

**CI-0703****TAB 7: TECHNICAL DISCIPLINES**

Electrical

There should be a load bank for testing available on site rather than bringing a load bank onto site and connecting and disconnecting it. This load bank shall be able to be added in steps for testing up to 110 of the generators capacity. The controller shall have provisions for disconnecting a load bank (during exercise) if there is a loss of normal power by an Electrical and Mechanical interlock through ATS.

NATURAL GAS GENERATOR REQUIREMENTS

-Details TBD

UNINTERRUPTIBLE POWER SUPPLY (UPS) REQUIREMENTS

Uninterruptible Power Supplies (UPS) are used to support Life Safety systems and protects computers and other sensitive electronic loads from power outages and other power anomalies. This Section includes 3 phase ≥ 3 kVA and Single phase < 3 kVA, on-line, static-type, UPS system, comprising the following:

- Complete rectifier/charger-battery-inverter system with automatic static switch and maintenance by-pass circuit;
- Central Monitoring System for all UPS units, along with proper interfacing with METROLINX software, IT communication and station operations shall be provided in order to display and control all required parameters. All intercommunication shall be through the Mod bus, BAC Net, etc.;
- Input isolation transformer for UPS units, where technically required; and
- Connection of normal AC power from assigned terminals/switch/circuit breaker.

The UPS shall be of commercial type and shall comply with relevant IEC, EIA, NEMA, NFPA 70, IEEE, ISO 9001, ISO 14001, UL-1778, CSA, FCC Class A and Life Safety certified standards. Radio frequency interference (RFI) suppression shall be in accordance with CISPR and IEC 50091-2 recommendations. UPS should be certified for use to support Life Safety Systems.

UPS assembly shall include a mimic diagram with digital and LED displays, indicating instruments and control devices, in true relative positions.

1. General requirements

To meet the existing codes, a separation of equipment backup power and life safety devices must be achieved by a life safety approved UPS system. The UPS shall be interposed between normal AC power supply and critical load, to secure a minimum period of continuity of no-break battery back-up in case of failure of normal AC supply and maintain output voltage, frequency and phase deviation