



Generator Permits

Generator Permit Fees: Generator permit fees are based on the kW of the generator along with mandatory permit fees (see permit application) and are due at the time of submittal. An additional storage tank permit may be required by the Fire Marshal for the generator if it runs off of a portable, stationary, or propane storage tank. Check with the Fire Marshal for additional requirements. June 2016

When applying for your permit, the following items must be attached with the application at the time of submittal:

Provide:

1. A simple site plan showing the location of the structure, service equipment, electrical feeder(s), generator, etc.
2. One-line drawing. Be sure to show control wiring, grounding, and bonding.
3. Load analysis for the service and the load which the generator will supply. The generator output must meet or exceed the load which it supplies. If you use a "load shedding" ATS, show the load calculations for the load connected to the critical circuits.
4. Electrical and fuel specifications (phase, voltage, Btu, etc.) for the generator, ATS and the service equipment.
5. Copies of manufactures installation instructions for generator and ATS switch. **The owner's copy will suffice since the copies will be returned after plan review.**
6. **On commercial equipment**, there must be either a remote e-stop located near the service equipment or a Knox box located at the service equipment with a key to the generator panel that has the factory installed generator e-stop located behind the panel. Check with the Electrical Inspector and the Fire Marshal to see which safety feature will be required.

References:

1. 250.24 Grounding Service-Supplied Alternating-Current Systems
2. 250.35 (A) Separately Derived Systems reference to Section 250.30 Equipment Bond Jumpers.

3. 250.35 (B) Nonseparately Derived Systems reference to Section 250.35 (B)(1) and Section 250.35 (B)(2).
4. 250.102 (C) Equipment Bond Jumpers on the Supply Side of the Equipment
5. 250.102 (D) Equipment Bond Jumpers on the Load of the Service Equipment
6. Article 220
7. Article 230
8. Article 240
9. Article 250: 250.20, 250.24, 250.28, 250.30(A), 250.35(A) or (B)
10. Article 445
11. Articles 700, 701, 702

Notes:

1. 230.7: Conductors other than service conductors shall not be allowed in service raceways. **You cannot feed thru the meter can to the ATS and then back thru the meter can to the original panel.**
2. 250.24: the grounding and bonding of the grounded conductor can only be made at the service equipment. Has a sub-panel been created with the installation? Be sure and observe the rules for grounding and bonding any sub-panel.
3. 445.13: if the generator does not have its own circuit breaker, feeders will probably be 115% of the nameplate rating of the generator.
4. 445.11, 700: all equipment must be approved for the intended use (listed and labeled).
5. Mechanical gauges used to measure test pressures shall have a range such that the highest end of the scale is not greater than five times the test pressure.
 - i. **406.4.1 Test pressure:** the test pressure to be used shall be no less than 1 ½ times the proposed maximum working pressure, but not less than 3 psig (20 kPa gauge)
6. If the ATS has a main breaker, the ATS must be rated for service equipment.
7. The service entrance conductors or service lateral must be protected at the ampacity. For example, a 125 amp service cannot be protected by an ATS with a 200 amp main breaker. Either change the breaker to 125 amp or install a 125 amp over current protective device ahead of the ATS.
8. 702.4: the kW rating of the generator must be per this section. Under sizing of the generator will require load management. NEC 220.87 may be used to determine the existing load on the service.

9. 702.7: permanent signs with minimum one inch letters are required indicating there is a generator on site. The signs are required at the following locations (no “magic marker” type of signs will be allowed):
 - i. A sign at the service equipment- indicating type, size, and location
 - ii. A sign on each panel fed by the generator- indicating alternate energy source type and location.
 - iii. A sign on the Knox box (if installed) stating the generator key is inside
 - iv. If a Knox box is installed, a sign must be installed on the generator panel that has the factory installed generator e-stop located behind the panel indicating the e-stop is located here.
10. 701.3: **On the final**, there must be a start-up man or electrician on site to start and run the generator. Simulate a power outage to insure proper operation of generator and transfer switch. The house needs to be accessible so the polarity of a few receptacles may be checked. **No exceptions!**
11. Follow the requirements for a residential service, as applicable. The residential information is a separate sheet and is included with the generator permit information.
12. Commercial- there must be a start-up technician or electrician on site to start, run, and simulate a power outage to insure proper operation of generator and transfer switch. Exception: if generator and transfer switch is certified by a third party, a copy of their report certifying both generator and transfer switch’s proper operation may be accepted in lieu of witnessing.