

## **INITIAL SUBMITTAL REQUIREMENTS - MECHANICAL**

# PERMANENT RESIDENTIAL EMERGENCY GENERATORS FOR SINGLE & TWO FAMILY DWELLINGS

A building permit application for a residential generator is processed concurrently with all applicable and approved electrical, structural, mechanical, gas piping, and storage tank permits. The permit application for installation must be submitted as a combined permit application with all applicable permits. The submittal requirements include a site plan and the information below to assist an applicant with the review and processing of the permit. Vendors and applicants are encouraged to check the requirements for restrictions of Community and Homeowners Associations on the placement and acceptable location for a permanent residential generator.

## **Zoning Code Related Locational Requirements:**

All distance setback and separation requirements shall be measured from the most restrictive of the generator's enclosure or exhaust outlet. The location and spacing between structures and other mechanical air intake equipment shall be shown on the site plan. The setbacks must include from house to generator and generator to property line. The site plan shall be provided with the building permit application. General setbacks, spacing and site plan requirements are:

- 1. Front Yard- When the front yard setback is 35 feet or more, the generator shall be no greater than 6 feet in distance from the principle structure and measured from the nearest point of the generator to the front lot line. For corner lots, the generator can be allowed in the front yard which has the longest street frontage at a distance to the lot line based on the side yard setback standard set out in LDC section 5.03.07 Table 1 below.
- 2. Rear and Side Yard —Specify the distance to lot lines and road right-of-ways in conformance with Table 1 setback standards.
- **3. Spacing** The generator's spacing shall be per manufacturer's requirements and NFPA-110 between the principal structure and shown on the site plan. If there is an existing nearby generator, the separation distance between both generators must be 10 feet or greater.
- 4. Site Plan- The site plan shall demonstrate compliance with the County's setback, separation criteria and the manufacturer's installation and placement specifications to exterior walls, openings, eaves, soffit vents, shrubs, trees and property line. All nearby existing and proposed dwelling unit wall openings within 10 feet of the generator shall be shown on the site plan and with the actual dimensions of the generator. The location of the generator, electric service equipment and propane tank, if applicable, shall be shown on the site plan.
- **5. Easements-** When the generator is located within any easement, a letter of support confirming the easement holder's approval must be submitted before the building permit application can be processed. All easements shall be shown on the site plan.
- **6. Landscaping and Vegetative Screening-** When a generator is located in the front yard or rear yard of a waterfront lot, a vegetative screen shall be shown on the site plan. The location shall be no closer than three feet from landscape plantings, 5 feet from shrubs and trees, or the required manufacturer's specifications, whichever is greater.

LDC 5.03.07 TABLE 1: (Feet) Principal Structure Setback		Generator Distance to Lot Line
Side Yard	5 or less	1
	Greater Than 5 and Up To 7.5	2
	Greater Than 7.5 and Up To 20	4
	Greater Than 20	10
Rear Yard		10 waterfront
		5 non-waterfront
Separation		
Distance to Public and Private Road Right-Of-Way		10
Between Mechanical Air Intake Equipment or Other Generator		10
Distance from Windows, Soffit Vent, Eaves To the Dwelling, Shrubs and Trees		5
Distance from Gas and Electrical Meters, Pool Pumps, Water and Water Softener Systems, AC Compressors and Landscape Plantings		3

# **Building Code Related Requirements:**

The generator building permit application shall be submitted and simultaneously reviewed with the applicable electrical, mechanical, plumbing, gas, and structural permits. After the final building permit inspection is completed, an approved 10 day spot survey is required to verify the locational and separation requirements before the issuance of a certificate of completion.

**Elevation-** For new construction, verify the generator will be elevated to or above the elevation required by the Residential Florida Building Code section R322.1.6 or Florida Building Code-Building, Sec.1612 (ASCE) as applicable. Otherwise, the generator shall, at a minimum, be elevated to the base flood elevation or one foot above the base flood elevation within a flood hazard zone or the lowest floor elevation of the home being served.

#### Electrical - National Electrical Code.

An electrical permit must be obtained prior to installation. The permit must include, at a minimum, the following:

- 1. Three copies of the generator load calculations, which shall include showing how any loads were to be shed.
- 2. Location of electrical panel and transfer switch (NEMA-1 enclosure or NEMA 3R enclosure for outdoor location) on the site plan, including the distance to the electrical meter (minimum of 3 feet is required).
- 3. Generator specifications shall include: 3 copies of the electrical riser diagram showing existing and new, meter can indicating meter main or not), amperage rating of transfer switch, connected load, size of conduit, conductors, over current protection devices and switches. If service is greater than 600 amps, a Florida Registered Electrical Engineer must seal drawings.
- 4. A generator one line diagram.
- 5. The connection between generator frame and ground rod when required.
- 6. Identify transfer switching as "manual, automatic, separately or not separately derived".
- 7. Provide calculations for maximum and minimum kilowatts for operating loads (both running and starting).

## Mechanical-Florida Residential Code, Section R303.5.1 and Mechanical Code M1602.2

1. Provide the location and distance of the generator's exhaust to all exterior wall openings: windows, doors, exhaust fans, appliance air intake vents, open soffit, and eaves within 10 feet of the generator.

## Plumbing and Gas- (propane and natural gas) - Plumbing and Fuel Gas Code

A gas permit must be obtained prior to installation of an above ground or underground tank container.

- 1. Location and distance to the natural gas meter and container shall be shown on site plan. If located in a flood zone, provide the FEMA 50% or an Elevation Certificate.
- 2. Location of propane gas container shall comply with minimum separation distances to other containers, buildings, property lines and sources of ignition established in Tables 6.3.1, 6.4, 6.5.2.1 and Sections 6.3.2 through 6.3.4.5 of the National Fire Protection Association (NFPA-58).
- 3. Location of water, sewer, well, and interceptors shall be shown on site plan.
- 4. Three copies of site plan showing Gas piping diagram that include the following:
  - Isometric of piping layout
  - Longest run of gas pipe (from source of farthest outlet)
  - Pipe size(s)
  - Appliance (s) BTU output
  - Type of materials used-gas table used from minimum sizing
- 5. Identify the fuel tank capacity and cross reference the generator's operating time.

# Structural - (generator pad or foundation)

A structural permit may be required. If so, three copies of the structural slab and pad detail shall be submitted.

- 1. Verification is required that the allowable soil bearing capacity, per Florida Building Code Section 1803.5.1 and 1806.2, will support the slab and generator for all loads.
- 2. Provide generator pad size, thickness and reinforcement. The minimum pad size shall extend at least 3 to 6 inches beyond the generator dimensions or per manufacturer's requirements.
- 3. Verification that the manufacturer's specifications are to the anchoring details for wind loads.

# Fire Protection - National Fire Protection Association (NFPA)

- 1. Plans must be submitted with details to demonstrate compliance with NFPA-110 and NFPA-37.
- 2. Identify the class, type, and level of generator. Specify the exterior dwelling unit fire wall rating.
- 3. Identify location of an emergency shut-off-switch with signage, for visibility by an approaching emergency personnel.
- 4. Identify the generator's fuel supply and/or supply lines. Identify the amount and type of fuel. Demonstrate compliance of the fuel system, and/or fuel storage system to be used with NFPA-30, NFPA-37, NFPA-54, and NFPA-58.

#### **Exhaust Emissions and Precautions**

- 1. Provide the generator's heat radiation specifications and any exhaust precautions to minimize carbon monoxide poisoning.
- 2. When a generator is located underneath the dwelling unit, show where the exhaust outlet is vented above the dwelling unit's roof line.
- 3. If any exterior wall openings are within 10 feet of the generator's exhaust outlet (including a neighboring property), provide the interior location and height of carbon monoxide detectors on each floor level. Submit two copies of the floor plan with the detector's location.

# **PERMANENT EMERGENCY GENERATOR- Permit Application Required Materials:**

All documents in this list must be completed:

1. Building Permit Application is required with a site plan.

- a. Owner-Builder Affidavit must be provided by Owner-Builder (must be notarized by County Staff).
- **b.** Other Applicable Permit Fees.
- **2.** Provide a copy of the Manufacturers manual for installation and placement. The manuals are available from the manufacturers or can be retrieved from their website.
- 3. Notice of Commencement (NOC). Required any time before scheduling first inspection. A certified copy of the NOC is required if job value is equal to or greater than \$2,500.
- 4. Provide a copy of the site plan with the dimensions of the generator, generator's exhaust outlet direction, and permanent fuel tank and distance to dwelling unit and lot line.

# **Apply Online:**

- Go to the **CityView portal**: <u>https://cvportal.colliercountyfl.gov/cityviewweb</u>
- Click "Register"

# **To Track Plan Review and Inspection Progress:**

- 1. Go to the CityView portal: https://cvportal.colliercountyfl.gov/cityviewweb
- 2. Click "Status and Fees".
- 3. Enter the permit number or the address where the construction will take place.
- 4. If your search returns more than one result, click "Permit Status" next to the permit you want to track.
- 5. Click "Documents & Images" to review correspondence from the county.

## For questions regarding permits, please contact your local office:

Naples Permitting Office 2800 N. Horseshoe Drive Naples, FL 34104 (239) 252-2400 Immokalee Permitting Office 310 Alachua St. Immokalee, FL 34142 (239) 252-5733 Everglades City Office 102 Copeland Ave. North First Floor, City Hall Everglades City, FL 34139