

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Motion Detector Switched Means of Egress Emergency Illumination

Code: 2008 North Carolina Electrical Code
Section: 700.20

Date: February 16, 2011

Code: 2009 North Carolina Building Code
Section: 1006.3 & 2701.1

Question:

Can means of egress emergency illumination as required by NCBC, Section 1006.3 be controlled by automatic motion sensor-type lighting switches?

Answer:

No. The NC Electrical Code states the following concerning switching of emergency powered light circuits:

The switch or switches installed in emergency lighting circuits shall be arranged so that only authorized persons have control of emergency lighting.

Exception No. 1: Where two or more single-throw switches are connected in parallel to control a single circuit, at least one of these switches shall be accessible only to authorized persons.

Exception No. 2: Additional switches that act only to put emergency lights into operation, but not disconnect them shall be permissible.

This will be interpreted to mean that switches other than those required for maintenance or service of the circuit are prohibited. Switches other than those required for maintenance or service are an additional source of circuit failure that the code intends to disallow. In this case public safety is required ahead of energy savings.

This document does not apply to means of egress illumination that is allowed by the code to be powered by sources other than emergency power.

Keywords:

Motion detector, motion, switch, switched, means of egress, lighting, light, illumination, power, electrical, light fixture