

At Issue

A RISK MANAGEMENT NEWSLETTER FOR
ELEMENTARY AND SECONDARY SCHOOLS



Electrical Equipment Exposures in K-12 Schools

By: **Ernest Freeman**, Vice President of Engineering, Hartford Steam Boiler Loss Control Engineering Group

An equipment breakdown will cost a school district almost \$18,000 on average. But a typical electrical equipment breakdown will cost a school district more than \$30,000.

Insuring, inspecting and studying equipment for over 150 years, and accumulating data on equipment failures for almost as long, we've learned a lot about what equipment fails and why.

The most common types of equipment to fail in schools are:

- Electrical cables
- Breakers
- Panels

Our schools use electricity for lighting, heating, cooling and refrigeration — and for operating appliances, computers, electronics and machinery. The electrical distribution system is the most critical system because without it the facility can't function.

WHAT ARE THE PRIMARY CAUSES OF ELECTRICAL EQUIPMENT FAILURES?

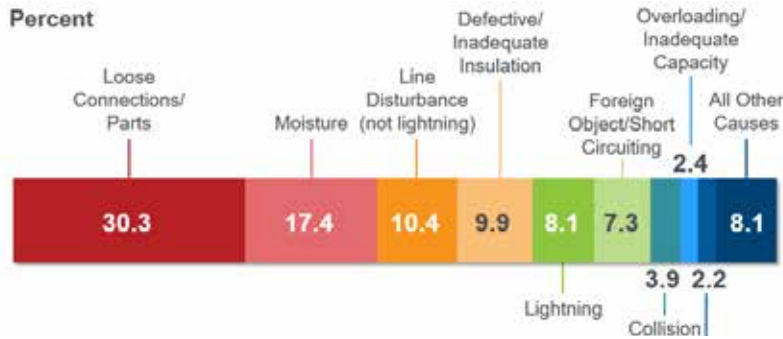
The main causes that we find for electrical equipment failures are:

- Loose connections or parts
- Moisture
- Power line disturbance
- Defective or inadequate insulation
- Lightning
- Foreign objects or short circuits
- Collision
- Overloading or inadequate power capacity
- Accumulation of dust, dirt or oil

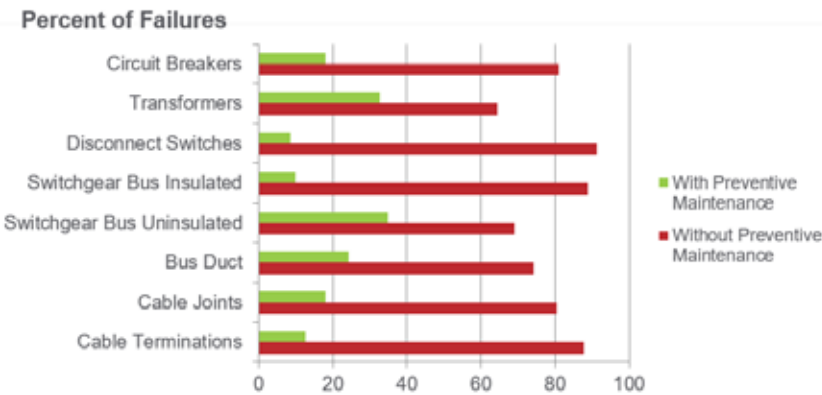
IN THIS ISSUE

P.1	Electrical Equipment Exposures
P.3	Employee Dishonesty Risk
P.5	Retaining Armed Security Firms
P.5	Event Planning
P.7	Winter Maintenance Tips
P.8	News & Views

Below, you can see what percentage of total failures result from each cause.



Now let's look at the potential impact Electrical Preventive Maintenance (EPM) can have on critical electrical equipment when properly implemented. This is a comparison of the percent of failures for equipment that had preventive maintenance versus equipment that did not.

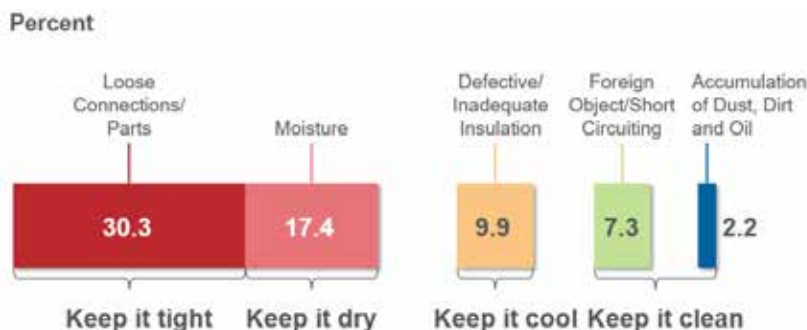


The chart clearly illustrates the impact that maintenance can have in reducing failures. Here are four basic maintenance objectives that are super easy to remember. If they are applied, they can help to greatly reduce a school facility's electrical equipment exposure.

1. Keep it clean.
2. Keep it cool.
3. Keep it dry.
4. Keep it tight.

WHY IS IT SO IMPORTANT TO KEEP EQUIPMENT CLEAN, COOL, DRY AND TIGHT?

Preventive maintenance is powerful. Simply keeping equipment clean, cool, dry and tight helps address over two-thirds of all causes of electrical failures.



HERE'S AN EASY CHECKLIST FOR APPLYING THESE MAINTENANCE OBJECTIVES:

Keeping it cool

- Keep electrical equipment and rooms free of excessive dust and dirt.
- Don't use electrical equipment rooms for storage.
- Limit access to authorized operations and maintenance personnel.
- Maintain proper lighting to ensure correct and efficient operation and maintenance.

Keeping it cool

- Prevent excessive heat buildup in electrical apparatus enclosures and equipment rooms.
- Maintain cooling fans or blowers installed on equipment.
- Keep ventilation openings in equipment enclosures clean and free from blockage.
- Change or clean any filters according to the manufacturer's recommendations.

Keeping it dry

- Keep equipment rooms dry and protect equipment from moisture.
- Check equipment for moisture contamination. If found, examine for damage and get necessary repairs. Identify and eliminate the source of moisture.

Keeping it tight

- Check all connections periodically and ensure they are tight.
- Follow any applicable manufacturer's instructions for tightening.
- Get an infrared imaging survey to test for loose connections.

For more information on Electrical Preventive Maintenance and other techniques for reducing equipment losses, [check out our loss prevention tip sheets.](#)

Ernest Freeman is Vice President of Engineering in Hartford Steam Boiler's Loss Control Engineering Group, with over 39 years of experience in equipment operation and maintenance. He is a Certified School Risk Manager (CSRM), member of The Association of Energy Engineers (AEE), Certified Energy Auditor (CEA) and a licensed commissioned Inspector by The National Board of Boiler and Pressure Vessel Inspectors.

This article is reprinted with permission from The Hartford Steam Boiler Inspection and Insurance Co.

© 2017 The Hartford Steam Boiler Inspection and Insurance Company. All rights reserved. This article is for informational purposes only and does not modify or invalidate any of the provisions, exclusions, terms or conditions of the applicable policy and endorsements. For specific terms and conditions, please refer to the applicable coverage form.



Employee Dishonesty – A Financial and Reputation Risk Issue

The Association of Certified Fraud Examiners' (ACFE) 2016 Report to the Nations on Occupational Fraud and Abuse provides interesting and useful information concerning employee fraud, including information specific to the education field.

- The average fraud case in education is \$62,000, less than the mean loss of \$150,000 but still substantial, especially for small private or charter schools or institutions that are struggling financially.
- According to the Report, billing and corruption schemes account for nearly two-thirds of all schemes in the education field. However, skimming (defined as a scheme where an incoming payment is stolen before it is recorded on the books) was more common in the education field than any other industry, representing 25% of all reported schemes.
- Fraudsters were mostly male first-time offenders. Employees between 36 and 40 years of age committed the most crimes. Employees over 60 perpetrated the largest losses. While most crimes were committed by a single employee, the largest losses involved collusion between two or more people.



The report also lists red flag behavior exhibited by perpetrators. While this type of behavior does not mean a person is committing fraud, the ACFE identified these behaviors as common behaviors among fraudsters in its study.

The six most common behavioral red flags were: (1) living beyond means; (2) financial difficulties; (3) unusually close association with a vendor or customer; (4) a general “wheeler-dealer” attitude involving shrewd or unscrupulous behavior; (5) excessive control issues or unwillingness to share duties; and (6) recent divorce or family problems. Approximately 79% of the perpetrators in the study displayed at least one of these six red flags during their schemes. Living beyond means was a red flag in more cases than any other indicator, regardless of whether the perpetrator was an employee or manager.¹

In 2016, initial detection was by a tip, internal audit or management review. This is true whether the perpetrator was an employee or a manager.

RISK ASSESSMENT

Risk assessments help an organization identify hazards or exposures that increase the likelihood of a loss, in this case, fraud or employee theft. Perils that increase the likelihood of loss that can exist in an organization are:

Opportunity	Cash and certain types of equipment (e.g., supplies, IT devices, TVs) are fungible and can be easily sold or spent.
New Operations, Systems or Activities	New processes, procedures, new systems and IT upgrades are frequently implemented to fulfill a need or requirement. This is also true for new mandates or regulations. Internal controls often come after the process is established and implemented.
Complexity	Complex tasks increase the probability of an error.
Changes in Personnel	Inexperienced staff reduces the efficiency of internal controls.
New Leadership	In many cases, new leadership means new and different ways of accomplishing tasks. Compliance may mean less attention to policies and internal controls.

INTERNAL CONTROLS

Internal controls are actions, procedures and policies that reduce the possibility of fraud and make it easy for employees to report schemes that they are aware of in the workplace. While there are basic controls that apply to most entities, we strongly recommend following the advice of your institution’s auditors, CFO or fraud manager. Basic controls include:

- **Hiring and Interviewing**
Is there a code of ethics? Are background checks done and references verified? Is there a probationary period for all new employees that allows for the dismissal of employees who are exhibiting problematic behavior? When warranted (especially for applicants who will operate machinery or motor vehicles), are drug tests required?
 - **Expense Accounts and Payroll**
Are employee expense accounts reviewed and approved by the employee’s manager? Is there a policy for receipt verification? Are there periodic reviews done in the auditing process? Do time cards justify payroll?
 - **Separation of Duties**
This is true in all accounting areas, but particularly important for check processing, printing and approval — and payroll approval.
 - **Inventory**
Educational institutions have supplies and equipment that are fungible and have uses outside of the school. Paint, cleaning equipment, pesticides, tools, building supplies and food are some examples.
- Other components of internal control involve policies and practices:
- Audit reports are reviewed by the Board of Education.
 - There is mandatory anti-fraud training.
 - An easy method to report suspected fraud (“tip line”) is in place.
 - An honest and ethical environment is supported with senior management setting the example.
 - Employee assistance programs are available for employees struggling with addiction issues.
 - The Chief Information Officer is monitoring IT software and systems to ensure robust controls to prohibit/reduce fraud perpetrated through IT systems or devices.



¹ The 2016 Report to the Nations on Occupational Fraud and Abuse can be found at <http://www.acfe.com/rtn2016/schemes/occupational.aspx>

Retaining An Armed Security Firm

One solution that K-12 schools are considering in wake of the tragic school shooting in Parkland, Florida is to retain armed security guards from a security contractor. Using armed security may add a level of protection and be a deterrent for people planning armed attacks. However, having armed security on premises increases the overall liability exposure to the institution. Generally, a school district has a duty to provide a safe environment for students, visitors, staff and others. Improperly vetting, selecting and managing a security firm can create liability for the school if there is an incident where the firm acts negligently and causes bodily injury or property damage.

We recommend working closely with school counsel and your insurance representative if an armed firm is being retained. Besides requiring proof of the necessary credentials (such as licenses and/or certifications) and background checks on the individual guards performing the service, contracts should include favorable indemnification language and risk transfer language, requiring the contractor to maintain certain coverages and limits, **and list the district as an additional insured.**

Required coverages typically include:

Commercial General Liability Insurance

\$1,000,000 per occurrence / \$2,000,000 general and products / completed operations aggregates.

Errors and Omissions Insurance

\$2,000,000 per occurrence and aggregate with coverage for defamation, assault and battery, invasion of privacy, false arrest, and detention



and imprisonment. If written on a claims-made basis, the retroactive date must precede the date of the contract or the inception of services, whichever is earlier.

Automobile Liability

\$1,000,000 combined single limit for owned, hired and borrowed and non-owned motor vehicles.

Excess Liability Insurance

On a follow-form basis over the liability coverages listed above.

Workers Compensation

Statutory limits and coverages.

Consult with your insurance representation to ensure compliance with the insurance laws and practices in your state.

Event Planning

By: **Scott Wells**, ALCM, CPP, Senior Risk Control Specialist – Western Region, Wright Specialty Insurance

Spring and summer activities at schools present challenges for administrators that require preplanning and the careful execution of an adopted plan. Some examples of activities include: athletics (especially tournaments and rivalry competitions); prom; theater productions; graduation; concerts; fundraisers and summer camps. Start the planning process early in order to allow for the time necessary to develop your planning and operations teams. The purpose of this article is to assist administrators by providing information on the salient components of a good plan.

PLANNING PROCESS

The planning process begins with the identification of the event (prom, graduation, etc.), the designation of an Incident Commander (IC), and a review of potential liability exposures. A senior level school employee should be named as the IC — the person who is responsible for the overall management of the event. Potential liability exposures include: public accommodations (restrooms, parking spaces, facility access, etc.); injuries to attendees/participants; disruptive behavior; alcohol-related incidents; and vandalism.



PLANNING AND OPERATIONS TEAMS

The IC, in collaboration with other school officials, will select a planning team. The composition of the team can vary by activity, and is usually comprised of an employee from the following school departments/functions: administration; finance/business; IT; maintenance; athletics; student life; and security. Depending on the activity, the school may want to consider inviting outside partners, such as local law enforcement, to help with planning. The planning team is primarily responsible for: identifying and acquiring/allocating the necessary resources to carry out the activity/event; advertising the event; and adjusting the plan as required.

The operations team is responsible for executing the plan — under the supervision of the IC. The operations team is comprised of some or all of the planning team members, along with medical personnel and general staff employees.

PLAN COMPONENTS

PERSONNEL

Select event staff who know your school facilities and operations well. This typically includes: key administrators; maintenance; medical staff — nurses and athletic trainers; IT; security and law enforcement. Event staff should have good observation and communication skills, and should know the school's Emergency Management Plan (EMP) well.

COMMUNICATIONS

Communications, both written and verbal, are perhaps the most critical component of a solid plan. Two-way portable radios are a best practice during events. Batteries should be fully charged before the event begins, and radios should have multichannel capability. There should be enough spare batteries for at least half the radios, and they should be fully charged as well. If the school has a security function, utilize that expertise, as they have everyday experience in radio usage. On event day, the IC (or designee) is responsible for a personnel roll call at least twice hourly. This is especially important for staff that are mobile during the event.

In addition to a portable radio, each operations member should have a cell phone (with a fully charged battery) available. Cell phones are a redundancy feature in the event of radio failure.

Written communications include e-mails, school website and social media posts. The school website and social media can be helpful in getting the word out on event changes such as weather delays and traffic delays.

EMERGENCY PLANNING

Existing emergency plans can be used, augmented by event specific plans. Examples of specific plans are locations of first aid stations for outdoor events; an information center that is



centrally located (outside events); and a lost and found location. Depending on the event, it might be prudent to have an ambulance on standby on school grounds. Consideration should be given to inviting law enforcement, fire and EMS personnel to be in attendance during the event.

SECURITY

Two to four security officers are often recommended for crowds of 10 to 50 people. Utilize school security staff first, as they know the property. Local law enforcement can supplement school security officers.

The IC should assign an operations team member to monitor camera images during the event — this should be their only responsibility.

TRANSPORTATION

For outdoor events, utilize golf carts and similar vehicles for quick access to the grounds and buildings. Schools that have security departments often use bicycles.

OTHER

If contracted services are used during events, ensure that the contractor demonstrates adequate liability coverages and provides a Certificate of Insurance (COI) listing the school as an additional insured.

Schools should have policies that address prohibited items and behaviors. Schools should also have policies that address alcohol consumption.

Facilities should always be inspected before use.

Winter Maintenance Tips

By: **Scott Wells**, ALCM, CPP, Senior Risk Control Specialist – Western Region, Wright Specialty Insurance

Winter may be drawing to an end in some parts of the country, but it is still in full force in other areas. Regardless of where you live, it is always a good time to perform maintenance on your cold weather and snow removal equipment and supplies. Some simple tips are listed below.

SNOW BLOWER/THROWER

- Change the spark plug. This is an inexpensive way to keep the engine running properly.
- Inspect the belts for wear. Replace those that are worn or frayed.
- Check the auger paddles for wear and tear — they should touch the ground.
- Check the shave plate.
- The skid shoes will wear out. Flip them or replace them as necessary.
- Change the engine oil. This will extend the life of the engine.
- Check the shear pins. They can and do break. Keep several spares on hand.
- Always use fresh gas and add fuel stabilizer.
- Check the tire pressure. This is sometimes overlooked. Proper tire pressure is important to machine operation.

Many of the above tips are predicated on hours of use. Even late winter is a good time to perform maintenance — there is no down side to the above tips.

ATVS WITH SNOW PLOW BLADES

Much of the maintenance you perform on your Snow Blower/Thrower applies to your ATV.

- Check the cutting edges that attach to the bottom of the plow blades. They will wear with use. Keep a spare available.
- Change the engine oil and use fresh gas with a fuel stabilizer.
- Check the tire pressure often.
- Make sure the winch cables are not worn or frayed. They see a lot of work when raising and lowering the plow blade.

ICE MELT

Consider using ice melt for the areas of your property where snow and ice don't melt readily — usually the north side of buildings that don't get as much sun.



News&Views

Motor Vehicle Deaths Decreasing.

The National Safety Council indicates that motor vehicle deaths dropped slightly — 1% in 2017. <http://www.nsc.org/learn/NSC-Initiatives/Pages/Fatality-Estimates.aspx>



Will the EEOC shift to a more pro-business stance?

EEOC likely to exercise restraint on litigation.

Business Insurance – December 2017



2017 Sets a New Record for Cumulative Damage from Weather and Climate Disasters

During 2017, the U.S. experienced a historic year of weather and climate disasters. In total, the U.S. was impacted by 16 separate billion-dollar disaster events tying 2011 for the record number of billion-dollar disasters for an entire calendar year. The cumulative cost of these events exceeded \$300 billion.

NOAA – National Center for Environmental Information

<https://www.ncdc.noaa.gov/billions/>



Flu Season Winding Down?

Maybe, says the Centers for Disease Control and Prevention (CDC). But a second wave of flu can hit in late winter and early spring.

CDC, Friday, February 23, 2018

ResourceCenter

Training or information about today's risk management-related subjects can be found in the Wright Specialty E-Learning or Title IX Learning Centers online.

Wright Specialty is host to a number of online risk management resources. Take advantage of the free safety education courses available on Wright's 24/7 web-based training center. Visit our Title IX Resource Center to keep up with changing developments or browse our seasonal Risk Alerts to stay up-to-date on school-based risk management and safety issues. With years of experience insuring school risks, Wright Specialty Insurance provides valuable guidance for school administrators to help reduce injuries to students, staff and visitors, and to prevent damage to property. You can access our national Employment Liability Hotline for help with every day employment-related issues. The Hotline is available Monday - Friday from 8:30 a.m. to 6:00 p.m. eastern time. Call 866-758-6874.

For easy registration at our e-Training Center and for access to the Resource Center, contact Amy Kielb to receive your access code at: 516-750-9457 or akielb@wrightinsurance.com



The Right Partnership for You.®

333 Earle Ovington Blvd., Suite 505, Uniondale, NY 11553-3624
Toll Free: 1.877.976.2111 | Phone: 516.750.3903 | Fax: 516.227.2352

www.wrightspecialty.com

Wright Specialty Insurance is a member of The Wright Insurance Group™
© Copyright 2018 The Wright Insurance Group, LLC. All Rights Reserved.

Wright Specialty Insurance provides general information and material through this document to educational institutions throughout the United States. The information contained in At Issue is not intended as a substitute for professional consultation or legal advice with respect to any issue identified or discussed. Wright Specialty Insurance makes no representations about the suitability of this information and material for any purpose other than discussion and disclaims any liability for damages of any kind arising out of the use of the information provided. Consult with your insurance representative, risk manager and legal counsel if you have legal, procedural or safety-related questions.