



1900 Kanawha Boulevard East, Building 6,  
Charleston WV 25305  
Wvde.us

August 03, 2018

Patricia Lucas  
P.O. Box 477  
Logan, WV 25601-0477

Dear Ms. Lucas,

On August 2, 2018, a staff member of the Office of School Facilities, visited Logan County Schools to respond to an indoor air quality complaint at East Chapmanville Elementary School. The following are findings and recommendations from that visit.

**FINDING - 08-02-18-01**

**There are small areas of rust, dirt and mold on the window glazing surfaces of several single pane window sections in the classrooms. The window glazing is missing or damaged on several windows.**

**RECOMMENDATION**

Clean any discolored or dusty areas of the windows with a 10% bleach solution. Replace missing or damaged window glazing.

**ACTION TAKEN BY LCBOE: Windows re-glazed and cleaned with bleach solution as recommended**

**FINDING - 08-02-18-02**

**The HVAC system at this facility is not capable of providing the outside air ventilation required by current building codes.**

**RECOMMENDATION**

Open windows to aid in outdoor air exchanges in classrooms when students are present.

**ACTION TAKEN BY LCBOE: Windows will be opened when students are present as recommended.**

**FINDING - 08-02-18-03**

**The HVAC units at this site have dust accumulation on the evaporator coils and interior surfaces.**

**RECOMMENDATION**

Clean the air filters, coils and cabinets of the window air conditioners, roof top units and packaged terminal air conditioners.

**ACTION TAKEN BY LCBOE: All units have been cleaned as recommended.**

**FINDING - 08-02-18-04**

**Water infiltration on the exterior walls has caused efflorescence to form in several classrooms.**

**RECOMMENDATION**

Scrape the affected areas and repaint the walls.

**ACTION TAKEN BY LCBOE:** Areas will be scraped, cleaned and painted when building is vacant during evening hours as recommended. Estimated completion date 8/9/18

**FINDING - 08-02-18-05**

**The outside air intake dampers on the packaged terminal air conditioners are closed.**

**RECOMMENDATION**

Once the classrooms are occupied, open the outside air dampers on each of the PTAC units.

**ACTION TAKEN BY LCBOE:** Dampers will be manually opened when building is occupied on 8/13/18

**FINDING - 08-02-18-06**

**There are stained, damaged or missing ceiling tiles in several classrooms.**

**RECOMMENDATION**

Replace all stained, damaged or missing ceiling tiles throughout the site.

**ACTION TAKEN BY LCBOE:** Ceiling tiles have been replaced or cleaned as recommended.

**FINDING - 08-02-18-07**

**There are no exhaust fans in the student restrooms.**

**RECOMMENDATION**

Exhaust fans were not included as a part of the design of this facility. Open windows to provide air exchange in the restroom areas.

**ACTION TAKEN BY LCBOE:** Windows will be opened as recommended.

**FINDING - 08-02-18-08**

**There were several classrooms with elevated humidity levels due to excessively low room temperature set points.**

**RECOMMENDATION**

Maintain room temperature setpoints between 70°F and 74°F.

**ACTION TAKEN BY LCBOE:** Temperatures will be set between 70 – 74 degrees as recommended.

**FINDING - 08-02-18-09**

**There are several HVAC units that are inoperative.**

**RECOMMENDATION**

Repair or replace all inoperative HVAC units.

**ACTION TAKEN BY LCBOE:** Units not working have been replaced others have been cleaned as recommended.

**FINDING - 08-02-18-10**

**Water was present in the basement area of the facility due to a clogged storm drain.**

**RECOMMENDATION**

Clear the obstruction on the storm drain. Remove all stored materials and thoroughly clean the basement areas. Discard all porous materials stored in basement. All non-porous materials need to be cleaned with a 10% bleach solution before being reintroduced into a school environment.

**ACTION TAKEN BY LCBOE:** All materials have been removed from basement area. Basement area is dry.

**FINDING- 08-02-18-11**

**The supply fan and surrounding areas of the Columbus Furnace unit has excessive dust accumulation.**

**RECOMMENDATION**

Thoroughly clean the supply fan and surrounding area

**ACTION TAKEN BY LCBOE:** Area has been thoroughly cleaned as recommended.

**FINDING - 08-02-18-12**

**There is no carbon monoxide detector in the basement area.**

**RECOMMENDATION**

WVDE Policy 6200 requires carbon monoxide detectors in areas that produce combustion gases. Install a carbon monoxide detector in the basement area Per policy

**ACTION TAKEN BY LCBOE:** Carbon monoxide detector to be installed 8/9/18

**FINDING - 08-02-18-13**

**The damper actuator for the outside air dampers on the Columbus Furnace has been disconnected.**

**RECOMMENDATION**

Verify that the controls and outside air dampers on the Columbus Furnace are operable.

**ACTION TAKEN BY LCBOE:** Dampers will be operated manually when needed.

**FINDING - 08-02-18-14**

**There is a very strong urine odor in the restroom of the Annex 3 classroom.**

**RECOMMENDATION**

Thoroughly clean the restroom. Operate the exhaust fan in the restrooms when students are present. If the odor persists, replacement of the floor tile may be required.

**ACTION TAKEN BY LCBOE:** Area being cleaned today 8/9/18 – exhaust fans will be operated.

**FINDING- 08-02-18-15**

**The parapet flashing is missing on several areas of the 1984 classroom addition roof.**

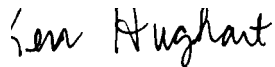
**RECOMMENDATION**

Replace all missing parapet flashing.

**ACTION TAKEN BY LCBOE:** All flashing has been replaced but (1) which is in the process of being made.

If I can be of any further assistance with this matter, please let me know.

Ken Hughart



WV Department of Education  
Office of School Facilities

**WVDE Data Sheet**

**Coun**      Logan

School      East Chapmanville      Contact      Mark Adkins      Area      27,500 Ft'

Technicians      KH      Date      8/2/2018      Phone#      (304) 792-2060      Year Built      1935, 1984

Location	CO <sub>2</sub> (ppm)	Temp (OF)	RH (%)	LEL (ppm)		Unit Type	Comments
Range	<1200	68-75	30-60%	<10			
Outside Air	472	80	71	0			
1	687	70	69	0		Window Unit	
2	784	67	54	0		Window Unit	
3	668	69	47	0		Window Unit	
5	727	69	68	0		Window Unit	
7	637	67	50	0		Window Unit	
8	610	69	63	0		Window Unit	
9	617	70	55	0		Window Unit	
21	601	73	55	0		Window Unit	
22	525	73	56	0		Window Unit	
23	505	72	55	0		Window Unit	
25	501	72	45	0		Window Unit	
27	660	73	47	0		Window Unit	
28	563	71	52	0		Window Unit	Inoperative window A/C unit
29	535	71	48	0		Window Unit	
1A	642	71	53	0		PTAC	OA vent closed
1B	621	68	55	0		PTAC	OA vent closed
2A	655	72	52	0		PTAC	
2B	603	71	51	0		PTAC	
Gymnasium	549	70	48	0		Window Unit	
Kitchen	550	70	57	0		Window Unit	
Modular 1	702	72	70	0		PTAC	
Modular 2	402	74	53	0		PTAC	

Modular 3	650	77	45	0			PTAC		
Office	790	68	63	0			Split U AC		

Logan - East Chapmanville Elem IAQ 08-02-18

8/3/2018