69.7	Ambient C	O2 398	
Fish	Temperature _E	Range Relat	ive Humidity	Donge	CO2	Range	# Occupants	
024		2 - 78	59.1	Range 30% - 60%	483	Max 700 > Ar		
Noticeable Od	lor Yes		sible water	Visible micro		⊔ mount of material		
Ceiling Type	2 x 4 Lay		age / staining Yes	g? growth?	,	affected 3 ceiling	ı tiles	
Wall Type	Plaster/Dryv		No	No		None		
Flooring	Linoleum		No	No		Non	ne	
	Clean	Minor Dust / Debris	Needs Cleaning		Correctiv	re Action Requir	ed	
Ceiling	No	Yes	Yes	R	emove and	l replace ceiling	tiles	
Walls	No	Yes	Yes		Evalu	ate and repair		
Flooring	Yes	No	No					
HVAC Supply	Grills					N/A		
HVAC Return	Grills Yes	No	No					
Ceiling at Sup Grills	ply					N/A		
Surfaces in Ro	oom Yes	No	No					
bservations								
- 3 stained ceilir- Teacher stated	in corridor - only ng tiles	anding water tha		be cleaned with a w I 286	vet vac			
Recommendat	ions:							
Site Based Maintenance: - Remove and replace stained ceiling tiles - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate								
- Evaluate caus	lation in corridor -	er on floor, stain		s es and bubbling paiı	nt on wall ar	nd repair as appro	priate.	

2351

	South Plantat	ion High School		Evaluation	Requested September 3, 2008
Time of Day				Eval	luation Date September 4, 2008
Outdoor Conditions	Temperatur	e 86.8	Relative Humidity	69.7	Ambient CO2 398
161 7	Perature Range 71.6 72 - 78	Relative Humidity	30% - 60%	CO2 416	Range # Occupants Max 700 > Ambient 3
Noticeable Odor	No	Visible water damage / staining	Visible micro g? growth?		mount of material affected
Ceiling Type	2 x 2 Lay In	No	No		None
Wall Type	Tile	No	No		None
Flooring	Non Skid	No	Yes		@1 square foot
	Clean Minor / Del		J	Correctiv	e Action Required
Ceiling	Yes	No			
Walls	Yes	No			
Flooring	No	Yes		Clean	and sanitize
HVAC Supply Grills	Yes N	No			
HVAC Return Grills	Yes	o No			
Ceiling at Supply Grills	Yes	No			
Surfaces in Room	Yes	No			
Dbservations					
Findings: culinary r - Visible microbial gro		quare foot at bakery	prep table). Appea	rs to be from	n excess water during floor cleaning.
Recommendations:					
Site Based Maintena - Thoroughly clean ar - Continue to monitor appropriate	nd sanitize floor. En	sure that there is no	excess water left or growth as well as du	n floor. st and debris	s accumulation and clean as

2351

South Plantat	on High School		Evaluation Re	quested September 3, 2008
			Evaluat	tion Date September 4, 2008
Temperatur	e 86.8	Relative Humidity	69.7	Ambient CO2 398
	Relative Humidity	Range 30% - 60%	CO2 415	Range # Occupants Max 700 > Ambient 2
No	Visible water damage / staining			unt of material affected
12 x 12	No	No		None
Plaster	No	No		None
Non Skid	Yes	No		water stains
			Corrective A	Action Required
Yes	No			
Yes	No			
No	Yes		Clean an	nd sanitize
Yes	No			
oom . Appears to be fro	m improper cleanin	g by students.		
d sanitize floor.	signs of microbial g	rowth as well as dus	st and debris ac	ccumulation and clean as
	Temperature rature Range 3.3 72 - 78 No 12 x 12 Plaster Non Skid Clean Minor / Det Yes No Yes N	rature Range Relative Humidity 3.3 72 - 78 59.2 No Visible water damage / staining 12 x 12 No Plaster No Non Skid Yes Clean Minor Dust Needs / Debris Cleaning Yes No No No Yes No No No Yes Yes Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No Yes No No	Temperature 86.8 Relative Humidity rature Range Relative Humidity Range 3.3 72 - 78 59.2 30% - 60% No Visible water damage / staining? 12 x 12 No No No Plaster No No Non Skid Yes No Clean Minor Dust Needs / Debris Cleaning Yes No No Yes No No No Yes No No No Yes No No No Yes No No No No Yes No No No No No Yes No	Temperature 86.8 Relative Humidity 69.7 rature Range Relative Humidity Range CO2 3.3 72 - 78 59.2 30% - 60% 415 No Visible water damage / staining? Visible microbial growth? 12 x 12 No

2351

		So	uth Plantat	on High	School			Evaluat	ion Req	uested	Septem	nber 3, 2008
Time of Day								E	Evaluation	on Date	Septem	nber 4, 2008
Outdoor Condi	itions	To	ㅡ emperatur	e 86.	.8	Relative H	umidit	y 69.7	,	Ambie	nt CO2	398
	T											
Fish 268	Temper 80		Range		ve Humidity 72.5	ı ıtalıgo		CO2 673		Ran	J	# Occupants
			72 - 78			30% - 60%	ole micr				> Ambie	nt 6
Noticeable Oc	dor	Yes			sible water ge / staining	_	growth			nt of mat affected	eriai	
Ceiling Type	PI	aster/D	rywall		No		No				None	
Wall Type	PI	aster/D	rywall		No		No				None	
Flooring		Linole	um	[No		No				None	
		Clean	Minor	Dust	Needs							
		, ican	/ Del		Cleaning	J		Corre	ctive A	ction Re	quired	
Ceiling		Yes	N	o	No							
Walls		Yes	N	o	No							
Flooring		Yes	N	o	No							
HVAC Supply	Grills								N/	' A		
HVAC Return	Grills	No	Υe	s	Yes		(Clean wit	h Wexo	ide disi	nfectant	
Ceiling at Sup Grills	ply								N/	'A		
Surfaces in Ro	oom	Yes	No	•	No							
Dhservations												
Findings: Boy	s Lock	er Roo	m									
No A/C supplyDust and debrNo water foun	in lock is on re	er room turn gri	n, only exha lls	ust fans.	Facilities	is working o	n a proj	ject to ins	tall A/C	supply.		
Recommendat	ions:											
Site Based Mai	intenan	ice:										
 Clean return g Continue to mappropriate 	rills with	n Wexc				growth as we	ell as du	ıst and de	ebris acc	cumulatio	on and cle	ean as
Facilities and Construction Management: - Evaluate need for bottled water from Safety Department as a temporary measure												

2351

	Sout	h Plantation Hig	h School		Evaluation F	September 3, 2008
Time of Day					Evalu	September 4, 2008
Outdoor Cond	itions Ter	nperature 8	86.8 R	elative Humidity	69.7	Ambient CO2 398
Fish	Temperature	Range Rela	tive Humidity	Range	CO2	Range # Occupants
270	82	72 - 78	62 3	80% - 60%	475	Max 700 > Ambient 3
Noticeable Oc	lor Yes		/isible water age / staining?	Visible micro growth?	bial Am	ount of material affected
Ceiling Type	Plaster/Dry	/wall	No	No		None
Wall Type	Plaster/Dry	/wall	No	No		None
Flooring	Linoleur	n	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					N/A
HVAC Return	Grills No	Yes	Yes	CI	ean with W	excide disinfectant
Ceiling at Sup Grills	ply					N/A
Surfaces in Ro	oom Yes	No	No			
- Exhaust fans r - Dust and debr Recommendat Site Based Mai - Clean return g - Contact COMF	in locker room, not functioning p is on return grills ions: intenance: rills with Wexcid PASS to general	only exhaust far roperly s e disinfectant so e a work order to	llution o evaluate and l	working on a proje repair exhaust fans wth as well as dus	S	C supply.

2351