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Risk Management Department

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August 8, 2013

Signature on File

TO: Jocelyn Reid, Principal  
**Deerfield Park Elementary School**

FROM: Robert Krickovich, Coordinator I, LEA  
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 August 7, 2013, I conducted an assessment at **Deerfield Park 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, Task Assigned Chief Facilities & Construction Officer, 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

RK/tc  
Enc.

# IAQ Assessment

Deerfield Park Elementary

 Evaluation Date August 7, 2013

 Time of Day 3:00

 Outdoor Conditions    Temperature 85.1

 Relative Humidity 80.2

 Ambient CO2 501

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">509</span>	<span style="border: 1px solid black; padding: 2px;">72.1</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">74.4</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">453</span>	<span style="border: 1px solid black; padding: 2px;">MAX 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">2</span>
Noticeable Odor		<span style="border: 1px solid black; padding: 2px;">No</span>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<span style="border: 1px solid black; padding: 2px;">Drywall</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>
Walls	<span style="border: 1px solid black; padding: 2px;">Drywall</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>
Floor	<span style="border: 1px solid black; padding: 2px;">Quarry Tile</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>
Ceiling Clean	<span style="border: 1px solid black; padding: 2px;">No</span>	HVAC Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>	HVAC Return Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>
Walls Clean	<span style="border: 1px solid black; padding: 2px;">No</span>	Inside of Supply Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Return Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>
Flooring Clean	<span style="border: 1px solid black; padding: 2px;">No</span>	Ceiling at Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>			
Room Surfaces Clean	<span style="border: 1px solid black; padding: 2px;">No</span>						
Trash Removed	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Unapproved Chemicals / Cleaners in Room		<span style="border: 1px solid black; padding: 2px;">No</span>
Signs of Pests	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Drain Traps Wet		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Air Fresheners in Room		<span style="border: 1px solid black; padding: 2px;">No</span>
Room Cluttered	<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers		<span style="border: 1px solid black; padding: 2px;">Yes</span>			
Mechanical Equipment Location	<span style="border: 1px solid black; padding: 2px;">FISH 517</span>					Mechanical Room Clean	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Filters Installed Properly	<span style="border: 1px solid black; padding: 2px;">Yes</span>	Filters Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of HVAC Unit Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>
Condensate Pan Clean	<span style="border: 1px solid black; padding: 2px;">No</span>	Cooling Coil Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>			
Fresh Air Intake Location	<span style="border: 1px solid black; padding: 2px;">Roof top</span> ▼					Fresh Air Intake Free of Obstruction	<span style="border: 1px solid black; padding: 2px;">Yes</span>
Pollutant Sources Near Air Intake	<span style="border: 1px solid black; padding: 2px;">None</span> ▼						

### Observations

4 dead cockroaches on floor - Minor spotty microbial on stainless steel table, stainless steel ice machine, ceramic tile walls, vinyl table cloth, and on bakers table - Dust and debris build up on ceilings, walls, HVAC supply grills and HVAC return grills.

Humidity levels elevated - standing water in condensate pan - water in secondary pan under unit - valve on chilled water pipe leaking on floor

### Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Clean ceilings around HVAC supply grills	▼
Clean HVAC supply and return grills with Wexcide	▼
Discard vinyl table cloth	▼
	▼
	▼
	▼
	▼

### Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Repair leaking water valve	▼
Repair leaking HVAC unit	▼
Pitch unit to drain condensate	▼
Generate work order for pest control	▼
	▼
	▼
	▼

# IAQ Assessment

Deerfield Park Elementary

 Evaluation Date August 7, 2013

 Time of Day 3:00

 Outdoor Conditions    Temperature 85.1

 Relative Humidity 80.2

 Ambient CO2 501

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">509G</span>	<span style="border: 1px solid black; padding: 2px;">72.8</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">84.6</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">468</span>	<span style="border: 1px solid black; padding: 2px;">MAX 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">2</span>
Noticeable Odor		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<span style="border: 1px solid black; padding: 2px;">2' X 4' Lay in</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>
Walls	<span style="border: 1px solid black; padding: 2px;">Drywall</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>		<span style="border: 1px solid black; padding: 2px;">2 sq ft left of Supply grill</span>
Floor	<span style="border: 1px solid black; padding: 2px;">Quarry Tile</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>
Ceiling Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>		HVAC Return Grills Clean <span style="border: 1px solid black; padding: 2px;">No</span>
Walls Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Supply Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>		Inside of Return Duct Clean <span style="border: 1px solid black; padding: 2px;">Yes</span>
Flooring Clean		<span style="border: 1px solid black; padding: 2px;">No</span>	Ceiling at Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">No</span>		
Room Surfaces Clean		<span style="border: 1px solid black; padding: 2px;">No</span>					
Trash Removed		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working		<span style="border: 1px solid black; padding: 2px;">N/A</span>		Unapproved Chemicals / Cleaners in Room <span style="border: 1px solid black; padding: 2px;">No</span>
Signs of Pests		<span style="border: 1px solid black; padding: 2px;">No</span>	Drain Traps Wet		<span style="border: 1px solid black; padding: 2px;">N/A</span>		Air Fresheners in Room <span style="border: 1px solid black; padding: 2px;">No</span>
Room Cluttered		<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers		<span style="border: 1px solid black; padding: 2px;">N/A</span>		
Mechanical Equipment Location			<span style="border: 1px solid black; padding: 2px;">FISH 517</span>			Mechanical Room Clean <span style="border: 1px solid black; padding: 2px;">Yes</span>	
Filters Installed Properly		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Filters Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>		Inside of HVAC Unit Clean <span style="border: 1px solid black; padding: 2px;">Yes</span>
Condensate Pan Clean		<span style="border: 1px solid black; padding: 2px;">No</span>	Cooling Coil Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>		
Fresh Air Intake Location			<span style="border: 1px solid black; padding: 2px;">Roof top</span> ▼			Fresh Air Intake Free of Obstruction <span style="border: 1px solid black; padding: 2px;">Yes</span>	
Pollutant Sources Near Air Intake			<span style="border: 1px solid black; padding: 2px;">None</span> ▼				

## Observations

Musty odor in room - microbial growth on wood desk, credenza and hutch - microbial growth on two cloth chairs - spotty microbial growth on wall left of HVAC supply grill over window - heavy dust on top of hutch - minor dust on all surfaces - Chairs will need to be discarded, furniture can be cleaned and monitor, if growth returns, furniture may also need to be disposed of.

Humidity levels elevated - standing water in condensate pan - water in secondary pan under unit - valve on chilled water pipe leaking on floor

## Corrective Actions to be Completed by Site Based Staff

Thoroughly clean all surfaces	▼
Clean ceilings around HVAC supply grills	▼
Clean HVAC supply and return grills with Wexcide	▼
Clean wood furniture and monitor	▼
Discard cloth chairs	▼
Clean spotty growth from wall	▼
	▼
	▼

## Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Repair leaking water valve	▼
Repair leaking HVAC unit	▼
Pitch unit to drain condensate	▼
	▼
A/C in building 6 still having problems	▼
Humidity 64% in room 603	▼
	▼