

Jeffrey S. Moquin, Director  
Risk Management Department

Telephone: 754-321-3200  
Facsimile: 754-321-3290

September 22, 2005

**Signature on File**

TO: Ms. Mary Lou Ridge, Principal  
**Bethune Elementary School**

FROM: Robert J. Krickovich, Coordinator, LEA  
Facilities and Construction Management, Environmental Division

SUBJECT: Indoor Air Quality (IAQ) Assessment  
FISH 916

On August 30, 2005 the IAQ Assessment Team conducted an assessment of FISH 916 at **Bethune Elementary School**. The evaluation consisted of a walkthrough of the identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included observations of the carpet, floor tile, ceiling tile, interior walls, false ceiling plenum, and accessible ventilation equipment.

Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if needed.

Generally, the IAQ Assessment did not identify any existing conditions significantly impacting IAQ 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 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.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-1638.

cc: Sam Gregg, Area Superintendent  
Margaret Underhill, Area Director  
Jeffrey S. Moquin, Director, Risk Management  
Bertram Lewars, Project Manager II, Facilities and Construction Management  
Jerrod Neal, Broward Teachers Union  
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1  
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc  
Enc.

# IAQ Assessment

Location Number 0341

Bethune Elementary School

Evaluation Requested August 30, 2005

Time of Day 9:10 am

Evaluation Date August 30, 2005

Outdoor Conditions      Temperature 87.1      Relative Humidity 72.8      Ambient CO2 401

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
916	72.3	72 - 78	55.9	30% - 60%	923	Max 700 > Ambient	32
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		Yes		No		2 ceiling tiles	
Wall Type		No		No		None	
Flooring		No		No		None	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	Yes	No	No	
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	No	Yes	Yes	Clean as appropriate

## Observations

- Findings:**
- One stained ceiling tile over sink and one stained ceiling tile over right side of whiteboard
  - Dust and debris on environmental surfaces throughout room. Room is cluttered (boxes, papers, books) and all shelves and bookcases are full.
  - Throw rugs in room are stained and dirty
  - Non-approved items and chemicals in room (8 stuffed animals, 2 bean bag chairs, Clorox, Spitfire, Elmers spray glue, spray glitter and spray snow)
  - One wall is Homasote (see attached MSDS)
  - Backsplash at sink needs to be recaulked

**Recommendations:**

**Site Based Maintenance:**

- Remove and replace stained ceiling tile over sink and over right side of whiteboard
- Remove all non-approved items and chemicals from room
- Clean or remove throw rugs from room
- Clean environmental surfaces as appropriate and encourage occupant to reduce clutter to assist in cleaning efforts
- 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 Division:**

- Recaulk backsplash at sink

**Material Safety Data Sheet**

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910 1200. Standard must be consulted for specific requirements.

**U.S. Department of Labor**

Occupational Safety and Health Administration  
(Non-Mandatory Form)  
Form Approved  
OMB No. 1218-0072

**Homasote Company**

IDENTITY (as Used on Label and List)  
**HOMASOTE BOARD\* RECYCLED  
PAPER (CELLULOSE) FIBER  
NCFR, NCFR SUBSTRATE  
DECORATIVE PANELS**

Note: Blank spaces are not permitted. If any item is not applicable or no information is available, the space must be marked to indicate that.

**Section I**

Manufacturer's name	Emergency Telephone Number
Homasote Company	609-883-3300
Address (Number, Street, City, State and ZIP Code)	Telephone Number for Information
P.O. BOX 7240 WEST TRENTON, NJ 08628 (off lower ferry road)	609-883-3300
	Date Prepared
	July 22, 1999
	Signature of Preparer (optional)

**Section II—Hazardous Ingredients/Identity Information**

Hazardous Components (Specific Chemical Identity, Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Paraffin Wax CAS # 8002-74-2		2mg/m <sup>3</sup>		1 to 2%
THE FOLLOWING COMPONENTS MAY BE SUBJECT TO ANNUAL REPORTING. SEE SECTION 313 OF TITLE 111 OF SARA				
Aluminum Oxide CAS # 1344-28-1			40 to 50%	
Copper Compounds			less than 0.1%	
Nickel CAS # 7440-02-0				0.15%

**Section III—Physical/Chemical Characteristics**

Boiling Point	NA	Specific Gravity (H <sub>2</sub> O = 1)	0.3-0.6
Vapor Pressure (mm Hg)	NA	Melting Point	NA
Vapor Density (AIR = 1)	NA	Evaporation Rate (Butyl Acetate = 1)	NA
Solubility in Water			
Appearance and Odor			
A grey board comprised of interlocking paper fibers, odor – none			

**Section IV—Fire and Explosion Hazard Data**

Flash Point (Method Used)	Flammable Limits	LEL	UEL
NA	NA	NA	NA

Extinguishing Media

Water: CO<sub>2</sub>, Sand

Special Fire Fighting Procedures

Self-contained breathing apparatus recommended.

Unusual Fire and Explosion Hazards

Depending on moisture content, and particle diameter, dust may explode. An airborne concentration of 40 grams of dust per cubic meter of air is often used as the LEL for Cellulose Dust.

**Section V—Reactivity Data**

Stability	Unstable		Conditions to Avoid
	Stable X		

Incompatibility (*Materials to Avoid*)

Avoid open flame. Product may ignite at temperatures in excess of 450 F.

Hazardous Decomposition or Byproducts

Thermal – Oxidation degradation produces irritating & toxic fumes and gases including CO and CO<sub>2</sub>

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur X		

**Section VI—Health Hazard Data**

Route(s) of Entry	Inhalation?	Skin?	Ingestion?
	Yes	No	No

Health Hazards (*Acute and Chronic*)

Dust can cause eye irritation and nasal dryness. Control dust per OSHA regulation 29 CFR 1910 for cellulose and particulates.

Carcinogenicity	NTP?	IARC Monographs?	OSHA Regulated?
NA	NA	NA	

Signs and Symptoms of Exposure

Eyes and Nasal Irritation, Rash.

Medical Conditions

Generally Aggravated by Exposure

Dust may cause eye irritation, nasal dryness & obstructions.

Emergency and First Aid Procedures

If in eyes – Treat as a foreign object; If rash or persistent irritation occurs get medical advice; If inhalation occurs remove to fresh air; If persistent coughing or difficult breathing occurs seek medical attention.

**Section VII—Precautions for Safe Handling and Use**

Steps to Be Taken in Case Material Is Released or Spilled

NA

Waste Disposal Method

Dispose in accordance with Local, County, State & Federal Regulations.

Precautions to Be Taken in Handling and Storing

No special handling precautions are required.

Other Precautions

See sections VI & VII in regards to dust.

**Section VIII—Control Measures**

Respiratory Protection (*Specify Type*)

Wear a respirator approved by NIOSH if dust conditions exceed OSHA Rules & Regulations.

Ventilation	Local Exhaust	Special
	Recommended for sanding, sawing & other machining.	NA
	Mechanical ( <i>General</i> )	Other
	Recommended at the source of any mechanical cutting.	NA

Protective Gloves

Eye Protection

Recommended for sanding, sawing and other machining.

Other Protective Clothing or Equipment

Work/Hygienic Practices

No special practices required. Follow normal work/hygienic practices.