1 General
1.1 All Packaged Generator Assemblies shall conform to UL 2200 and be appropriately tagged.
1.2 All Packaged Generator Assemblies shall meet the requirements for Emergency Systems, NEC Section 700
1.3 All Packaged Generator Assemblies shall have a Seismic Restraint & Vibration Isolation Submittal
1.4 Provide a concrete pad that extends at least 4 feet from the generator base on all sides.
1.5 This equipment (including the engine generator, generator controls, access platform and automatic transfer switches) should be supplied by a single Supplier who has been regularly engaged in the sales and service of engine-generators, generators, engine auxiliaries, transfer switches, and controls for a minimum of five years.
1.6 The Supplier must have a local representative who can provide factory-trained servicemen, required stock of replacement parts, and technical assistance.

2 Fuel and Fuel Tank
2.1 The fuel shall be diesel with a 24-hour tank unless specified otherwise. Fuel tank shall meet all EPA requirements. Obtain Purdue approval if sizing tank other than 24-hour.
2.2 Fuel fill shall be inside the enclosure
2.3 Fuel overflow shall be inside the enclosure
2.4 Fuel level gage shall be inside the enclosure

3 Life Safety Transfer Switch
3.1 Life safety loads are to be on their own transfer switch.
3.2 The life safety transfer switch shall be fed as per the applicable NEC section 700
3.3 The transfer switch for life safety may be of the open transition style

4 Standby and optional Standby Transfer Switch
4.1 Provide a separate transfer switch for: legally required standby loads; and optional standby loads.

4.2 The standby and optional standby transfer switch shall be fed as per the applicable NEC sections 701 and 702
4.3 These transfer switches shall be of the closed transition style
4.4 Note: Refer to Section 26-3600 Automatic Transfer Switches

5 Emergency shutdown
5.1 Provide an Emergency stop button inside the generator enclosure.
5.2 Do not provide a separate Emergency Stop button for remote installation.

6 Generator access
6.1 Provide a service platform when the top of access doors are more than 72 inches above grade. Set the platform elevation such that the top of the access doors are no more than 72 inches above the platform. Provide a commercially available platform assembly.
6.2 All service points are to be accessible without the use of a ladder. Stairs should be used to access the platform.
6.3 The walkway (stairs and platform) shall meet standards of OSHA 3124 - Stairways and Ladders and NEC minimum working space requirements.
6.4 Platform and stairs are to be removable for major servicing, and only connected to the generator by bolts or properly supported from the concrete pad surrounding the generator base with required isolation.
6.5 Maintain bonding integrity within the generator assembly and any service platforms connected to the frame assembly.
6.6 All Panel Doors must be lockable.
6.7 Generator doors are to be hinged and mounted with removable hardware. Lift-off panels are not acceptable unless they are hinged.
6.8 If fluid fill or other inspection points are on the top exterior of the unit, provide a means of access. This should be removable with a storage space within the enclosure.

7 Dual Purpose Load Bank and Portable Generator Docking Station
7.1 Provide a dual purpose load bank and portable generator docking station rated for outdoor use.

7.2 The load bank docking station shall be able to accept a portable load bank rated and sized to fully load-bank test the generator to 100% of its nameplate rating.

7.3 The load bank docking station shall be equipped with a “load-dump” feature that will automatically disconnect the portable load bank from the generator upon the transfer of any ATS on the system. Intercept the load-bank contactor(s) control circuit and series it through the N.C. (normally closed) Aux. contacts (when the ATS is in the “Normal” power position) for each ATS. Provide a NEMA ML-2P receptacle mounted in the load-bank docking station and wired to the ATS contacts as referenced above.

7.4 The docking station shall be able to accept a portable generator in case the permanent generator is out of service for maintenance or repair. This provision shall not require modification of the permanent system wiring.

7.5 Where feasible, provide a start signal interface for the portable generator, which would start the generator with a signal from a transfer switch.

7.6 The docking station for the portable unit shall be labeled with phase rotation and system bonding requirements.

8 Sound Considerations

8.1 All panels to be fitted with sound absorbing media

8.2 Provide sound attenuation so that the noise level at 7 meters is less than 80 dB.

9 Lights

9.1 Include switched service lights inside the enclosure

9.2 Provide lights inside the generator service yard. Lights to be on battery back-up.

10 110 VAC Power

10.1 Include a 110 VAC service duplex receptacle inside the enclosure

10.2 Provide the battery charger with a cord and plug. Do not hard wire the charger for ease of removal to perform maintenance.

10.3 Clearly label the generator lights, receptacles, jacket water heaters, battery charger, etc. with the circuit(s) that feed them.

11 Air Intakes

11.1 Shall be provided with motorized dampers to prevent snow infiltration.

11.2 Shall be screened to keep birds out.

12 Approved Manufacturers

12.1 Caterpillar

12.2 Cummins Power Generation

12.3 Kohler

12.4 MTU Onsite Energy