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September 8, 2003

PRIORITY

TO: Karla Gray-Orange, Principal
Maplewood Elementary School

FROM: Aston A. Henry, Jr., Supervisor
Risk Management Department

**SUBJECT: Indoor Environmental Quality Assessment
Maplewood Elementary School
FISH 201, 202, 203 & 404**

On September 4, 2003, the Risk Management Department conducted an assessment of **FISH 201, 202, 203 & 404 at Maplewood Elementary School**. The evaluation consisted of a walkthrough of the identified areas to assess the current conditions of these locations with regard to indoor environmental quality. This assessment included observation of the carpet, floor tiles, ceiling tiles, false ceiling plenum, accessible ventilation supply and interior walls for signs of water intrusion.

Outlined below are the findings of this assessment along with recommendations for further assessment and/or remediation:

1. The indoor environmental quality assessment of **FISH 201** revealed visible signs of microbial growth on the bathroom ceiling and walls. No visible signs of water intrusion were identified. The false ceiling plenum appeared clean and dry at the accessed location. The Assistant Principal reported complaints of possible mold and mildew. The exhaust fan in the bathroom (**FISH 201A**) is currently non-operational. The ceiling tiles, walls, and tile floor appeared clean on the date of the assessment. The air supply diffuser and return air register grill revealed no signs of dust and debris buildup.

Below are the temperature, relative humidity and carbon dioxide levels measured in this location on September 4, 2003.

	Temperature	Humidity	CO2
FISH 201	73.9f	65%	850

The humidity level measured on the date of the assessment exceeds the ASHRAE (American Society of Heating and Refrigeration and Air-Conditioning Engineers) recommended criteria range of 60%.

RECOMMENDED COURSE OF ACTION

The Maintenance Department will initiate a work order to address the following items:

- Evaluate and repair as appropriate, the air-handler unit servicing this location in order to lower the humidity level.
- Repair the exhaust fan servicing the bathroom (201A).
- Install a return air register grill within the bathroom (FISH 201A) in order to provide positive air circulation.
- The Maintenance Department will contact Aston Henry, Jr. of the Risk Management Department to provide a status on completion of the above items.

Site-Based Staff will complete the following items immediately:

- Site-based maintenance staff will clean the walls and ceiling with a wexcide disinfectant solution in order to remove any signs of microbial growth.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate.

2. The indoor environmental quality assessment of FISH 202 revealed visible signs of microbial growth on the walls and ceiling in the bathroom (FISH 202A). No visible signs of water intrusion were identified. The false ceiling plenum appeared clean and dry at the accessed location. Condensation appears to be forming in the light fixtures within this classroom. A dehumidifier is currently being utilized in this classroom. The tile floor, walls and ceiling tiles appeared clean on the date of the assessment. The Assistant Principal reported complaints of possible mold and mildew. The air supply diffusers revealed no signs of dust and debris buildup. The return air register grill revealed minor signs of dust and debris buildup.

Below are the temperature, relative humidity and carbon dioxide levels measured in this location on September 4, 2003.

	Temperature	Humidity	CO2
FISH 202	76.6f	68%	831

The humidity level measured on the date of the assessment exceeds the ASHRAE (American Society of Heating and Refrigeration and Air-Conditioning Engineers) recommended criteria range of 60%.

RECOMMENDED COURSE OF ACTION

The Maintenance Department will initiate a work order to address the following items:

- Evaluate and repair as appropriate, the air-handler unit servicing this location in order to lower the humidity level.

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- Install a return air register grill in the bathroom door (FISH 202) in order to provide positive air circulation.
- The Maintenance Department will contact Aston Henry, Jr. of the Risk Management Department to provide a status on completion of the above items.

Site-Based Staff will complete the following items immediately:

- Site-based maintenance staff will clean the walls and ceilings with a wexcide disinfectant solution in order to remove any signs of microbial growth.
 - Site-based maintenance staff will clean the return air register grill with a wexcide disinfectant solution in order to remove any signs of microbial growth.
 - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate.
3. The indoor environmental quality assessment of **FISH 204 (Air-Handler Room)** revealed visible signs of microbial growth on the wall directly behind the air-handlers. The coils within air-handler # 3 and # 4 are extremely dirty. The filtration media within AHU # 3 and # 4 appeared dirty and should be removed as soon as possible.

RECOMMENDED COURSE OF ACTION

The Maintenance Department will initiate a work order to address the following items:

- Evaluate and clean as appropriate, the coils within air-handler # 3 and # 4.
- Repair the wall directly behind the air-handler units, remove the microbial growth, evaluate the wall for signs of water intrusion and repair the wall as appropriate.
- The Maintenance Department will contact Aston Henry, Jr. of the Risk Management Department to provide a status on completion of the above items.

Site-Based Staff will complete the following items immediately:

- Site-based maintenance staff will remove the dirty air-handler filters and install new air-handler filters.
 - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate.
4. The indoor environmental quality assessment of **FISH 404** revealed visible signs of microbial growth on the tackable wall surface on the south wall. Risk Management was unable to detect any signs of water intrusion. The false ceiling plenum appeared clean and dry at the accessed location. The Assistant Principal reported complaints of possible mold and mildew. The ceiling tiles and floor tiles appeared clean on the date of the assessment. The return air register grill and air supply diffuser revealed no signs of dust and debris buildup.

Below are the temperature, relative humidity and carbon dioxide levels measured in this location on September 4, 2003.

	Temperature	Humidity	CO2
FISH 404	79.6f	47%	1020

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RECOMMENDED COURSE OF ACTION

The Maintenance Department will initiate a work order to address the following items:

- Evaluate the exterior south wall for signs of water intrusion and repair as appropriate.
- Remove the damaged tackable wall surface on the interior south wall and repair the wall as appropriate.
- The Maintenance Department will contact Aston Henry, Jr. of the Risk Management Department to provide a status on completion of the above items.

Site-Based Staff will complete the following items immediately:

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

The indoor environmental quality assessment revealed a number of items that should be addressed as soon as possible. Please have your site-based maintenance staff implement the above recommendations in order to improve the indoor environmental quality for all occupants within your school.

Generally, the Risk Management Department did not identify any existing conditions significantly impacting IEQ and thereby presenting immediate health and safety concerns 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 IEQ, prevent development of future IEQ-related problems, and reduce the potential for IEQ-related complaints by building occupants, the Risk Management Department recommends appropriate follow up of each item identified and previously listed.

Should any questions or concerns arise, or if these complaints continue after the above recommendations have been addressed, please feel free to contact me at (954) 765-8864.

AAH/ldh

c: Dr. Jo-Anne Harrison, North Area Superintendent
Ulysses Jackson, North Area Director School Improvement
Greg Boardman, Project Manager, Facilities and Construction Management
Ruby Fitzgerald, Broward Teachers Union.