



Oregon

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Building Codes Division Statewide Interpretation

PROGRAM: Electrical Program
SUBJECT: Wiring methods for FAA lighting on cellular towers
SOURCE: 2005 Oregon Electrical Specialty Code
REFERENCE: Section 400.7, 2005 National Electrical Code
DATE OF ISSUE: Re-Issue April 1, 2005
PREPARED BY: John Powell
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QUESTION: Is flexible cord approved for the wiring of FAA warning lights on cellular towers?

ANALYSIS:

Cellular towers are constructed either as a single pole (Mono-tower) or as a lattice structure. Both are subject to winds and do sway and twist extensively enough to cause conduit fittings to break or loosen. Due to this movement, flexible cord or cables identified for the use shall be permitted.

The lighting controller, cables and fixtures are Federal Aviation Administration (FAA) approved and listed by Underwriters Laboratories (UL) and usually come as an assembly with the cords connected to the fixture. The length of the cords are intended to run from the lamps to the light controller. The distance is determined and designed by the manufacturer to provide long lamp life and proper flash rate which is also FAA approved. It shall be permissible to install both cords in a 2 inch raceway from the base of the tower to the location of the light controller. Continuity of the cords eliminates splicing to assure reliability.

Vertical cords and cables shall be securely attached to a lattice tower at intervals recommended by the cord or cable manufacturers. Cord and cables in a mono-tower shall be supported to a messenger cable at intervals recommended by the manufacturer.

DETERMINATION:

Yes, flexible cord or cables approved for outdoor use may be used to supply power to warning lights on cellular towers.

