

## FY13 Top 10 LSC Citations

National					
Active Providers = 15816			Total Number of Surveys = 14817		
Tag #	Tag Description	# Citations	% Providers Cited	% Surveys Cited	
K0062	SPRINKLER SYSTEM MAINTENANCE	4,455	26.00%	30.10%	
K0147	ELECTRICAL WIRING AND EQUIPMENT	4,428	26.50%	29.90%	
K0029	HAZARDOUS AREAS - SEPARATION	3,790	22.80%	25.60%	
K0018	CORRIDOR DOORS	3,734	22.30%	25.20%	
K0038	EXIT ACCESS	3,052	18.50%	20.60%	
K0025	SMOKE PARTITION CONSTRUCTION	2,784	17.00%	18.80%	
K0144	GENERATORS INSPECTED/TESTED	2,356	13.40%	15.90%	
K0050	FIRE DRILLS	2,105	12.10%	14.20%	
K0056	AUTOMATIC SPRINKLER SYSTEM	1,886	11.60%	12.70%	
K0069	COOKING EQUIPMENT	1,772	10.90%	12.00%	

ROV					
(V) Chicago Active Providers = 3468			Total Number of Surveys = 3164		
Tag #	Tag Description	# Citations	% Providers Cited	% Surveys Cited	
K0062	SPRINKLER SYSTEM MAINTENANCE	1,246	30.90%	39.40%	
K0029	HAZARDOUS AREAS - SEPARATION	1,095	29.40%	34.60%	
K0018	CORRIDOR DOORS	941	25.30%	29.70%	
K0144	GENERATORS INSPECTED/TESTED	933	21.50%	29.50%	
K0147	ELECTRICAL WIRING AND EQUIPMENT	844	22.80%	26.70%	
K0038	EXIT ACCESS	823	22.10%	26.00%	
K0025	SMOKE PARTITION CONSTRUCTION	745	20.40%	23.50%	
K0050	FIRE DRILLS	685	16.10%	21.60%	
K0056	AUTOMATIC SPRINKLER SYSTEM	583	16.10%	18.40%	
K0052	TESTING OF FIRE ALARM	487	12.10%	15.40%	

## Ohio

Ohio Active Providers = 960		Total Number of Surveys = 759	
Tag #	Tag Description	# Citations	% Surveys Cited
K0062	SPRINKLER SYSTEM MAINTENANCE	248	32.70%
K0029	HAZARDOUS AREAS - SEPARATION	210	27.70%
K0018	CORRIDOR DOORS	191	25.20%
K0147	ELECTRICAL WIRING AND EQUIPMENT	180	23.70%
K0144	GENERATORS INSPECTED/TESTED	180	23.70%
K0038	EXIT ACCESS	175	23.10%
K0052	TESTING OF FIRE ALARM	171	22.50%
K0050	FIRE DRILLS	131	17.30%
K0056	AUTOMATIC SPRINKLER SYSTEM	128	16.90%
K0025	SMOKE PARTITION CONSTRUCTION	115	15.20%

## Wisconsin

Wisconsin Active Providers = 395		Total Number of Surveys = 348	
Tag #	Tag Description	# Citations	% Surveys Cited
K0062	SPRINKLER SYSTEM MAINTENANCE	175	50.30%
K0056	AUTOMATIC SPRINKLER SYSTEM	146	42.00%
K0029	HAZARDOUS AREAS - SEPARATION	123	35.30%
K0038	EXIT ACCESS	108	31.00%
K0147	ELECTRICAL WIRING AND EQUIPMENT	98	28.20%
K0018	CORRIDOR DOORS	96	27.60%
K0050	FIRE DRILLS	80	23.00%
K0052	TESTING OF FIRE ALARM	57	16.40%
K0051	FIRE ALARM SYSTEM	55	15.80%
K0025	SMOKE PARTITION CONSTRUCTION	55	15.80%

<b>Illinois</b>					
<b>Illinois Active Providers = 776</b>			<b>Total Number of Surveys = 805</b>		
<b>Tag #</b>	<b>Tag Description</b>	<b># Citations</b>	<b>% Providers Cited</b>	<b>% Surveys Cited</b>	
K0062	SPRINKLER SYSTEM MAINTENANCE	459	45.60%	57.00%	
K0144	GENERATRS INSPECTED/TESTED	455	44.10%	56.50%	
K0018	CORRIDOR DOORS	391	45.50%	48.60%	
K0029	HAZARDOUS AREAS - SEPARATION	354	41.20%	44.00%	
K0038	EXIT ACCESS	312	35.60%	38.80%	
K0025	SMOKE PARTITION CONSTRUCTION	296	35.40%	36.80%	
K0069	COOKING EQUIPMENT	284	35.10%	35.30%	
K0147	ELECTRICAL WIRING AND EQUIPMENT	281	32.90%	34.90%	
K0050	FIRE DRILLS	251	24.70%	31.20%	
K0054	SMOKE DETECTOR MAINTENANCE	242	24.70%	30.10%	
<b>Indiana</b>					
<b>Indiana Active Providers = 523</b>			<b>Total Number of Surveys = 469</b>		
<b>Tag #</b>	<b>Tag Description</b>	<b># Citations</b>	<b>% Providers Cited</b>	<b>% Surveys Cited</b>	
K0029	HAZARDOUS AREAS - SEPARATION	137	24.90%	29.20%	
K0062	SPRINKLER SYSTEM MAINTENANCE	136	23.70%	29.00%	
K0056	AUTOMATIC SPRINKLER SYSTEM	111	20.70%	23.70%	
K0038	EXIT ACCESS	110	20.10%	23.50%	
K0144	GENERATRS INSPECTED/TESTED	100	17.20%	21.30%	
K0025	SMOKE PARTITION CONSTRUCTION	96	18.20%	20.50%	
K0018	CORRIDOR DOORS	94	17.00%	20.00%	
K0050	FIRE DRILLS	85	14.00%	18.10%	
K0147	ELECTRICAL WIRING AND EQUIPMENT	83	15.50%	17.70%	
K0046	EMERGENCY LIGHTING	76	13.60%	16.20%	

Michigan				
Michigan Active Providers = 433			Total Number of Surveys = 428	
Tag #	Tag Description	# Citations	% Providers Cited	% Surveys Cited
K0029	HAZARDOUS AREAS - SEPARATION	211	45.30%	49.30%
K0062	SPRINKLER SYSTEM MAINTENANCE	194	40.00%	45.30%
K0147	ELECTRICAL WIRING AND EQUIPMENT	181	40.20%	42.30%
K0025	SMOKE PARTITION CONSTRUCTION	162	35.60%	37.90%
K0018	CORRIDOR DOORS	146	31.40%	34.10%
K0144	GENERATORS INSPECTED/TESTED	112	21.50%	26.20%
K0038	EXIT ACCESS	90	20.60%	21.00%
K0050	FIRE DRILLS	78	14.80%	18.20%
K0048	EVACUATION PLAN	65	13.20%	15.20%
K0064	PORTABLE FIRE EXTINGUISHERS	65	14.30%	15.20%

Minnesota				
Minnesota Active Providers = 381			Total Number of Surveys = 355	
Tag #	Tag Description	# Citations	% Providers Cited	% Surveys Cited
K0050	FIRE DRILLS	60	12.60%	16.90%
K0029	HAZARDOUS AREAS - SEPARATION	60	15.00%	16.90%
K0056	AUTOMATIC SPRINKLER SYSTEM	51	11.50%	14.40%
K0144	GENERATORS INSPECTED/TESTED	50	9.70%	14.10%
K0052	TESTING OF FIRE ALARM	46	10.80%	13.00%
K0054	SMOKE DETECTOR MAINTENANCE	39	8.40%	11.00%
K0062	SPRINKLER SYSTEM MAINTENANCE	34	8.40%	9.60%
K0038	EXIT ACCESS	28	7.10%	7.90%
K0011	COMMON WALL	27	6.60%	7.60%
K0017	CORRIDOR WALLS	24	6.30%	6.80%

## Top Ten Deficiencies and Helpful Hints to Avoid Them

(Deficiency numbers for ~~Nation~~ from FY13)

*Region 5*

### K62 – Sprinkler System Inspection, Testing, and Maintenance

- Sprinklers cannot be painted, corroded/oxidized, loaded, or have other impediment
- The spare sprinkler cabinet must contain at least six sprinklers, with the stock being at least two of each type and temperature rating of sprinkler installed in the building. Also, there must be a special sprinkler wrench for each type of sprinkler

### K29 – Hazardous Areas

- Doors for nonsprinklered hazardous areas must be at least 45min fire resistance rated (there should be unpainted labels on each door) (Existing HC)
- Hazardous area enclosures may need to be 1hr fire resistance rated in addition to requiring sprinkler protection (New HC and severe hazard existing HC)
- Doors for all hazardous areas need to fully self-close (All hazardous room doors will be tested on a survey)
- Soiled utility bins need to be stored in a hazardous room when unattended
- Doors can only be held open by a device that releases upon activation of the fire alarm system, local smoke detectors, and/or the sprinkler system

### K18 – Corridor Doors

- Corridor doors can be held open with a device that releases with a push or pull of the door, if the door is not required to be self-closing or automatically releases upon activation of the fire alarm system if required to be self-closing
- Corridor doors in sprinklered buildings must be smoke resisting (gap between the face of door and the stop on the frame cannot exceed .5in). Corridor doors in nonsprinklered buildings must be 20min fire resistance rated or be 1.75in solid-bonded wood core and must be smoke resisting (gap between the face of the door and the stop on the frame cannot exceed .25in)
- Corridor doors require automatic positive latches

### K144 – Emergency Generators

- Weekly visual inspections must be conducted and documented (Manufacturer's recommendation list or list of applicable items from NFPA 110 Appendix A)
- Monthly load tests must be done for a minimum of 30min under load (cool down without load must be outside of the 30min test)
- Monthly load tests for all generators must meet one of the requirements of NFPA 110 Section 6-4.2 (There must be sufficient information to show how the load tests meet requirements)
- A remote annunciator panel must be installed in a separate location from the generator with an audible trouble signal in a location where it can be heard 24hrs a day (Remote panel trouble indicators should at a minimum mirror the trouble indicators on the generator. If no trouble indicators on generator, remote panel should consist of a general audible and visual trouble alarm)
- If generator is located indoors there must be at a battery-powered emergency light in the generator room. If the generator is located outdoors then there either needs to be a battery-powered emergency light at the generator location or it needs to be accessible for a car to provide illumination with its headlights (A flashlight at the generator location does not meet this requirement)

### K147 – Electrical

- Unacceptable use of power strips (Daisy-chained, high-current draw devices, medical equipment)
- Missing junction box, light switch, or electrical outlet cover plates
- Extension cords being used for more than temporary use

### **K38 – Means of Egress**

- The floor level on each side of the door must be level (In existing buildings there can be a grade change if the change is equal to that of one step)
- Delayed-egress devices can only be installed in a building that has either a complete sprinkler system or complete fire detection system. Also, there must be an instruction sign on the door with a delayed-egress device. Delayed-egress devices must release upon activation of the fire alarm or within 15 seconds of an acceptable amount of force being applied to the door for no more than three seconds. Also, there can only be one delayed-egress device in a means of egress
- Doors must open with only one releasing operation
- Means of egress must be clear and unobstructed at all times and useable in all weather conditions

### **K25 – Smoke Barriers**

- Continuity of smoke barriers (Outside wall to outside wall or other smoke barrier and from floor to roof/floor deck above)
- Properly firestopped penetrations (Existing penetrations must resist the passage of smoke. New penetrations need an approved through penetration system)
- Properly firestopped smoke barrier/floor joint systems (flutes of corrugated metal decks cannot be left open or be filled with only insulation or other loose filled material)
- Expandable foam cannot be used (Fire rated expandable foam does not contain a fire resistance rating. It only has a flame spread rating)
- Smoke barriers must be continuous to the roof deck of a roof/ceiling assembly

### **K50 – Fire Drills**

- Fire drills must be documented (Time, date, transmission of alarm, etc.)
- Fire drills must be conducted at a frequency of one per shift per quarter
- Fire drills must be conducted under varying conditions (Time during shift, location, type of fire, etc.)

### **K56 – Sprinkler System Installation**

- Sprinklers cannot be obstructed by other objects (light fixtures, ducts, cubicle curtains, storage)
- Sprinklers must be properly spaced from other sprinklers (Distance between two sprinklers should be between 6ft and 15ft)
- Unsupported sprinkler pipe arm-overs cannot exceed 24in for steel pipe (12in for copper pipe)
- Sprinkler pipes must be properly supported off the building structure (hangers must be properly spaced for size and type of pipe and all installed hangers must be maintained in their installed locations)
- All areas of a building must be sprinkler protected for a building to be considered fully sprinklered (Combustible overhangs greater than 4ft, elevator machine rooms, electrical rooms, walk-in coolers/freezers, and closets are the most commonly omitted areas)

### **K52 – Testing of Fire Alarm System**

- Provide all the information required on NFPA 72 – 1999 Edition, Figure 7-5.2.2
- Provide list of inventory of all Alarm-Initiating Devices
- Individually list all of the initiating devices that were tested and results of the test.
- Lack of quarterly test of off-premises transmission equipment.