

Emergency Communications Center Backup Facility for Metro Nashville

Nashville, TN



For continuity of emergency response operations and disaster recovery planning, the Metro ECC needed a backup site for Metro Nashville's E-911 and Emergency Management operations. Metro purchased an existing 10,000 SF facility that required modifications for accommodating the backup E-911 and Emergency Management operations. Puckett Engineering's solutions for the critical infrastructure included the following:

- Modifications to the existing lighting, power, and fire alarm systems.
- A UPS system for supplying critical equipment.
- An emergency generator system. Due to proximity of generator exhaust to HVAC outside air intake, controls were incorporated to shut-off the HVAC air intake while generator was operating.
- Replaced most of the existing lighting.
- The design included equipment and wiring for control and mitigation of power system harmonics caused by the UPS system and nonlinear electronic type loads.
- Fault and coordination studies.
- Identification of electrical and mechanical equipment to identify equipment and devices and where they feed from. In addition, color-coded nameplates quickly identify whether a circuit is supplied from emergency, UPS, or normal power.
- The design included adding a new closed-circuit television (CCTV) system, including a digital video recording system and four pan-tilt-zoom outdoor cameras.
- The existing access control and intrusion detection system was modified as required to meet the owner's needs and was interfaced with the CCTV system for camera call-up at entrances.
- Computer room air conditioner for the IT and radio equipment room.
- Construction administration services were also provided, including commissioning and closeout documentation.

PROBLEM OR NEED

Critical infrastructure for adaptation of existing building for use as backup facility.

PUCKETT SOLUTIONS

Modifications to lighting, power, and fire alarm systems.

UPS system for critical equipment.

Emergency generator system.

Control and mitigation of power system harmonics.

Addition of CCTV and DVR system for security.

A/C system for computer room.

Construction administration and commissioning.

Year Completed: 2003
