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August 22, 2007

Signature on File

TO: Ms. Marisol Smith, Principal
West Hollywood Elementary School

FROM: Edward See, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment
Portable 164N, 622P, 873C, 1105PK, 1117PK

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

On August 17, 2007 I conducted a follow-up assessment of Portable 164N, 622P, 873C, 1105PK and 1117PK at **West Hollywood Elementary School**. The assessment consisted of a reevaluation walkthrough of the previously identified area to assess the current condition of the location with regard to indoor air quality. This assessment included reviewing previously generated work orders as well as observation of the area of concern as stated in the IAQ Assessments performed on April 27, 2007. Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if 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. 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. Joel Herbst, Area Superintendent
Valerie Wanza, Area Director
Jeffrey S. Moquin, Director, Risk Management
Rodney Williams, Project Manager, Facilities and Construction Management
Diane Watts, 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.

IAQ Assessment

West Hollywood Elementary School

Location Number 0161
 Evaluation Requested August 16, 2007
 Evaluation Date August 17, 2007

Time of Day

Outdoor Conditions Temperature 86.5 Relative Humidity 87.2 Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-164N	71.4	72 - 78	41.9	30% - 60%	591	Max 700 > Ambient	1
Noticeable Odor	Yes		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	Wood Paneling		Yes		No		1 Panel
Wall Type	Tackable		Yes		No		North Wall
Flooring	Vinyl		No		No		None

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Repair/replace ceiling material
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Visible staining on 1 ceiling panel
- Small gap at East door between door and frame
- One damaged floor tile at West door
- Visible staining on North wall under dry erase board and on board. Moisture content is not elevated.
- Elevated moisture content in South wall (18% WME) under A/C unit. Wall reveals signs of previous water damage. Possible drain pan leak.

-Recommendations:

Site Based Maintenance:

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate cause of stained ceiling panel and repair as appropriate. Repair/replace ceiling material as appropriate.
- Evaluate gap at East door between door and frame and repair as appropriate to prevent water intrusion and introduction of outside air
- Remove and replace damaged floor tile at West door
- Evaluate cause of elevated moisture content in South wall under A/C unit and staining on North wall under dry erase board and repair as appropriate. Repair/replace wall material as appropriate.

IAQ Assessment

West Hollywood Elementary School

Location Number 0161
 Evaluation Requested August 16, 2007
 Evaluation Date August 17, 2007

Time of Day

Outdoor Conditions Temperature 86.5 Relative Humidity 87.2 Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-622P	73.2	72 - 78	51.6	30% - 60%	524	Max 700 > Ambient	4
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		Yes		No		3 Ceiling Tiles	
Ceiling Type	2 x 4 Lay In		Yes	No		1 square foot	
Wall Type	Tackable		Yes	Yes		None	
Flooring	Vinyl		No	No			

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Replace stained ceiling tiles
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	Yes	No	No	
Ceiling at Supply Grills				N/A
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Elevated moisture and visible microbial on wall under A/C unit
- A/C unit leaking
- 3 stained ceiling tiles

-Recommendations:

Site Based Maintenance:

- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate cause of elevated moisture content and microbial growth on wall under A/C unit and repair as appropriate (appears to be leak from A/C unit). Repair/replace wall material as appropriate.
- Evaluate cause of stained ceiling tiles and repair as appropriate. Remove and replace ceiling tiles.

IAQ Assessment

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West Hollywood Elementary School

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P-873C"/>	<input type="text" value="73.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="52.7"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="580"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text" value="1"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="2 Light Grids"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>	<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Wall Type	<input type="text" value="Tackable"/>	<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="Vinyl"/>	<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

Observations

Findings:
 - 2 rusted light grids above South A/C wall unit
 - Small gap at East door between door and frame
 - Elevated moisture content in East wall (23% WME) under dry erase board. Wall reveals signs of previous repair.

-Recommendations:
Site Based Maintenance:
 - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:
 - Evaluate cause of rusted light grids above South A/C wall unit and repair as appropriate. Replace light grids.
 - Evaluate gap at East door between door and frame and repair as appropriate to prevent water intrusion and introduction of outside air
 - Evaluate cause of elevated moisture content in East wall under dry erase board and repair as appropriate. Repair/replace wall material as appropriate.

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Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="P-1105PK"/>	<input type="text" value="71"/>	<input type="text" value="72 - 78"/>	<input type="text" value="51.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="580"/>	<input type="text" value="Max 700 > Ambient"/>	<input type="text"/>
Noticeable Odor	<input type="text" value="Yes"/>		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	<input type="text" value="4 x 10 Panels"/>		<input type="text" value="Yes"/>		<input type="text" value="Yes"/>		<input type="text" value="6 A/C Supply Grills"/>
Wall Type	<input type="text" value="Wood"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>
Flooring	<input type="text" value="Vinyl"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean with Wexcide disinfectant"/>
Ceiling at Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

Observations

Findings:

- Dust and debris, rust and microbial growth on all HVAC supply and return grills
- Bathroom has no exhaust fan
- Temperature was low at the time of the assessment

-Recommendations:

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution until PPO can facilitate replacement
- Adjust thermostat to increase temperature
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate cause of rust and microbial growth on A/C supply and return grills and repair as appropriate. Remove and replace all supply and return grills.
- Evaluate need for exhaust fan in restroom

IAQ Assessment

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Time of Day

Outdoor Conditions Temperature 86.5 Relative Humidity 87.2 Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-1117PK	72.6	72 - 78	53	30% - 60%	556	Max 700 > Ambient	21
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		Yes		Yes		4 Panels	
Ceiling Type	3 x 10 Panels		Yes	Yes	4 Panels		
Wall Type	Wood		No	No	None		
Flooring	Vinyl		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Repair/replace ceiling material
Walls	Yes	No	No	
Flooring	Yes	No	No	
HVAC Supply Grills	No	Yes	Yes	Clean with Wexcide disinfectant
HVAC Return Grills	No	Yes	Yes	Clean with Wexcide disinfectant
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

Observations

Findings:

- Visible staining on ceiling material in bathroom
- Visible staining and microbial growth on ceiling material on North side of room
- Dust and debris, rust and microbial growth on all HVAC supply and return grills

-Recommendations:

Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution until PPO can facilitate replacement
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate cause stained ceiling in bathroom and stained ceiling with visible microbial growth on North side of room and repair as appropriate. Repair/replace ceiling material as appropriate.
- Evaluate cause of rust and microbial growth on A/C supply and return grills and repair as appropriate. Remove and replace all supply and return grills.