

09 NCAC 06C .0210 PUBLIC SAFETY ANSWERING POINT (PSAP) FACILITIES

(a) All 911 system equipment, software, and services used in the operation of the PSAP shall be implemented and maintained to ensure continuity of 911 call taking.

- (1) Systems that are essential to the operation of the PSAP shall be designed to accommodate peak workloads.
 - (2) PSAPs shall be designed to accommodate the staffing level necessary to accommodate peak workloads.
- (b) Primary and secondary power sources shall be determined by the PSAP including the following provisions:
- (1) At least two independent and reliable power sources, one primary and one secondary, shall be provided. Each shall be of adequate capacity for operation of the PSAP.
 - (2) Power sources shall be monitored for integrity, with annunciation provided in the operations room.
 - (3) Primary Power Source. One of the following shall supply primary power:
 - (A) A feed from a commercial utility distribution system;
 - (B) An engine-driven generator installation or equivalent designed for continuous operation, with a person specifically trained in its operation on duty at all times; or
 - (C) An engine-driven generator installation or equivalent arranged for cogeneration with commercial light and power, with a person specifically trained in its operation on duty or available at all times.
 - (4) Secondary Power Source.
 - (A) The secondary power source shall consist of one or more standby engine-driven generators. The PSAP shall ensure that a person specifically trained in its operation is on duty or available at all times.
 - (B) Upon failure of primary power, transfer to the standby source shall be automatic.
 - (5) Engine-driven generators shall be sized to supply power for the operation of all functions of the PSAP.
 - (A) When installed indoors, engine-driven generators shall be located in a ventilated and secured area that is separated from the PSAP by fire barriers having a fire resistance rating of at least two hours.
 - (B) When installed outdoors, engine-driven generators shall be located in a secure enclosure.
 - (C) The area that houses an engine-driven generator shall not be used for storage other than spare parts or equipment related to the generator system.
 - (D) Fuel to operate the engine-driven generator for a minimum of 24 hours at full load shall be available on site.
 - (E) Equipment essential to the operation of the generator shall be supplied with standby power from the generator.
 - (F) Generators shall not use the public water supply for engine cooling.
 - (6) A Stored Emergency Power Supply System (SEPSS) shall be provided for telecommunications equipment, two-way radio systems, computer systems, and other electronic equipment determined to be essential to the operation of the PSAP.
 - (A) The SEPSS shall be of a class that is able to maintain essential operations long enough to implement the formal Comprehensive Emergency Management Plan.
 - (B) The instrumentation required to monitor power shall be remotely annunciated in the operations room.
 - (7) Power circuits shall include their associated motors, generators, rectifiers, transformers, fuses, and controlling devices.
 - (8) The power circuit disconnecting means shall be installed so that it is accessible only to authorized personnel.
 - (9) Surge Arresters otherwise known as Transient Voltage Surge Suppression (TVSS) shall be provided for protection of telecommunications equipment, two-way radio systems, computers, and other electronic equipment essential to the operation of the PSAP.
 - (10) Isolated Grounding System. Telecommunications equipment, two-way radio systems, computers, and other electronic equipment essential to the operation of the PSAP shall be connected to an isolated grounding system.
 - (11) Uninterruptible Power Supply (UPS) and Battery Systems. A UPS and battery system shall be installed in accordance with local, State, and the federal safety regulations and be sufficient to

prevent power surges from damaging equipment in the PSAP as well as provide power for all essential 911 Emergency Center operations until the backup power source can be fully activated.

- (A) Each UPS shall be provided with a bypass switch that maintains the power connection during switch over and that is capable of isolating all UPS components while allowing power to flow from the source to the load.
- (B) The following UPS conditions shall be annunciated in the operations room:
 - (i) Source power failure, overvoltage, and under-voltage;
 - (ii) High and low battery voltage; and
 - (iii) UPS in bypass mode.
- (C) The UPS and Battery Systems shall be capable of providing power for the PSAP when the Primary Power Source is not functioning but the duration of the outage is not sufficient to activate the Secondary Power Source.

History Note: Authority G.S. 62A-42;
Eff. July 1, 2016.