

CASE STUDY

Mission Critical/Power Quality

Emergency Operations Center Critical Infrastructure for Metro Nashville

Nashville, TN



The City needed to upgrade their Emergency Operations Center (EOC) to improve the interdepartmental communication and response to emergency/disaster situations. Puckett Engineering was retained to provide solution for the EOC's electrical infrastructure, which included the following:

- Evaluation of various types of lighting with respect to comfort, function, and costs. Incorporated tri-level switching to control the illumination levels.
- Supplied all critical circuits from an existing 2N redundant UPS system, including the addition of a new panelboard supplied from the UPS system.
- Replacement of all wiring within EOC.
- Coordinated electrical requirements of the modular furniture with the interior designer for supplying the anticipated equipment and for coordination with the circuiting.
- Power for printers, fax machines, and plasma TVs.
- The design incorporated distribution equipment and wiring for compatibility with power system harmonics caused by nonlinear electronic loads.
- Identification of devices in order to readily identify devices and know where they feed from. In addition, color coding of nameplates were utilized to quickly identify whether a circuit is supplied from emergency or UPS power.
- Special considerations were incorporated into the design for minimizing any negative impacts on the facility's aesthetics.
- Construction administration services were also provided.

PROBLEM OR NEED

Metro needed to improve their interdepartmental communication and response to emergency/disaster situations. Central to this effort was the EOC's critical electrical infrastructure which needed a comprehensive upgrade.

PUCKETT SOLUTIONS

Supplied critical circuits from an existing 2N redundant UPS system.

Replaced all wiring within the EOC.

Power for printers, plasma TVs, and other equipment.

Identification and color-coding of equipment and devices to enable quick identification of circuit power source.

Construction administration.



Year Completed: 2009
