

Residential GENERATOR Checklist & Guide For Permanent Installation Outdoors

(2015 IRC requirements as amended by St. Louis County Ordinances for 1-& 2-Family Dwellings and Townhouses)



This **Generator Checklist** is based on St. Louis County's (SLCO) policies, construction codes amended and adopted by ordinance. See list below. It is not a substitute for those codes and ordinances, but serves as a guide to reading them. More information and explanation is provided in commentaries and interpretations published by St. Louis County and acknowledged code organizations.



List of Applicable Codes and Ordinances:

2015 International Residential Code (IRC) & Ordinance #27,654-Ch.1116 ("R" "G", "N", and "M" references and Appendix K - Sound Transmission).

2015 International Building Code (IBC) & Ordinance #27,654-Ch.1116/5 ("B" references).

2014 National Electrical Code (NEC) aka NFPA 70 & Ordinance #27,430-Ch.1102 ("E" refs).

2015 International Mechanical Code (IMC) & Ordinance #27,619-Ch.1108 ("IMC" refs).

2015 Uniform Plumbing Code (UPC) & Ordinance #27,424-Ch.1103 ("P" references).

For inquiries regarding the information provided in this guide, please contact:

St. Louis County Permit Processing _____ (314) 615-5184

St. Louis County Zoning Review _____ (314) 615-3763

St. Louis County Building Plan Review _____ (314) 615-5485

Right-of-Way Owner _____

State _____ (888) 275-6636

County _____ (314) 615-8517

Municipality _____ Call the project site's Municipality

St. Louis County's Municipal Contracts Matrix shows those municipalities that currently contract for its Code Enforcement services. The Matrix is on our web site at <https://stlouiscountymo.gov/st-louis-county-departments/transportation-and-public-works/residential-building/>

For the electronic plan review, scan QR code or visit us online at <https://stlouiscountymo.gov/st-louis-county-departments/transportation-and-public-works/electronic-plan-review/>



Sections from the Codes, their Referenced Standards, and St. Louis County Ordinances, are shown at ends of statements and are *italicized* in parentheses (.).

NOTICES Regarding Permits



- The applicant (property owner or the Contractor) is responsible for contacting those agencies that may be affected by the new work, or that may have legal oversight of the new work along with but separate from St. Louis County. Where requirements among the agencies conflict, the most restrictive shall govern the new work. Contact these agencies before beginning work approved under a permit issued by St. Louis County. Such agencies may include:
 1. The project site's Municipality;
 2. The Local Fire Protection District;
 3. The Transportation Department;
 4. The Sewer District; and
 5. Subdivision Trustees.
- Permit issuance for the project does not automatically authorize construction access to that project site. If a project site's driveway entrance is unavailable for construction access or none exists, the property owner or authorized Contractor must apply for a permit with the Owner of the Right-of-Way (may be the County's Highway Dept. or the Municipality) to construct a temporary entrance.
- Project-specific site plans submitted with the permit application should include the following:
 1. Draw an arrow over the property's existing driveway, and point it into the lot. Label the arrow as "Construction Entrance";
OR
 2. Draw an arrow over a proposed alternate access location, and point it into the lot. Label the arrow as "Construction Entrance". Note on the site plan: *"A separate special use permit for a construction entrance will be obtained from the street right-of-way owner before the start of construction access to the project site"*.
- **The Plan Reviewer** may determine the proposed work, construction, or conditions require additional drawings and information be submitted to Code Enforcement-Plan Review for review, beyond the minimum submittal requirements noted in this Checklist.

Submittal Requirements



Submit the following for a permit to permanently install a generator on residential property in St. Louis County's jurisdiction. Items provided in *parentheses italicized* (.) are referenced codes and ordinances.

- **For Properties in Unincorporated St. Louis County:**
 1. An **electronic** building permit is required to install a permanent generator.
 2. The required electrical permit, and any mechanical or plumbing permit required for the generator's installation are integrated into the building permit.
 3. Submit an **electronic** set of site plan(s) with the **electronic** building permit application. Show the proposed location of the generator, and note its distances from property lines and buildings on the lot (*B107.2.1*).
 4. The application and drawings may be submitted for over-the-counter, While-You-Wait review.

5. The building, electrical, and mechanical or plumbing permit applications may each be submitted for a While-You-Wait plan review, where Zoning has been approved.
 6. The Zoning Official may sign-off on the Electrical Permit Application before it is issued. This is the same procedure followed for outside above-ground tanks processed under a mechanical permit.
- **For Properties in a Municipality** contracting with St. Louis County for its Code Enforcement Services:
 1. Obtain an electrical permit to connect the new work generator to the house electrical system.
 2. Obtain a mechanical or plumbing permit where:
 - a. The new work generator requires gas piping be provided to it;
 - b. Exhaust/ventilation ductwork is part of the generator installation.
 3. Permit applications may be submitted and permits issued over-the-counter by Permits Processing.
 4. **Notice:** The installer is responsible for:
 - a. Complying with the Municipal Zoning requirements of the project property and;
 - b. Obtaining any other approvals required by the Municipality before work commences.

Design & Installation Requirements & Considerations



The items below are St. Louis County requirements for generator permanent installation on a residential property. See the drawings at the end of this checklist for additional reference.

Zoning (for Un-incorporated areas)

- The location of a generator on a property must comply with the same side- and rear-yard setbacks established by Zoning Ordinances as any other structure not having an exception noted.

Electrical

- A generator shall have one or more means for disconnecting its electrical power and shall be lockable in the open position (*E110.25; E445.18(A)*).
- Install transfer switch with a generator to prevent inadvertent connection of normal and alternate sources of supply. Manual or automatic transfer equipment made be provided (*E702.4; E702.5*).

Mechanical

- The generator shall be placed on a level pad of concrete or other approved material, with the pad's surface at least 3" above the adjoining grade (*R305.7; G2408.4*).
- The generator manufacturer's installation manual and other published data may be required for submittal to justify a distance closer between generator and structure than is allowed by the Codes.
- **A** mechanical or plumbing permit is required to install a gas line to the generator. The site plans are to show and label the gas line run from the building to the generator.
- A mechanical or plumbing permit is required for any exhaust piping or ventilation ductwork provide with the generator installation. Submit drawings showing the new piping or duct work proposed.
- Generator exhaust openings shall be directed away from, and located at least 10'-0" from, a building's operable windows and fresh air intake openings (*M1301.1; IMC-401.4-Item 2*).
- The generator enclosure shall be at least 5'-0" from a building opening and/or a combustible wall, to reduce the fire hazard risk of the generator (*M1301.1; IMC-915; Ref. Std. NFPA 37-Section 4.1.4*).
Exception: The distance may be reduced or not required where drawings submitted show:
 1. The building wall is noncombustible or;

2. The building wall is combustible, but section drawings submitted show the exterior wall is a 1-hour fire-resistance rated assembly tested, approved, and classified by an approved testing agency, like Underwriters Laboratories aka UL.
3. The manufacturer's published data provides the generator has a noncombustible enclosure tested or calculated to prevent a fire within the enclosure from igniting combustible materials outside the enclosure, when separated by a reduced distance noted by the manufacturer.

Noise

- There are no specific code requirements regarding generator noise levels. However, there is a general code requirement that new work provides for the general welfare. Please consider the proximity of your neighbor's residence and the locations of their operable windows when selecting a generator location on your property. Keep in mind sound-blocking fences or walls taller than 6'-0" on properties in Unincorporated St. Louis County require a permit application be submitted to obtain County Zoning review and approval. County Zoning may have setback requirements for the fence.

Notice: The preceding requirements apply to most simple projects for a **Generator** installation on residential property. However, the Plan Reviewer may determine the actual new work proposed requires additional information be submitted to verify its compliance with codes. The above requirements are based on the construction codes in effect at the time this checklist was last updated. Please be aware St. Louis County Code Enforcement updates its construction codes every few years.

