

October 29, 2012

managing risk with responsibility

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Signature on File

TO: Jonathan Williams, Principal Northeast High School

FROM: Robert Krickovich, Coordinator I, LEA

Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

Fo	r Custodial Supervisor Use Only
	Custodial Issues Addressed
	Custodial Issues Not Addressed

On October 26, 2012, I conducted an assessment at **Northeast High School**. 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: Directors, School Performance & Accountability
Shelley Meloni, Executive Director, Facilities Design and Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Supervisor, Risk Management
Sonja Coley, Senior Project Manager, Facilities Design and Construction
Broward Teachers Union
Federation of Public Employees

RK/tc Enc.

Northe	east High Evaluation Da	te October 26, 2012	Time of Day 1	:30
Outdoor Conditions Temperatu	re 76.8 Relative	e Humidity 82.1	Ambient CO2 45	52
Fish Temperature Rang 153 66.9 72 - 7		Range CO ² 470	Range # Oc MAX 700 > Ambient	cupants 2
Noticeable Odor No Ceiling 2' X 4' Lay in	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in Walls Plaster Floor 12" x 12" Vinyl	Yes	No No	2 sq feet	
12 × 12 VIIIyI	Yes	No_	200 sq ft	
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	No		
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes N/A	Air Fresheners in Room	No
Mechanical Equipment Location	oof Top		Mechanical Room Clean	N/A
Filters Installed Properly N/A	Filters Clean		Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location R	oof top	▼	Fresh Air Intake Free of Obstruction	
Intake		▼		
Observations				
Two square feet water damaged water coming up between tiles and spots PPO) - Trash / debris in all sinks (1	s on floor - Minor dust on su	rfaces - Ceiling tiles at		

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean sanitize and wax flooring	▼
Clean debris from sinks and traps	
Thoroughly clean all surfaces	▼
Clean HVAC return grills with Wexcide	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Contourve Actions to be completed by 110	
Evaluate and repair cause of water damage	▼
Remove and replace wall material as necessary	▼
Remove and replace ceiling tiles at HVAC	▼
supply grills - require cuts	▼
	▼
	▼
	▼
	▼

Northeast High Eva	aluation Date October 26, 2012 Time of Day 1:30
Outdoor Conditions Temperature 76.8	Relative Humidity 82.1 Ambient CO2 452
Fish Temperature Range Relative Hur 185 65.3 72 - 78 52.4	midity Range CO ² Range # Occupants 30% - 60% MAX 700 > 1 Ambient
Noticeable Odor No Visible water do staining? Ceiling Open Tectum Deck No	
Walls Plaster No Floor 12" x 12" Vinyl Yes	No 1 tile under drinking fountain
Ceiling Clean Yes Walls Clean Yes Inside of Duct Cle	dean Yes Grills Clean No Inside of Return
Room Surfaces Yes Ceiling a Clean Grills Cl	at Supply lean N/a
Trash Removed No Exhaust Fans Signs of Pests No Drain T	Cleaners in Room No
Room Cluttered No Food if Stored in Sealed Conta	
Mechanical Equipment Location Roof Top Filters Installed Properly N/A Filte	Mechanical Room Clean N/A ers Clean N/A Inside of HVAC Unit Clean N/A
Condensate Pan Clean N/A Cooling C	
Fresh Air Intake Location Roof top Pollutant Sources Near Air Intake	▼ Fresh Air Intake Free of Obstruction
Observations Three of four HVAC supply grills covered with black produced fountain - Dirt and debris on floor - trash can not emp	plastic trash bags (room cold) - Stain on flooring under drinking ptied - HVAC return grill has minor dust
Corrective Actions to be Completed by Site Based St	
Ensure trash cans are emptied daily Thoroughly clean and sanitize flooring	▼ Set temperature to 72 - 78 degrees ▼ Repair leaking drinking fountain ▼
Clean HVAC return grills with Wexcide	▼
	▼ ▼
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Northeas	t High Evaluation Dat	October 26, 2012	Time of Day 1	:30
Outdoor Conditions Temperature	76.8 Relative	Humidity 82.1	Ambient CO2 45	52
Fish Temperature Range 259 70.3 72 - 78		Range CO ² % - 60%	Range # Oc MAX 700 > Ambient	ccupants 1
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in	Yes	No	1 tile	
Walls Plaster	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean Yes Walls Clean No	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No
Flooring Clean Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A
Room Surfaces Yes Clean	Ceiling at Supply Grills Clean	No		
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No	Drain Traps Wet	N/A	Air Fresheners	No
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	in Room	110
Mechanical Equipment Location Roo	f Top		Mechanical Room Clean	N/A
Filters Installed Properly N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location Roo	f top	▼	Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake		▼	or obstruction	
Observations				_
Humidity in room elevated - One stair part not painted - dirty where not pair supply grills (6 need cuts PPO)			<u>-</u>	

Corrective Actions to be Completed by Site Based Staff

constant a none to be completed by one bacca of	
Clean dirt and debris from bottom of walls	▼
Remove and replace A/C filters	▼
Replace stained ceiling after repair completed	▼
	▼
	▼
	•
	▼
	•

Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Evaluate and repair cause of stained ceiling tiles	▼
Remove and replace ceiling tiles at HVAC	▼
supply grills - require cuts	▼
	▼
	▼
	▼
	▼

Northeast High Eva	uation Date October 26, 20	12 Time of Day 1:30
Outdoor Conditions Temperature 76.8	Relative Humidity 82.1	Ambient CO2 452
Fish Temperature Range Relative Hur 268 73.9 72 - 78 64.8		CO ² Range # Occupants 458 MAX 700 > 1 Ambient
Noticeable Odor Yes Visible water do staining		Amount of material affected
Ceiling 2' X 4' Lay in No	No	400.0 %
Walls Plaster Yes Floor 12" x 12" Vinyl No.	No No	100 Sq ft
No No	No	
Ceiling Clean Yes HVAC S Grills Cl		HVAC Return Grills Clean No
Flooring Clean Yes Inside o		Inside of Return Duct Clean Yes
Room Surfaces Yes Ceiling a Grills Cl	t Supply ean Yes	
Trash Removed Yes Exhaust Fans Signs of Pests No Drain T		Unapproved Chemicals / Cleaners in Room
Room Cluttered No Drain T Food if Stored in Sealed Conta	I NI/A I	Air Fresheners No in Room
Mechanical Equipment Location Roof Top		Mechanical Room Clean N/A
Filters Installed Properly N/A Filter	rs Clean N/A	Inside of HVAC Unit Clean N/A
Condensate Pan Clean N/A Cooling C	oil Clean N/A	
Fresh Air Intake Location Pollutant Sources Near Air Intake	\	of Obstruction
Observations		
Humidity in room elevated - Water damaged exterior wall in 268A behind washer and dryer - Return grill ha		d both sides of door - water damaged
Corrective Actions to be Completed by Site Based S		ctions to be Completed by PPO
Clean HVAC return grills with Wexcide	 	C to reduce humidity level
	- -	repair cause of water damage lace wall material as necessary
	▼	▼

Northeast	t High Eval ı	uation Da	October 2	26, 2012	Time of Day	1:30
Outdoor Conditions Temperature	76.8	Relativ	e Humidity	82.1	Ambient CO2	452
Fish Temperature Range 276 68.1 72 - 78	Relative Hum	i	Range 0% - 60%	CO ² 450	Range # C MAX 700 > Ambient	Occupants 1
Noticeable Odor Yes Ceiling 2' X 4' Lay in Walls Plaster Floor 12" x 12" Vinyl	Visible water dan staining? No No No	mage /	Visible mid growth No No		Amount of material affected	
Ceiling Clean Walls Clean Flooring Clean Room Surfaces Clean Yes Yes	HVAC Su Grills Cle Inside of Duct Clea Ceiling at Grills Cle	an Supply an : Supply	Yes No Yes		HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Trash Removed Yes Signs of Pests No Room Cluttered No	Exhaust Fans \ Drain Tr Food if Stored in in Sealed Contain	aps Wet Room is	N/A N/A		Jnapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location Roof Filters Installed Properly N/A Condensate Pan Clean N/A	f Top Filter: Cooling Co	s Clean il Clean	N/A N/A		Mechanical Room Clean	N/A
Fresh Air Intake Location Roof Pollutant Sources Near Air Intake	ftop			V	Fresh Air Intake Free of Obstruction	
Observations Musty odor in room - Humidity in room elevated - Inside of supply duct has dust build up - Minor dust on book cases and shelves - Spotty microbial growth inside of corner wood cabinet back of room (clean and monitor for return)						
Corrective Actions to be Completed by Site Based Staff Corrective Actions to be Completed by PPO						
Thoroughly clean all surfa	nces	▼			educe humidity level	▼
Clean inside of corner cabinet wi	th wexcide	▼		Clean HVA	C supply drop	▼
and monitor		▼				▼

▼ ▼ ▼ ▼

Northeast High	Evaluation Date	te October	26, 2012	Time of Day	1:30
Outdoor Conditions Temperature 76.8	Relative	Humidity	82.1	Ambient CO2 4	52
	 i	Range % - 60%	442		ccupants 1
	ter damage / ning?	Visible mi growt		Amount of material affected	
Ceiling 2' X 4' Lay in	lo	No			
Walls Plaster N	lo	No			
Floor 12" x 12" Vinyl	lo	No			
	AC Supply Ils Clean	Yes		HVAC Return Grills Clean	No
Ins	ide of Supply ct Clean	No		Inside of Return Duct Clean	Yes
	ling at Supply lls Clean	Yes			
Trash Removed Yes Exhaust	Fans Working	N/A		Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Di	rain Traps Wet	N/A			
Room Cluttered No Food if Sto in Sealed C	red in Room is Containers	N/A		Air Fresheners in Room	No
Mechanical Equipment Location Roof Top				Mechanical Room Clean	N/A
Filters Installed Properly N/A	Filters Clean	N/A		Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A Cooli	ing Coil Clean	N/A			
Fresh Air Intake Location Roof top			▼	Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake			▼	or obstruction	
Observations					
Humidity in room elevated - Minor dust on shelve dust build up	es - Inside of s	upply duct h	as dust b	uild up - Return grill has ı	minor
Corrective Actions to be Completed by Site Bas	ed Staff	Correc	tive Actio	ns to be Completed by PI	°
Thoroughly clean all surfaces	 ▼ 	Repa		o reduce humidity level	V
Clean HVAC return grills with Wexcide	▼		Clean H	VAC supply drop	▼
	▼				▼
	1_1_1				1 1

Northeast High Ev	aluation Date Octol	ber 26, 2012	Time of Day	1:30
Outdoor Conditions Temperature 76.8	Relative Humidity	82.1	Ambient CO2	452
Fish Temperature Range Relative Hu 2503 75.9 72 - 78 76.6	umidity Range 30% - 60%	CO ² 508	Range # MAX 700 > Ambient	Occupants 2
Noticeable Odor No Visible water of staining Ceiling 2' X 4' Lay in No	g? gr	e microbial owth?	Amount of material affected	ı
Ceiling 2' X 4' Lay in No Walls Drywall No	_	No		
Floor 12" x 12" Vinyl No		No		
Ceiling Clean Yes HVAC S Grills C Walls Clean No	Clean Yes		HVAC Return Grills Clean Inside of Return	Yes
Flooring Clean Yes Duct Cl			Duct Clean	Yes
Room Surfaces Yes Ceiling Clean Grills C	at Supply Clean			
Trash Removed Yes Exhaust Fan			Unapproved Chemicals Cleaners in Room	No No
Signs of Pests No Drain Room Cluttered No Food if Stored in Sealed Conta	I NI/A I		Air Fresheners in Room	No
Mechanical Equipment Location Bard Q-tec in room	1		Mechanical Room Clea	n N/A
Filters Installed Properly Yes Filt	ers Clean No	1	Inside of HVAC Unit Clea	n N/A
Condensate Pan Clean N/A Cooling (Coil Clean N/A			
Fresh Air Intake Location Pollutant Sources Near Air		▼	Fresh Air Intake Free of Obstruction	Yes
Intake Black olive trees /	parking area			
Observations HVAC unit noisy - Humidity in room elevated - HVAC stripping floors)	ិ filter dirty - Walls នរុ	olattered / dirt	y all around room (ma	y be from
Corrective Actions to be Completed by Site Based S	Staff Cor	rective Action	ns to be Completed by	PPO
Remove and replace A/C filters	▼ Re	pair HVAC to	reduce humidity level	▼
Clean wall surfaces	▼ Repa	air HVAC to re	duce noise level in roc	om ▼
	<u> </u>			▼