

## ***PREVENTION PROTOCOL***

# **Fire and Life Safety Guidelines for Schools<sup>1</sup>**

<b>Depending on Assistance Needed, Call:</b>	
DGS Environmental Health and Safety	202-576-8962
Fire & EMS Department	202-727-1600
DGS Maintenance Customer Service	202-576-7676
LEA Contact	
Other	

### **Situation Description**

Prevention is the key to eliminating the conditions that may contribute to the cause of any fire or loss of life. Apart from arson, major causes of school fires include improper handling and storage of flammable liquids, overloaded electrical outlets, and excessive cumulative combustible materials.

The Department of General Services (DGS) Facilities Division, Environmental Health and Safety in collaboration with the DC Fire Marshal's Office, has developed the following compilation to assist school administrators and personnel responsible for the daily maintenance of physical facilities in schools. It includes building features, maintenance, and operational requirements from the International Fire Code (IFC) and applicable National Fire Protection Association (NFPA) standards.

### **Maintenance of Means of Egress**

- Principals and teachers must inspect all exit facilities daily in order to make sure that all stairways, doors, and other exits are in proper condition. Exit discharge areas and outside steps must be kept clear of snow, ice, or debris accumulations that could impede egresses.
- Exit doors must be easily opened from the side of egresses. Only one locking or latching device is permitted on any exit door. Locking devices that require the use of a key, tool, or special knowledge to open from the egress side of the door are strictly prohibited.
- Exit doors must never be chained, locked, slide-bolted or barred against an egress when a building is occupied.

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<sup>1</sup> This Protocol contains information developed and implemented by District of Columbia Public Schools and can be used as a guideline for other District LEAs. Each LEA should review and edit the contents to conform to their procedures and contacts.

- Means of egress must be marked with illuminated signs except where locations of exits are otherwise obvious.
- Storage of any type is prohibited in a stairway. Clothing and personal effects must not be stored in hallways unless the building is protected by an automatic sprinkler system, the hallway is protected by a smoke detection system, or storage is in metal lockers. Combustible or flammable materials must not be placed, stored, or kept in any portion of an exit.
- Any fire door (e.g., stairwell door) that is designated to normally be kept closed (equipped with a self-closing mechanism) must not be blocked open. These doors may be equipped with a magnetic hold-open device if it releases the door automatically upon activation of smoke detectors, which are supervised by the building's fire alarm system.
- Mirrors must not be placed in or adjacent to an exit in a way that would confuse the direction of egress. Draperies and similar hangings must not obscure an exit.
- Vending machines, display boards, signs, coat racks, and any other movable equipment that obstructs the path of egress travel is prohibited. Exit access corridors shall be not less than six feet clear width.
- Any penetrations through fire separation walls, ceilings, or floors must be sealed with an appropriate sealing compound or device. Ordinary caulking or duct seal are not acceptable for this purpose.

### **Decorations and Artwork**

- Student-prepared artwork and teaching materials may be attached directly to the walls and must not exceed 20 percent of wall areas.
- Draperies, curtains, and similar furnishings and decorations must be flame resistant and certified as passing the flame resistance testing of NFPA 701 and must not exceed 10 percent of wall and ceiling area.
- Display of live or fresh-cut trees, even during the holiday season, is prohibited in all educational buildings. Noncombustible artificial trees may be displayed in locations that will not interfere with egress.

### **General Housekeeping**

- Only items associated with operations of the boiler room and/or mechanical rooms should be stored in these areas. No combustible materials are to be stored in these areas.
- Storage areas and supply rooms must be kept neat and orderly. Empty cartons, old decorations, and other items should not be allowed to accumulate. Storage of these materials must be separated from heat sources. Note: Pallets are not required for storage of combustible materials/boxes or for keeping them "off of the floor."
- Maintain storage height to 24 inches or more below the ceiling in non-sprinklered buildings, or a minimum of 18 inches below sprinkler head deflectors in sprinklered areas of the building.

- All materials subject to slow oxidation (e.g., paint rags, wax rags, oil mops, etc.) should be stored in approved, closed metal containers until they can be either laundered or disposed of properly.

### **Storage of Flammable Materials**

- Volatile and flammable liquids (duplicating fluids, paints, paint thinners, oils, wax, gasoline, etc.) must be stored in approved containers. Use of these materials is prohibited in areas where there are open flames, electrical sparks, and running motors. Bulk storage of such materials must be in specified flammable-liquid storage rooms only. In the absence of such a special room, they must be stored in outside areas such as tractor storage rooms.
- Refer to the Classroom HAZMAT Storage Checklist to be utilized in schools that is available for download at the ESA website: <http://esa.dc.gov>

### **Storage of Fuel Powered Lawn Equipment**

- Gasoline and diesel fuel powered lawn and garden equipment (including snow-blowers) are to be stored in an appropriate detached (outside) equipment storage building.
  - Primary Alternative: Only, in the event outside storage facilities are not available on the school grounds a room in the school building that is designed with at least a 1-hour fire resistant rating and/or is protected by an automatic fire suppression system that has an access door leading directly to the outside without an entrance door into the building (these rooms are often referred to as “can” or “can washing” rooms and are usually located near the loading dock) can be used to store gasoline and diesel fuel powered lawn and garden equipment.
  - Secondary Alternative: Only if the previous two features do not exist in or on school property then a room with a self-closing, ¾-hour fire rated door leading into the school from a room that has at least a 1-hour fire resistant rating and that is protected by an automatic fire suppression system could be used to store gasoline and diesel fuel powered lawn and garden equipment. The interior door must display a sign to indicate “Equipment Storage” and remain locked to prevent unauthorized access.
- Fuel Storage: In any of the storage solutions described above, fuel is to be stored in an approved 5 gallon (max size) metal safety can (flammable liquids). Fuel inside the lawn equipments fuel tank should not be drained and is not to be included in this total.
  - Permit Required Fuel Storage: In the event that additional fuel storage is necessary (beyond 30 days) an operational permit is required to be obtained from the DC Fire Marshal’s Office by the school administration. The cost of a yearly permit is \$150.00. *Note: Even with a permit, gasoline in excess of 5 gallons must be stored in an approved flammable storage cabinet and cannot exceed 60 gallons.*
- Fueling Equipment: The filling or removal of fuel in gas tanks (storage or equipment) inside school buildings is strictly prohibited. All fueling operations are to be conducted outside of the building, in open air. Report any fuel spills immediately.

- Security: In any of the storage solutions described above, doors are to remain locked to prevent unauthorized access. The school emergency response plan must specify the location of the fuel and equipment storage.

### **Fire Extinguishers**

- All portable fire extinguishers must be checked monthly for obvious damage, broken seals, and to ensure that the gauge is in the operable range or, if not equipped with a gauge, for the proper weight. School-based personnel are responsible for monthly inspection of fire extinguishers.
- Pressurized water extinguishers (or any other extinguisher that carries a 2-A rating) in hallways must be placed so that the travel distance to reach extinguisher is no more than 75 feet (distance between extinguishers cannot exceed 150 feet). All laboratories, shops, mechanical and boiler rooms, and other areas containing special hazards must have an extinguisher(s) rated for use with A, B, and C-type hazards. Portable fire extinguishers must be installed in all kitchens and must be compatible with the automatic suppression system agent used in the hood suppression system.
- A thorough inspection by trained personnel, following maintenance procedures in NFPA 10, the Standard for Portable Fire Extinguishers, is required annually.

### **Location of Classrooms**

- Rooms normally occupied by preschool, kindergarten, or first-grade pupils must not be located above or below the story of exit discharge. The story of exit discharge is that floor or stories of the building from which exits are primarily doors discharging directly outside, essentially at grade level. Where no such floor exists, the story of exit discharge must be that with the smallest elevation change needed to reach the level of exit discharge.
- Rooms normally occupied by second-grade pupils must not be more than one floor above the story of exit discharge.

### **Emergency Lights**

- All emergency lighting systems must be tested for proper operation for a minimum of 30 seconds every month. School-based personnel are responsible for the monthly inspection of emergency lights.
- On an annual basis, a test must be conducted for 1 1/2-hour duration. Equipment must function properly during the test.
- Written records of all tests must be maintained for review by the Fire Marshal.

### **Areas of Assembly (auditoriums, gymnasiums, multipurpose rooms)**

- All assembly rooms must post a sign displaying the maximum capacity as determined by the Department of Regulatory Affairs.
- When utilizing areas of assembly during school hours or for any other purpose, the maximum capacity may not be exceeded.

- When arranging folding seats or chairs for programs, exit aisles must be maintained. Aisles must not be less than 36 inches wide where serving seats on one side only, and not less than 42 inches wide where serving seats on both sides. The space between parallel rows of seats must not constitute an aisle. Not more than six seats shall intervene between any seat and an aisle (12 seats per parallel row). All aisle spaces must remain unobstructed.

### **Electrical Equipment and Wiring**

- Do not block electrical panels. Maintain at least 3 feet of clear space in front of the width of all electrical panels.
- Cords and plugs on electrical equipment as well as extension cords must be visually inspected before each use. This required inspection should include an examination for external damage and defects (such as missing or deformed prongs, loose parts, or damaged outer jacket or insulation) as well as evidence of possible internal damage (such as a pinched or crushed outer jacket).
- Never overload an electrical outlet. Never interconnect or daisy-chain power strips. Use surge protectors only with electronic computer equipment and equipment that requires such protection.
- Use only UL-approved grounded, three-prong plug heavy duty extension cords. Extension cords should never be used in lieu of permanent wiring and can only be used for portable equipment.
- Keep wiring away from doorways and windows. Never run wiring or extension cords under carpeting, above ceilings, or through walls.

### **Fire Drills**

- At least two fire drills must be conducted during the first two weeks of the school year, and one a month thereafter.. When weather is severe during the winter months, at least six drills must be held at the beginning of the school year and four drills after the winter months to complete the required drills.
- Evaluate the effectiveness and operation of the fire alarm system (You may refer to the Fire Alarm Evaluations in the Prevention Protocols, Section 6, of the School Emergency Response Plan and Management Guide for additional information.)
- Announce the first fire drill of the school year in advance so that instructions can be given and procedures established. Procedures, not time, should be most important for the first drill.
- At least one fire drill in the fall and one in the spring should be conducted for adult education programs.
- At least one fire drill during the first week of any summer school program, or any special programmed activity (e.g. summer recreation program) must be conducted.
- Fire drills should be conducted under a variety of conditions: different times of school day, during lunch periods, during class changes, during assemblies, etc., to avoid distinction between drills and actual fires.

- Drills should be conducted with a primary exit route blocked to test use of secondary exit routes.
- For DCPS or any schools with fire alarm monitoring, each time a fire drill is conducted, security/monitor must be contacted to alert personnel monitoring all school fire alarm systems that a building evacuation drill is being conducted (not an actual emergency situation). Once the drill has been completed, a follow-up call should be placed to security/monitor to verify that the building's alarm signal was received by monitoring personnel.
- A record of each fire drill must be maintained at each school and office for review by the fire marshal. These reports must include the following:
  - Time and date the drill was conducted;
  - Weather conditions at the time of evacuation;
  - Number of occupants evacuated;
  - Total time of evacuation; and
  - Other information relevant to the drill.
- DC Public Schools specific requirements:
  - Number of mobility impaired persons present during drill;
  - Number of mobility impaired persons assisted out of the building;
  - Areas of refuge or staging areas used for the mobility impaired;
  - Fire alarm system operational; and
  - Log drill into the ESA Application (<http://esa.dc.gov>).
- Utilize the School Emergency Procedures Flipchart following the Evacuation procedures for buildings during all fire drills. Refer to your school's Emergency Response Plan for specific information.
- Note any fire alarm deficiencies discovered during the drill and call for emergency repairs.
- Fire alarms in schools do not notify Emergency Responders. This must be done with a call to 911 either directly or through an alarm monitoring service.

### **Fire Watch**

- If the fire alarm system is inoperable, the authority having jurisdiction (AHJ) requires that a fire watch be implemented until service is restored.
- Fire watch forms are available on the ESA website.

### **Fire Emergency**

- If a fire is discovered, the fire alarm must immediately be activated and the building evacuated without delay. After evacuation has been initiated, personnel trained in fire extinguisher operation may attempt to suppress the fire if, in their judgment, this can be

accomplished without risk of injury. Evacuation should never be delayed to attempt fire suppression.

- Once the building has been evacuated, no one must be allowed to reenter the school until firefighting units have arrived and they completely search the building. All students and personnel must remain at the evacuation staging area until the fire incident commander declares the building safe to enter.
- If school personnel suspect a fire, or determine that an actual fire exists, they must immediately activate the fire alarm evacuation signal and call the fire department at 911. All fires, regardless of magnitude, must be reported to the fire department. This is strictly enforced by the fire marshal.
- Refer to your school's Emergency Response Plan for specific information.

### **Fire Inspections**

- During inspections by the FEMS Fire Inspector, the principal/designee must accompany the fire official during the entire facility assessment. Other officials having a role during the inspection process include building maintenance staff, facility manager, safety officer, etc.
- At the conclusion of the inspection, obtain a copy of the field report prepared by the Fire Inspector and retain this for school records.

This collection does not cover all aspects of the Fire Code; for situations that are not fully addressed, or if further clarification is required, please contact the DGS Environmental Health and Safety at (202) 576-8962 or the DC Fire Marshal's Office at (202) 727-1600.