

Aston A. Henry, Director
Risk Management Department

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November 17, 2014

Signature on File

TO: Sharon Boyd, Principal
Lake Forest Elementary School

FROM: Richard Rosa, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed

On November 10, 2014, I conducted an assessment at **Lake Forest Elementary 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: Shelley Meloni, Executive Director, Facilities & Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division
Aston Henry, Director, Risk Management
Sonja Coley, Senior Project Manager, Facilities & Construction
Broward Teachers Union
Federation of Public Employees

RR/tc
Enc.

IAQ Assessment

Lake Forest Elementary

 Evaluation Date November 10, 2014

 Time of Day 11:30

 Outdoor Conditions Temperature 78.6

 Relative Humidity 75.8

 Ambient CO2 466

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
P-105	71.2	72 - 78	45.2	30% - 60%	2297	MAX 700 > Ambient	23
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	Drywall		No		No		
Walls	Homasote		No		No		
Floor	Rug / 12"x12"		No		No		
Ceiling Clean	Yes	HVAC Supply Grills Clean		No	HVAC Return Grills Clean		No
Walls Clean	Yes	Inside of Supply Duct Clean		N/A	Inside of Return Duct Clean		N/A
Flooring Clean	Yes	Ceiling at Supply Grills Clean		Yes			
Room Surfaces 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 in Room		No
Room Cluttered	Yes	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location	Window unit					Mechanical Room Clean	N/A
Filters Installed Properly	Yes	Filters Clean		No	Inside of HVAC Unit Clean		No
Condensate Pan Clean	N/A	Cooling Coil Clean		No			
Fresh Air Intake Location	Window unit ▼					Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No ▼						

Observations

The paint is rippled on the painted ceiling in front of the window unit HVAC's, but there is no moisture in the drywall per moisture meter. Evaluate the fresh air dampers on both units for normal operation and adjust appropriately. The East and West exterior T111 is wet per moisture meter, evaluate for replacement. If replacement is necessary, check the wall insulation for moisture and replace if necessary. Evaluate the weather stripping on both doors.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean elevated surfaces	▼
Vacuum/wexcide window unit grills	▼
Remove and replace A/C filters	▼
Set the thermostat to SBBC limits 72-78 and monitor	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to reduce CO2 level in classroom	▼
Evaluate the cleaning of both HVAC coils	▼
	▼
	▼
See observations for additional information	▼
	▼
	▼
	▼

IAQ Assessment

Lake Forest Elementary

Evaluation Date November 10, 2014

Time of Day 10:00

Outdoor Conditions Temperature 78.6 Relative Humidity 75.8 Ambient CO2 466

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
P-512C	72.6	72 - 78	67.5	30% - 60%	558	MAX 700 > Ambient	
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		Yes		No		2 ceiling tiles
Walls	Homasote		Yes		Yes		< 1 sq ft
Floor	12" x 12" Vinyl		No		No		

Ceiling Clean	No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Walls Clean	No	Inside of Supply Duct Clean	N/A	Inside of Return Duct Clean	N/A
Flooring Clean	No	Ceiling at Supply Grills Clean	Yes		

Trash Removed	N/A	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	Window unit		Mechanical Room Clean	N/A	
Filters Installed Properly	Yes	Filters Clean	No	Inside of HVAC Unit Clean	No
Condensate Pan Clean	N/A	Cooling Coil Clean	No		

Fresh Air Intake Location	Window unit ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No ▼		

Observations

unoccupied at time of assessment

Ceiling tile stains are due to Window HVAC units that blow onto ceiling grid with warm air above drop ceiling combined with cool temperatures on metal ceiling grid, hence the condensation. The wall stain is under the West HVAC unit, repair cause of water intrusion and replace wall panel. There is a rolled up rug in the classroom, if not going to be used, relocate rug. Microbial growth is visible on both HVAC window unit grills.

Corrective Actions to be Completed by Site Based Staff

Remove and replace stained ceiling tiles	▼
Thoroughly clean and sanitize flooring	▼
Thoroughly clean horizontal surfaces	▼
Vacuum/wexcide window unit grills	▼
Remove and replace A/C filters	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate the cause of wall staining, repair/replace wall material as necessary	▼
Repair HVAC to reduce humidity level	▼
Clean both window unit coils	▼
	▼
	▼
See observations for additional information	▼
	▼