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TO: District Superintendents
SISC II Member Districts

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SUBJECT: Fire Prevention/Mitigation

In the past few years, damage to SISC II member sites due to fire has risen dramatically. Although SISC II covers the loss of a building due to fire, the emotional loss and the inconvenience of losing a building can be devastating to the entire school community. Working in partnership with the County Fire Department and the Chubb Group of Insurance Companies, the SISC Safety and Loss Control department has developed the following information for your use in protecting your buildings from fire:

I. Decorative and Display Materials

Title 19, California Code of Regulations requires that decorative materials such as curtains, drapes, hangings, Christmas trees, or any other combustible decorative material shall be flame retardant and no such material shall block or conceal any exit door, exit lights, fire alarm, or fire extinguishers.

Flame retardant materials may be either constructed of a nonflammable material or may be treated with a flame-retardant solution. All treated materials shall have proof of treatment affixed to it in accordance with regulations of the State Fire Marshal.

School administrators (and teaching staff) should be mindful of introducing flammable materials into the classroom. Appropriate documentation of fire retardancy should be maintained

Classroom displays provide important visual learning opportunities in classrooms and also make the classroom environment more enjoyable. However, display materials can also provide increased flame spread, fire loading, and evacuation barriers. Fire regulations provide that non-flame retardant materials (such as paper displays) may be used so long as no more than twenty-five percent (25%) of the wall surface is covered with such materials. Display materials must also be located four (4) feet from room exits and corners and nothing can be located overhead or hang from the ceiling.

II. **Electrical Extension Cords and Adapters**

The use of extension cords in classrooms and offices is common and can be safe if used properly. However, extension cords can pose a significant fire risk if the fire codes/regulations are not followed.

Single outlet extension cords are designed to power only one (1) appliance or fixture. They must not be longer than eight (8) feet and no smaller than 16-gauge wire. Extension cords that are less than 16-gauge wire can become overheated more easily and be the source of a fire.

Multiple outlet adapters are designed to serve more than one appliance or fixture and must be grounded, have an on/off switch, and have a breaker or fuse.

Requirements for extension cord use, both single and multiple outlets, include the following:

1. The current capacity must not be less than the rated capacity of the appliance or fixture.
2. Cords must be maintained and in good working condition.
3. Cords must be the grounded type when servicing grounded appliances or fixtures.
4. Cords must be used only with a portable appliance or fixture while in immediate use. Extension cords may not be used as a source for permanent wiring.
5. Cords must be plugged directly into an approved receptacle.
6. Cords must not be affixed to structures; extended through walls, ceiling, floors, under doors, or under floor coverings; or be subject to environmental damage or physical impact. Extension cords that cross a pedestrian traffic area must be covered with a traffic pad.
7. Cords must not be run in a series (cords plugged together).

III. **Fire Extinguishers**

There is no doubt that fire extinguishers can be a valuable defensive tool to prevent fire spread or control a small fire at its source. However, fire extinguishers require maintenance and employee training to ensure effectiveness. The basic requirements regarding fire extinguishers include the following:

1. The minimum size extinguisher for a classroom or office is 2:A - 10:BC. Larger extinguishers may be necessary in areas of special risk such as maintenance, transportation, print shops, chemistry classrooms, etc.
2. Extinguishers are required to be checked monthly and serviced annually.
3. There shall be no more than 75 feet of travel distance to an extinguisher with at least one (1) extinguisher for every 3,000 square feet.
4. Employees must be trained in the use of extinguishers.
5. Extinguishers shall be mounted as follows:
 - » Less than 40 lbs mounted no higher than five (5) feet from the ground.
 - » More than 40 lbs mounted no higher than 3.5 feet from the ground.
6. Extinguishers must be recharged after each use.

IV **Fire Sprinklers**

Fire sprinklers can be the most effective means of preventing loss from fire. Current regulations specify the maintenance and service requirements of such systems. Maintenance inspections must be performed at least quarterly. A license is not required to perform maintenance inspections; however, only licensed personnel shall service fire sprinkler systems. Automatic fire sprinkler systems must be serviced every five (5) years. It is important to note that the primary cause of fire sprinkler failure is lack of or inadequate maintenance.

In addition to the above inspection/service requirements, districts should also consider the following:

1. All sprinkler system water flow alarms should be connected offsite to a 24-hour manned central station.
2. All sprinkler system control valves and back flow preventers should be locked open with a substantial chain and breakaway lock and equipped with a monitor connected offsite to a 24-hour manned central station.
3. All smoke and heat detection systems are required to be inspected semi-annually and tested annually.

V. **Alarm/Detection Devices**

The purpose of an alarm/detection device is to summon the response team, alert building occupants that an abnormal condition exists, and to prevent or reduce loss via early notification.

All classrooms, offices, maintenance areas, transportation areas, multi-use facilities, gymnasiums, or any other building that has a potential for fire loss should be equipped with an alarm/detection device. Several SISC II member districts have recently sustained severe fire losses that could have been significantly mitigated with the existence of an alarm/detection system.

Such systems should be equipped with a central station alarm (monitored by a third party) and should be tested regularly.

Burglar/intrusion alarms can also be effective in detecting fire conditions if the system is sound activated or if the alarm is triggered by a burnt wire or melted device. Because arson is the leading cause of school fires, intrusion alarms are essential in detecting intruders before a fire is set or before the damage becomes significant.

There are many types of systems and detection devices that have specific applications. It is important to consult with an individual experienced in such devices/systems.

VI. **Arson**

Arson is the leading cause of dollar loss from fire, particularly in schools. Districts with vandalism problems are at greater risk for arson, although no district is immune. Therefore, it is important for administration and facility managers to be mindful of strategies to reduce arson potential.

1. Install perimeter flood lights outside school buildings. Use motion activated lighting near doors and windows.
2. Trim shrubs and vegetation to the ground and away from buildings. Low vegetation removes hiding places for criminals and reduces easy access to buildings.
3. Burglar/intrusion alarms should be installed on all buildings of value.
4. Practice good key control practices to prevent unauthorized entry to facilities.
5. All fires, no matter how small, should be carefully investigated and the fire department called.
6. Combustible materials inside and outside buildings should be kept to a minimum.

Any fire loss can be devastating and the cost of recovery can be many times more than the cost of prevention or detection systems.

Please contact your SISC Safety and Loss Control representative to obtain specific code citations, copies of regulatory language, or for more assistance. Thanks to the Self Insurance Program for Employees (SIPE) for contributing the information regarding arson.