

# International Association of Electrical Inspectors

## Wisconsin Chapter

Western Section

In Cooperation With:



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NEWS BULLETIN

### I. 1987 WISCONSIN CHAPTER ANNUAL CODE SEMINAR

Enclosed is the program for our May 6-8, 1987 Code Seminar in Wausau and a Wausau Area Map providing directions to the Holiday Inn. Plan to ATTEND.

### II. GASOLINE DISPENSER INSTALLATIONS

The interconnecting wiring between gasoline dispensers on service station islands and the control and monitoring equipment within the station has caused a number of questions. These questions result from attempting to determine if the control or monitoring circuits are Class 1 or 2 circuits as determined by NEC Article 725.

If the circuits are Class 2 circuits, then NEC 725-38(a)(2) would prohibit them from being installed in the same raceway or enclosure with power circuits. If they are Class 1 circuits, then NEC 725-15 would permit them to be in the same raceway or enclosure with the power supply conductors to the dispenser since they are functionally associated.

In evaluating these control and monitoring circuits, there was no clear confirmation that they met the requirements of a Class 1 circuit and as a result were required to be installed in separate raceways and not allowed in the raceway with the power supply conductors. This caused at least 2 problems. One was the cost of adding a separate raceway for rewiring of existing stations. Secondly, even with separate raceways, the power supply and control or monitoring circuits terminated in a common enclosure in the dispenser.

The department (DILHR) has been in extensive communication with U.L. regarding this subject and has reached the following determination.

1. In U.L. Listings of gasoline dispensers, circuits with established Class 2 power levels are identified for this wiring level (See NEC 725-34). Where the circuits have not been identified as Class 2, then the use of Class 1 wiring methods are expected to be used, although Class 1 is not identified on the equipment. Where Class 2 is not marked on the power supply unit in accordance with NEC 725-34, the circuit is considered to be a Class 1 circuit or equivalent to a Class 1 circuit.

2. Where the equipment is U.L. Listed and not marked Class 2, the control and monitoring circuits may be installed in the same raceway with the dispenser power supply conductors in accordance with NEC 725-15 providing that method is consistent with the manufacturers instructions. If a manufacturer specifies separate raceways, ch. ILHR 16.11 would require compliance with the manufacturers instructions.

### III. INDIVIDUAL LETTER NEON SIGNS

NEC Section 600-4 requires every electric sign to be listed unless otherwise permitted by special permission (written consent of DILHR).

Our July 1985 NEWS BULLETIN included a letter of special permission exempting listing of Channel (front-lit) or Reverse Channel (back-lit) Individual Letter Neon Signs.

This special permission applies only where the individual letters are mounted separately against a building wall or similar structure. Where the individual letters are mounted on or against a wiring trough or channel, the assembly is considered to be a sign requiring Listing (recognized and labelled by U.L., ETL or other recognized testing laboratory).