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Risk Management Department

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January 12, 2012

**Signature on File**

TO: Jonathan Williams, Principal  
**Northeast High School**

FROM: Robert Krickovich, Coordinator, LEA  
Facilities and Construction Management

SUBJECT: Indoor Air Quality (IAQ) Assessment

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

On November 10, 2011 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 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

RK/tc  
Enc.

# IAQ Assessment

Location Number 1241  
 Evaluation Requested November 7, 2011  
 Evaluation Date November 10, 2011

Northeast High School

Time of Day 2:05 PM

Outdoor Conditions      Temperature 83.8      Relative Humidity 44.9      Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">211</span>	<span style="border: 1px solid black; padding: 2px;">74</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">61.5</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">638</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 Type	<span style="border: 1px solid black; padding: 2px;">Tectum</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;">None</span>		
Wall Type	<span style="border: 1px solid black; padding: 2px;">Plaster</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;">None</span>		
Flooring	<span style="border: 1px solid black; padding: 2px;">12 x 12 Vinyl</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;">None</span>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<span style="border: 1px solid black; padding: 2px;">Yes</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;">No</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
Flooring	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
HVAC Supply Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean with Wexcide disinfectant</span>
HVAC Return Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean with Wexcide disinfectant</span>
Ceiling at Supply Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
Surfaces in Room	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>

## Observations

**Findings**

- Musty odor in room
- Dust and cob webs on all walls
- Dust and debris on flooring
- Clothes in closet and on floor
- Dust and debris inside of cabinets
- Dust build up on surfaces throughout the room
- Dust and debris on HVAC supply and return grills and on ceiling at supply grills
- Humidity level was slightly elevated. (EQ Work Orders previously generated to address HVAC issues)

**Site Based Maintenance:**

- Wipe down walls
- Clean and sanitize flooring
- Clean out closet and cabinets and discard clothing or clean thoroughly
- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grill with Wexcide disinfectant solution and wipe down ceiling as appropriate
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**- NOTE: Custodial Supervisor was notified 11/16/11**

# IAQ Assessment

Location Number 1241  
 Evaluation Requested November 7, 2011  
 Evaluation Date November 10, 2011

Northeast High School

Time of Day 2:05 PM

Outdoor Conditions      Temperature 83.8      Relative Humidity 44.9      Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants	
222	77.8	72 - 78	53	30% - 60%	508	Max 700 > Ambient	4	
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected		
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> None		
Ceiling Type	<input type="checkbox"/> Tectum		<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> None	
Wall Type	<input type="checkbox"/> Plaster		<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> None	
Flooring	<input type="checkbox"/> 12 x 12 Vinyl		<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input type="checkbox"/> No	
Walls	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean as appropriate
Flooring	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean as appropriate
HVAC Supply Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A - No A/C
HVAC Return Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A - No A/C
Ceiling at Supply Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A - No A/C
Surfaces in Room	<input type="checkbox"/> No	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	Clean as appropriate

## Observations

**Findings**

- Girls Locker Room (noticeable odor from perfume)
- Dust and cob webs on all walls
- Dust and debris on flooring
- Dust build up on surfaces throughout the room
- All windows were open...some broken
- Plaster walls deteriorating, cracking, etc.

**Site Based Maintenance:**

- Wipe down walls
- Clean and sanitize flooring
- Thoroughly clean all surfaces throughout the room
- Contact COMPASS top generate work orders to repair windows and walls
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

- NOTE: Custodial Supervisor was notified 11/16/11

# IAQ Assessment

Location Number 1241

Northeast High School

Evaluation Requested November 7, 2011

Time of Day 2:05 PM

Evaluation Date November 10, 2011

Outdoor Conditions      Temperature 83.8      Relative Humidity 44.9      Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">222A</span>	<span style="border: 1px solid black; padding: 2px;">74.3</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">61.2</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">543</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 Type	<span style="border: 1px solid black; padding: 2px;">Plaster</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">Various</span>		
Wall Type	<span style="border: 1px solid black; padding: 2px;">Plaster</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">Various</span>		
Flooring	<span style="border: 1px solid black; padding: 2px;">12 x 12 Vinyl</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;">None</span>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<span style="border: 1px solid black; padding: 2px;">Yes</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;">No</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
Flooring	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
HVAC Supply Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean with Wexcide disinfectant</span>
HVAC Return Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean with Wexcide disinfectant</span>
Ceiling at Supply Grills	<span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;">N/A Wall Mounted Unit</span>
Surfaces in Room	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>

## Observations

<b>Findings</b>	<ul style="list-style-type: none"> <li>- Musty odor in room. Do not use A/C unit in room due to overwhelming odor when turned on.</li> <li>- Dust on walls and visible microbial growth on exterior wall under window and shelves.</li> <li>- Carpet on floor filthy</li> <li>- Dust build up on surfaces throughout the room</li> <li>- Dust and debris on HVAC supply and return grills</li> <li>- Plaster walls and ceiling deteriorating, cracking, etc.</li> <li>- FISH 222C (Storage Room) - Visible microbial growth on wood surfaces</li> <li>- Visible opening in door to FISH 222 allowing untreated air into conditioned space</li> </ul>
<b>Site Based Maintenance:</b>	<ul style="list-style-type: none"> <li>- Wipe down walls</li> <li>- Thoroughly clean all surfaces throughout the room</li> <li>- Clean HVAC supply and return grill with Wexcide disinfectant solution</li> <li>- Wipe down surfaces in FISH 222C with Wexcide disinfectant solution</li> <li>- Contact COMPASS top generate work orders to repair walls and ceiling</li> <li>- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate</li> </ul>
<b>Physical Plant Operations:</b>	<ul style="list-style-type: none"> <li>- Evaluate and repair wall mounted A/C unit and clean as appropriate</li> <li>- Remove carpet and replace with tile</li> <li>- Evaluate door to FISH 222 and repair as appropriate to close opening allowing outside untreated air into space</li> </ul>
	<b>- NOTE: Custodial Supervisor was notified 11/16/11</b>

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Northeast High School

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Outdoor Conditions      Temperature 83.8      Relative Humidity 44.9      Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
224	78.3	72 - 78	52.3	30% - 60%	471	Max 700 > Ambient	20
Noticeable Odor	Yes		Visible water damage / staining?	Visible microbial growth?	Amount of material affected		
Ceiling Type	Tectum		No	No	None		
Wall Type	Plaster		No	No	None		
Flooring	12 x 12 Vinyl		No	No	None		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
Walls	No	Yes	Yes	Clean as appropriate
Flooring	No	Yes	Yes	Clean as appropriate
HVAC Supply Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A - No A/C
HVAC Return Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A - No A/C
Ceiling at Supply Grills	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	N/A - No A/C
Surfaces in Room	No	Yes	Yes	Clean as appropriate

## Observations

**Findings**

- Boys Locker Room
- Dust and cob webs on all walls
- Dust and debris on flooring
- Dust build up on surfaces throughout the room
- All windows were open...some broken
- Plaster walls deteriorating, cracking, etc.

**Site Based Maintenance:**

- Wipe down walls
- Clean and sanitize flooring
- Thoroughly clean all surfaces throughout the room
- Contact COMPASS top generate work orders to repair windows and walls
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

**- NOTE: Custodial Supervisor was notified 11/16/11**

# IAQ Assessment

Location Number 1241  
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Northeast High School

Time of Day 2:05 PM

Outdoor Conditions      Temperature 83.8      Relative Humidity 44.9      Ambient CO2 463

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">224A</span>	<span style="border: 1px solid black; padding: 2px;">70.7</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">55.6</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">501</span>	<span style="border: 1px solid black; padding: 2px;">Max 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">1</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 Type	<span style="border: 1px solid black; padding: 2px;">Plaster</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">Various</span>		
Wall Type	<span style="border: 1px solid black; padding: 2px;">Plaster</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">Various</span>		
Flooring	<span style="border: 1px solid black; padding: 2px;">12 x 12 Vinyl</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;">None</span>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<span style="border: 1px solid black; padding: 2px;">Yes</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;">No</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
Flooring	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>
HVAC Supply Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean with Wexcide disinfectant</span>
HVAC Return Grills	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean with Wexcide disinfectant</span>
Ceiling at Supply Grills	<span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;"></span>	<span style="border: 1px solid black; padding: 2px;">N/A Wall Mounted Unit</span>
Surfaces in Room	<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;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">Clean as appropriate</span>

## Observations

**Findings**

- Musty odor in room
- Dust on walls
- Dust and debris on flooring
- Dust build up on surfaces throughout the room
- Dust and debris on HVAC supply and return grills
- Plaster walls deteriorating, cracking, etc.
- FISH 226A (Storage Room) - Visible microbial growth on wood surfaces

**Site Based Maintenance:**

- Wipe down walls
- Clean and sanitize flooring
- Thoroughly clean all surfaces throughout the room
- Clean HVAC supply and return grill with Wexcide disinfectant solution
- Wipe down surfaces in FISH 226A with Wexcide disinfectant solution
- Contact COMPASS top generate work orders to repair walls
- 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 and repair wall mounted A/C unit and clean as appropriate

**- NOTE: Custodial Supervisor was notified 11/16/11**