Revised 8/27/03

El Segundo Fire Department
Fire Prevention Division

Fire Prevention Interpretation # 03-2
Verification of Emergency Voice/Alarm Communication System Wattage

---

The El Segundo Fire Department has reviewed testing protocols to verify a fire/life safety system emergency voice/alarm signaling system audible indicating devices (amplifier and speakers) have exceeded their designed capacity. National Fire Protection Association Standard 72 "*National Fire Alarm Code*", 2002 edition, section 6.8.2.2 require all component subsystems of a fire alarm control unit to be capable of simultaneous, full load operation without degradation of the required overall system. California Code of Regulations, Title 24, Part 9, "*California Fire Code"* 2001 edition, section 1001.5.1 requires all fire alarm system to be operable at all times.

Amplifiers in existing fire/life safety system emergency voice/alarm signaling systems have been found to be in an overload condition. To verify these systems will operate as designed, the El Segundo Fire Department has initiated an ohm impedance test to verify amplifiers and speaker circuits are less than 90 percent of the amplifier's listed wattage. This test is performed whenever a circuit is modified, or a new system or circuit is installed. The test shall be performed using an approved impedance type ohm meter. A standard multi-meter testing for ohms on the speaker circuit is not acceptable. The impedance type ohm meter must be able to be calibrated. All impedance type ohm meter shall have received calibration within one year prior to the test date. The wattage found shall be identified on the amplifier, identifying the circuit tested, wattage found and date of test.