PHYSICAL FACILITIES
2017 Consultant’s Handbook
Division 26 ELECTRICAL
3200 PACKAGED GENERATOR ASSEMBLIES

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 switch(es)) 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 can be of the open transition style

4 Standby and optional Standby Transfer Switch
4.1 Legally required standby and optional standby loads each are to be on a separate transfer switch.

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

5 Emergency shutdown
5.1 Do not specify a remote Emergency stop button for remote installation inside the building.
5.2 Do not specify a remote Emergency stop button for installation on the outside of the housing enclosure.

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 Sound Considerations
7.1 All panels to be fitted with sound absorbing media
7.2 Provide sound attenuation so that the noise level at 7 meters is less than 80 dB.

8 Lights
8.1 Include switched service lights inside the enclosure
8.2 Provide lights inside the generator service yard. Lights to be on battery back-up.

9 110 VAC Power
9.1 Include a 110 VAC service duplex receptacle inside the enclosure
9.2 Provide the battery charger with a cord and plug. Do not hard wire the charger for ease of removal to perform maintenance.

10 Air Intakes
10.1 Shall be provided with motorized dampers to prevent snow infiltration.
10.2 Shall be screened to keep birds out.

11 Approved Manufacturers
11.1 Caterpillar
11.2 Cummins Power Generation
11.3 Kohler
11.4 MTU Onsite Energy