



## BUILDING-ELECTRICAL GENERATORS INSTALLATION GUIDELINES

Permanent generators must be permitted and inspected by the West University Place Development Services department. Applications must be submitted by a licensed and/or registered contractor and must include:

- A survey showing the generator's location, setbacks, pad construction details and elevation—See below for allowed locations and maximum noise levels.
- The location of the generator's **fuel source** and the **type of fuel** to be used. Include fuel riser diagram;
- A one-line diagram inclusive of type of conductors and wiring methods to be utilized. Include grounding and bonding notes. A complete specification booklet outlining this detailed information.
- Itemized electrical loads to be served.
- Transfer switch specifications.
- Generator specifications.
- Generator pad specifications.

### Application Permit Requirements

A building permit application fees for installing a generator is based on the valuation of the project. This establishes the location, setbacks, noise level and elevation of the generator. Electrical and Plumbing permits will also be required for the installation of the generator. Note: A plumbing permit will not be required should the generator be powered by LP Gas bottles of less than 10 pounds and no plumbing work is performed for connection.

### Contact Center Point Energy Before Installation

The homeowner or installer must contact Center Point to arrange for disconnection and tentatively re-connection of the electrical service as needed.

**Center Point: 713.207.2222**

**NOTE: GAS LINES, REGULATORS AND OTHER RELATED APPURTENANCES ARE TO BE INSTALLED BY LICENSED PLUMBING CONTRACTORS ONLY. GAS PERMITS SHALL BE SECURED BEFORE ANY WORK IS TO BEGIN.**

### Reconnect and Underground Inspections

After installation, contact Development Services for the required Reconnect and Underground Inspections. Underground conduits must be inspected in their entirety;

**NOTE: THE WEST UNIVERSITY ELECTRICAL INSPECTOR MUST APPROVE THE WORK BEFORE CENTER POINT ENERGY RE-ESTABLISHES POWER TO THE PREMISES.**

### Transfer Switch

Permanently installed equipment for the connection of a portable generator must comply with Section 702.5 of the 2017 National Electrical Code (NEC). The manual transfer equipment will require an interlock device suitable for the intended use. This device must be installed to prevent the inadvertent interconnection of the normal and the optional system supply. The connection device must be a UL Standard 231 Listed Power Outlet.

### Guidelines for Permanent Generators with Manual Transfer Switches

Permanently installed generators with permanently installed manual transfer equipment must comply with the provisions for portable generators or use a Listed Transfer Switch or Panel Board. The equipment must be installed to allow the user to select the connected loads upon manual transfer.

### Guidelines for Permanent Generators with Automatic Transfer Equipment

Permanently installed generators with automatic transfer equipment must comply with the provisions of Section 701.5 (A) (C) of the 2017 National Electrical Code.

The calculated load as determined by Article 220 of the 2017 NEC must not exceed the rating of the generator output. Please note that a "Demand Load" will not be accepted in lieu of the calculated load.

**All load calculations** must be included with the approved permit documents and must be available on site with the permit and approved plans at the time of the inspection. All transfer equipment must be listed. Automatic transfer equipment installed on the supply side of the method of disconnecting the service must be listed as suitable for use as service equipment.

### Signage

Permanent signs must be posted at all the above-described installations that comply with Section 702.7 of the 2017 National Electrical Code. The required signs must indicate the type and location of the on-site optional standby power source, and must be permanently installed and located at the service disconnection point and at the meter enclosure.

**NOTE: ALL EQUIPMENT MUST BE INSTALLED PER THE MANUFACTURER'S INSTRUCTIONS.**

## Portable generators

Generators that supply power to connected equipment through built-in receptacles mounted on the generator **do not require permits or inspections.**

## Safety Comes First

However, they must be placed well away from a home or any air intake to prevent the danger of carbon monoxide poisoning.

### **NEVER OPERATE FUEL POWERED GENERATORS IN AN ENCLOSED SPACE, EVEN A GARAGE.**

As with any of the equipment listed above, be sure to read and follow all safety precautions in your user's manual.

If you have any questions please contact us at

**713.662.5833** or **713.662.5834**

Thank You,

**Clay Chew, CFM**

*Chief Building Official*

## Maximum Noise Level

Chapter 54, Section 54-40 City Code of Ordinance

The **maximum noise** level allowed by Ch. 54 of the city code of ordinances is 70 decibels at the property line, measured from the adjoining property owner's side of the fence.

### **Sec. 54-40. Enumeration of Specific Noises.**

- (4) The sound of any mechanical equipment installed at a fixed location (Examples: fans, compressors, condensers, pumps, etc.), if:
  - When the equipment is operating, noise from the equipment is discernable at a point outside the boundaries of the site where it is installed, and noise at that point is measured at a level of 70dB(A) or higher; and
  - b. Immediately before or after operation of the equipment, noise at the same point is measured at a level of 65dB(A) or lower.
- All sound level measurements shall be made as provided in this article.
- The **location** is controlled by Ch. 7 of appendix A table 7-6 projections, note 6, see below.

### **Note 6. Equipment in Rear or Side Yard**

- **REAR YARD:** Indicated equipment may project into a rear yard only if: **(a)** separating the equipment from any building site across the rear lot line, there is a solid wall at least one foot higher than the highest part of the equipment;

**(b)** if the equipment occupies any part of an easement under the control of the City, the City has issued a separate acquiescence or consent to the occupancy of the easement; **(c)** there has been formally granted to the city any utility easement deemed necessary by the City's chief utility official; **(d)** the base of the equipment is not higher than 14 inches above the ground (**Exception:** The base may be elevated to the minimum level of the lowest floor of the principal building, as established by the City's flood damage prevention ordinance, if that level is higher than 14 inches above the ground.); and **(e)** if located within five feet of any property line, the equipment is fully encased in a sound-absorbing cabinet or is otherwise designed and operated to comply with the City's noise regulations; see Chapter 54 of the Code of Ordinances.

- **SIDE YARD:** Indicated equipment may project into an interior or street side yard (but not closer than three feet to a property line) only if it is fully encased in a sound-absorbing cabinet, or is otherwise designed and operated to comply with the City's noise regulations; see Chapter 54 of the Code of Ordinances. However, equipment replacing older equipment in a side yard may project as close as 18 inches to a property line, if the fire marshal determines that such projection will not significantly interfere with emergency access, either on the same site or on another site.