



## How Web-based 'Learning Management Systems' (LMS) can provide required education and training for healthcare facility personnel

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Fact: Time and budget constraints now limit the amount, and quality, of training available to healthcare personnel. No longer can a hospital afford to send staff off campus....the cost of travel sometimes exceeds the cost of the training course. 'Web-based training' offers an alternative which is more practical and less expensive. But, no matter what method you choose, the Joint Commission's HR standards require continuing education.

### Continuing education and training is required by the following:

#### Joint Commission Standards

These Joint Commission standards taking affect on Jan 1, 2009 address the continuing education requirement:

- **HR.01.04.01 – EP1:** The hospital determines the key safety content of orientation provided to staff. Note: Key safety content may include specific processes and procedures related to the provision of care, the environment of care, and infection control.
- **HR.01.05.03 – EP1:** Staff participate in ongoing education and training to maintain or increase their competency. Staff participation is documented.
- **HR.01.06.01 – EP2:** The hospital uses assessment methods to determine the individual's competence in the skills being assessed. Note: Methods may include test taking, return demonstration, or the use of simulation.
- **EC.03.01.01 -** Staff and licensed independent practitioners are familiar with their roles and responsibilities relative to the environment of care.

**Rationale for EC.03.01.01 -** People are the key to successfully managing risks in the physical environment. Plans and procedures are of no value if those who work in the organization do not know how to follow them. Everyone who works in the organization is responsible for safety, and it is important for them to know how to identify and minimize risks, what actions to take when an incident occurs, and how to report it.

### **Elements of Performance for EC.03.01.01**

- (1) Staff and licensed independent practitioners can describe or demonstrate methods for eliminating and minimizing physical risks in the environment of care.
- (2) Staff and licensed independent practitioners can describe or demonstrate actions to take in the event of an environment of care incident.
- (3) Staff and licensed independent practitioners can describe or demonstrate how to report environment of care risks.

[Note: The Sentinel Event Alert #37 issued on September 5, 2006 states that a facility shall "Provide training for, and test, those who operate and maintain the emergency power supply system."]

### **NFPA Standards**

In several of the NFPA standards education is either suggested or mandated. For instance, NFPA 70, 99 and 101 (and the Joint Commission) each refer to NFPA 110, for all maintenance, testing and educational requirements on emergency power components.

- NFPA 70 – 517-30(a) FPN No. 1 (2005) - FPN No. 1: For performance, maintenance, and testing requirements of essential electrical systems in hospitals, see NFPA 99-2005, *Standard for Health Care Facilities* [4.4.4.1.1.1].
- NFPA 99 – 4.4.4.1.1.1 (2005) - Maintenance shall be performed in accordance with NFPA 110, *Standard for Emergency and Standby Power Systems*, Chapter 8.
- NFPA 101 – 7.9.2.4 and 9.13 (2006) - Emergency generators providing power to emergency lighting systems shall be installed, tested, and maintained in accordance with NFPA 110, *Standard for Emergency and Standby Power Systems*.
- The Joint Commission – EC.02.05.07 (EP 4-8), (2009) - Note: For additional guidance, see NFPA 110, 2005 edition, "Standard for Emergency & Standby Power Systems."

As the standard to which these others reference, NFPA 110 states at 8.4.8 "The routine maintenance and operational testing program shall be overseen by a properly instructed individual." [Author's Note: This standard applies to both owners of EPSSs and the contractors who perform maintenance, repairs, and testing of the EPSS components.]

### **Manufacturer Warranties**

All manufacturers require strict adherence to proper maintenance by educated personnel. Here is an example of the wording in a major generator manufacturer's warranty which outlines conditions where claims will be denied:

*It is the owner's responsibility to ensure that the generator is operated within the manufacturer's specifications and is maintained by trained personnel, in accordance with manufacturer's recommendations, which are available on request.*

*All warranty repairs should be carried out by trained personnel using genuine parts supplied by the manufacturer. The manufacturer has no responsibility for failures*

*and consequential costs associated with fitting of parts not supplied by the manufacturer.*

### **Insurance Company Contracts**

Claims can be denied if proper procedures are not followed. Here is an example of language found in some contracts:

*Claims can be denied if the manufacturer's protocols outlined in their OEM manuals regarding maintenance, testing and repairs are not specifically followed.*

*Maintenance, testing and repairs must be performed by personnel trained for that purpose. All local, state and federal guidelines must be followed when performing maintenance.*

### **OSHA**

OSHA requires strict adherence to training of staff (and contractors) so as to prevent injuries and death. For example, 29 CFR 1910.147(c)(1) states:

***Energy control program.*** *The employer shall establish a program consisting of energy control procedures, employee training and periodic inspections to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, startup or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source and rendered inoperative.*

### **Court Rooms**

During a recent deposition where a patient was injured as a result of an internal electrical system failure, the first question the plaintiff's attorney asked was: "Can you show evidence [proof] of technician training on the maintenance of the components that failed?" The answer was no - the defense cringed.

### **Educational Facts and Budgets**

A recent MGI Systems survey revealed:

- One third of the states have testing requirements different from Joint Commission and NFPA standards.
- Two thirds of facility management departments state they need more training on Life Safety Code practices.
- One half of acute care facilities have Learning Management Systems in place; but, only one quarter of those systems contain facility management courses. That equals one eighth of the total number of hospitals having facilities management courses with 24x7 access!
- Three fifths of these facilities have training budgets of <\$5000/year, and one half of these have budgets of <\$2500/year.
- Three fifths of staff state they want to learn more and that material/courses are available, but that budgets and scheduling are obstacles.
- Over one half of respondents state that "compliance" with AHJ requirements is the main reason they need training, while over two fifths named reliability

of equipment, orientation for new employees and protection from liability also important.

- Three quarters must still travel off site, and budget cuts will soon eliminate this option.

According to the survey, educational budgets are severely limited and are not adequately appropriated for facilities management staff. Unfortunately several C-level managers do not understand that the best educated clinicians cannot provide the latest care using the latest in redundant support systems unless the people responsible for the infrastructure are trained to proactively maintain the facility. Cutting these budgets increases the chances of infrastructure failure.

### **Educational Options**

<b>Facts - Benefits</b>	<b>Vendor Session</b>	<b>Off-Site Workshop</b>	<b>Certificate Course</b>	<b>Web-based LMS</b>
Hours of training (one-day)	6	6	6	Unlimited
Certificate upon completion	Yes	Yes	Yes	Yes
Access to instructors by email	?	No	Yes	Yes
Train at your own pace	No	No	Yes	Yes
Training material updated quarterly	No	No	No	Yes
Immediate grading of exams	No	No	No	Yes
Computer generated training reports for TJC	No	No	No	Yes

### **Learning Management System (LMS) – A Better Method**

A Learning Management System (LMS) is defined as *a software tool designed to manage, deliver, track and report learning initiatives.*"

The benefits of the "web-based" LMS can be summarized in one word – organized.

- Each student receives a unique login ID which will be used to track all training and certificates awarded.
- Training can be accessed anywhere, anytime, offering flexibility in scheduling, and savings on travel costs.
- Each student has a personalized home page which will list their assigned courses and latest news items.
- Certificates online can be printed upon completing each course.
- Students and managers can retrieve records 24x7 to provide evidence of training.
- Managers can receive automatic email reports on employee training activity.

The LMS should be "dynamic", allowing for automatic updating, adding of new OEM manuals and the constant flow of information to the student – not just a "static" certificate course that becomes outdated with the next edition of a NFPA or Joint Commission standard. Thus education truly becomes "continuing".

It also should be flexible enough to accept your present protocols or training material from all sources. This allows you to have one system with all orientation and training material available to students at any time, from any computer.

Plus the LMS is less costly per "employee hour of training".

*Dan Chisholm Jr. and MGI Systems supply Learning Management Systems to the majority of healthcare facilities in the US and Canada.*