

managing risk with responsibility

Aston A. Henry, Supervisor
Risk Management Department

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February 24, 2012

Signature on File

TO: Leo Nesmith, Principal

The Quest Center

FROM: Richard Rosa, Project Manager

Facilities and Construction Management

SUBJECT: Indoor Air Quality (IAQ) Assessment

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

On January 18, 2012, I conducted an assessment at **The Quest Center**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

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 site based custodial 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 us at 754-321-1907.

cc: Area Superintendent

Area Directors

Shelley Meloni, Executive Director, Facilities and Construction Management Mark Dorsett, Acting Director, Physical Plant Operations Division, Maintenance Sonja Coley, Project Manager III, Facilities and Construction Management Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division Aston Henry, Supervisor, Risk Management Broward Teachers Union

Federation of Public Employees

RR/tc Enc.

		IAQ As	sessment	Location Number	
	The	Quest Center		Evaluation Requested	January 17, 2012
Time of Day	3:20			Evaluation Date	January 18, 2012
Outdoor Conditions	Temperature	80.3	Relative Humidity	46.3 Ambie	ent CO2 454
Fish Tempe	erature Range	Relative Humidity	Range	CO2 Rar	nge # Occupants
110 7	72 - 78	50.1	30% - 60%	736 Max 700	> Ambient
Noticeable Odor	No	Visible water damage / staining	Visible micro growth?	7 0	
Ceiling Type	2 x 4 Lay In	No	No		None
Wall Type	Wood	No	No		None
Flooring	12 x 12 Vinyl	No	No		None
Ceiling	Clean Minor Debr	is Cleaning		Corrective Action Re	equired
		. —			
Walls	Yes No	No			
Flooring	Yes No	No			
HVAC Supply Grills	No Yes	Yes		Clean as appropri	iate
HVAC Return Grills	No	Yes		Clean as appropri	ate
Ceiling at Supply Grills	No Yes	Yes		Clean as appropri	iate
Surfaces in Room	Yes No	No			
 Observations					
Findings - Dust build up on HV	AC supply and return	n grills and on ceili	ng at supply grills		
Site Based Maintenand - Clean HVAC supply - Continue to monitor appropriate	and return grills with			grills. ust and debris accumula	ation and clean as

			<u> </u>	e Ques	t Center		Evaluat	tion Requested [January 17, 2012
Time of Day		3:20					ſ	Evaluation Date	January 18, 2012
Outdoor Condi	tions	T(emperatur	e 8	0.3	Relative Humidi	ty 46.3	3 Ambie	nt CO2 454
Fish 117 Noticeable Od	7′	1.1 No	Range] 72 - 78		51.5	Range 30% - 60% Visible mid	CO2 953 crobial	Ran Max 700 Amount of	> Ambient
Ceiling Type		2 x 4 La	⊒ ay In	dama	age / staining	? growth	n?]	material affec Minor - less	than 1 square foot
Wall Type		Dryw	all	ĺ	No	No]		None
Flooring		12 x 12 \	Vinyl	ı	No	No]		None
		Clean	Minor / Del		Needs Cleaning		Corre	ctive Action Re	equired
Ceiling		No	Ye	es	Yes		Rer	move and repla	ice
Walls		Yes	No	0	No				
Flooring		Yes	No	٥	No				
HVAC Supply	Grills	No	Ye	s	Yes		Cle	an as appropria	ate
HVAC Return	Grills	Yes	No	0	No				
Ceiling at Sup Grills	ply	No	Ye	s	Yes		Cle	ean as appropria	ate
Surfaces in Ro	om	Yes	No	<u>)</u>	No				
bservations									
Findings - Dust build up of	on HV	AC supr	oly grills an	d on ce	iling at supply	y grills			

Location Number

- Stained ceiling tile roof leak repaired
- Weather stripping on exterior door threshold missing or damaged

Site Based Maintenance:

- Clean HVAC supply grills with Wexcide and clean ceiling at supply grills.
- Remove and replace stained ceiling tile
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

- Evaluate weather stripping on exterior door and repair/replace as appropriate.
- NOTE: Work orders EQ02271, EQ02272, EQ02273 and EQ02277 generated 1-24-12

		The Ques	t Center		Evaluation Requested	January 17, 2012
Time of Day	3:20				Evaluation Date	January 18, 2012
Outdoor Conditions	Tempe	erature 80	D.3 R	elative Humidity	46.3 Ambie	ent CO2 454
Fish Tempe	rature Ra	nge Relat	ive Humidity	Range	CO2 Rai	nge # Occupants
128A 7	1.9 72	- 78	52.2 3	0% - 60%		> Ambient
Noticeable Odor	No		isible water age / staining?	Visible micro growth?	obial Amount o material affe	
Ceiling Type	2 x 4 Lay In		No	No		None
Wall Type	Drywall		No	No		None
Flooring	12 x 12 Vinyl		No	No		None
	Clean I	Minor Dust / Debris	Needs Cleaning		Corrective Action Re	equired
Ceiling	Yes	No	No			
Walls	Yes	No	No			
Flooring	Yes	No	No			
HVAC Supply Grills	No	Yes	Yes		Clean as appropr	ate
HVAC Return Grills	Yes	No	No			
Ceiling at Supply Grills	Yes	No	No			
Surfaces in Room	Yes	No	No			
bservations						
Findings	AC cupply ar	ille				
 - Dust build up on HVAC supply grills Site Based Maintenance: - Clean HVAC supply grills with Wexcide - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean 						

Location Number

			IAQ As	sessment	Location	on Number		
		The Que	st Center		Evaluat	ion Requested [January	y 17, 2012
Time of Day	3:20	1			E	Evaluation Date	January	y 18, 2012
Outdoor Condit	tions Ter	mperature 8	30.3	Relative Humidi	tv 46.3	Ambie	nt CO2	454
Salassi Sanan		inperature	00.5	Relative numbu	ty <u>+0.5</u>	Allible		_434
Fish 7	Temperature	Range Rela	tive Humidity	Range	CO2	Ran	ge #	Occupants
128C	75.8	72 - 78	45.6	30% - 60%	748	Max 700	> Ambien	t
Noticeable Od	or No		/isible water nage / staining	Visible mid ? growth		Amount of material affec		
Ceiling Type	2 x 4 Lay	/ In	No	No			None	
Wall Type	Tackboard/E	Drywall	No	No			None	
Flooring	12 x 12 Vi	nyl	No	No	1		None	
Ceiling Walls Flooring HVAC Supply HVAC Return (Ceiling at Supply of the colling at Supply of t	Grills Yes	Minor Dust / Debris Yes No No No No No	Needs Cleaning No No No		Correc	ctive Action Re	quired	
bservations								
Findings - Windows do not close or lock properly - HVAC supply grill was taped closed and window in FISH 128D was open Site Based Maintenance: - Remove tape from HVAC supply grills and ensure windows and doors are kept closed. Opening windows and doors allows outside untreated air into occupied space Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as								

Physical Plant Operations:

appropriate

- Evaluate windows and repair as appropriate.

- NOTE: Work orders EQ02271, EQ02272, EQ02273 and EQ02277 generated 1-24-12

		The Ques	t Center		Evaluatio	n Requested	Janua	ry 17, 2012
Time of Day	3:20				Ev	/aluation Date	Janua	ry 18, 2012
Outdoor Condit	tions Ten	nperature 8	0.3	Relative Humidity	46.3	Ambie	nt CO2	454
Fish T 136 Noticeable Odd Ceiling Type [Wall Type [70.7	72 - 78 V dam	ive Humidity 50.6 isible water age / staining	Range 30% - 60% Visible micro growth? No			> Ambie	# Occupants
Flooring	12 x 12 Vir	nyl	No	No			None	
Ceiling	Clean	Minor Dust / Debris No	Needs Cleaning No		Correct	ive Action Re	quired	
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply (Grills No	Yes	Yes		Clear	n as appropria	ate	
HVAC Return C	Grills No	Yes	Yes		Clear	n as appropria	ate	
Ceiling at Supp Grills	oly No	Yes	Yes		Clear	n as appropria	ate	
Surfaces in Ro	om No	Yes	Yes		Clear	n as appropria	ate	
bservations								
Findings								

Location Number

0

- Dust build up on HVAC supply and return grills and on ceiling at supply grills
- Temperature was low at the time of the assessment
- Dust build up on elevated surfaces

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide and clean ceiling at supply grills.
- Thoroughly clean elevated surfaces
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

- Evaluate HVAC system for proper operation and repair as appropriate to increase temperature
- NOTE: Work orders EQ02271, EQ02272, EQ02273 and EQ02277 generated 1-24-12

		The Ques	t Center	Evaluat	tion Requested Jar	nuary 17, 2012
Time of Day	3:20			!	Evaluation Date Jar	nuary 18, 2012
Outdoor Condi	tions Ten	nperature 80	D.3 F	Relative Humidity 46.3	Ambient CO	2 454
Noticeable Od Ceiling Type Wall Type	69.5 7 or No 2 x 4 Lay Tackboard/D	V2 - 78 Vi dama	ive Humidity 51.4 sible water age / staining? No	Range CO2 30% - 60% 904 Visible microbial growth? No No	Range Max 700 > Am Amount of material affected None	
Flooring	12 x 12 Vir	nyl	No	No	None	
	Clean	Minor Dust / Debris	Needs Cleaning	Corre	ctive Action Require	d
Ceiling	Yes	No	No			
Walls	Yes	No	No			
Flooring	Yes	No	No			
HVAC Supply	Grills No	Yes	Yes	Cle	an as appropriate	
HVAC Return (Grills No	Yes	Yes	Cle	an as appropriate	
Ceiling at Supp Grills	ply No	Yes	Yes	Cle	an as appropriate	
Surfaces in Ro	oom No	Yes	Yes	Cle	an as appropriate	
bservations						

Location Number

0

Findings

- Dust build up on HVAC supply and return grills and on ceiling at supply grills
- Temperature was low at the time of the assessment
- Dust build up on elevated surfaces

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide and clean ceiling at supply grills.
- Thoroughly clean elevated surfaces
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

- Evaluate HVAC system for proper operation and repair as appropriate to increase temperature
- NOTE: Work orders EQ02271, EQ02272, EQ02273 and EQ02277 generated 1-24-12

		The Quest	Center	Eva	January 17, 2012
Time of Day	3:20				Evaluation Date January 18, 2012
Outdoor Condi	itions Tem	perature 80).3 R	elative Humidity	46.3 Ambient CO2 454
Fish	Temperature F	Range Relati	ve Humidity	Range CO2	Range # Occupants
231		2 - 78		960% - 60%	
Noticeable Od	lor No		sible water ige / staining?	Visible microbial growth?	Amount of material affected
Ceiling Type	2 x 4 Lay	In	Yes	No	1 square foot
Wall Type	Tackboard/Dr	ywall	No	No	None
Flooring	12 x 12 Vin	yl	No	No	None
	Clean	Minor Dust / Debris	Needs Cleaning	Co	rrective Action Required
Ceiling	No	Yes	Yes		Remove and replace
Walls	Yes	No	No		
Flooring	Yes	No	No		
HVAC Supply	Grills No	Yes	Yes		Clean as appropriate
HVAC Return	Grills No	Yes	Yes		Clean as appropriate
Ceiling at Sup Grills	ply No	Yes	Yes		Clean as appropriate
Surfaces in Ro	oom No	Yes	Yes		Clean as appropriate
bservations					
- Stained ceiling - Dust build up	on HVAC supply g tile - roof leak re on elevated surfa	epaired		g at supply grills	
- Remove and r - Thoroughly cle	supply and return eplace stained co ean elevated surf	eiling tile. Conta	nct COMPASS orners	_	der for those requiring cuts. nd debris accumulation and clean as

Location Number

		The Que	est Center		Evaluati	ion Requested January 17, 2012
Time of Day	3:20				E	Evaluation Date January 18, 2012
Outdoor Condi	tions Ten	nperature	80.3	Relative Humidity	46.3	Ambient CO2 454
			ative Humidity	Range	CO2	Range # Occupants
245	71.7	72 - 78	58.9	30% - 60%	801	Max 700 > Ambient
Noticeable Od	or Yes	da	Visible water mage / staining	Visible micro growth?		Amount of material affected
Ceiling Type	2 x 4 Lay	In	No	No		None
Wall Type	Drywall		No	No		None
Flooring	12 x 12 Vir	nyl	No	No		None
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Required
Ceiling	Yes	No	No			
Walls	Yes	No	No			
Flooring	Yes	No	No			
HVAC Supply	Grills No	Yes	Yes		Clea	an as appropriate
HVAC Return (Grills No	Yes	Yes		Clea	an as appropriate
Ceiling at Sup Grills	ply Yes	No	No			
Surfaces in Ro	oom No	Yes	Yes		Clea	an as appropriate

Location Number Evaluation Requested

January 17, 2012

Observations

Findings

- Dust build up on HVAC supply and return grills
- Dust build up on elevated surfaces and in low corners
- · Humidity level was slightly elevated and air handler is blowing air when the outdoor compressors are off. Possibly picking up odor and passing it to the classroom.

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide
- Thoroughly clean elevated surfaces and in low corners
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

- Evaluate HVAC system for proper operation and repair as appropriate to lower humidity level
- NOTE: Work orders EQ02271, EQ02272, EQ02273 and EQ02277 generated 1-24-12