

# Text Study

Docket No. TXT-2-22 Summary No. 26026 Mechanical Equipment PARISH COUNCIL
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**Study Intent:** To evaluate, establish, and amend standards and requirements related to mechanical equipment; and providing for related matters.

**Authorization:** Res. No.137391 (3/31/2021)

Council District: Parish-wide

**PAB Hearing:** 9/8/2022

**Last Meeting Date** 

for Council Action: 1/4/2023

## **OVERVIEW**

Mechanical equipment is not currently defined in the Code of Ordinances, but generally consists of any fabricated or pre-fabricated machine or object that is ancillary or supportive in function, which includes, but is not limited to, any appliance, apparatus, equipment, or component that comprises any part of a heating or air conditioning system, generator, pool pump, or filter. Mechanical equipment, especially generators, provide essential support to residents during natural disasters, weather events, and other power outages.

The Jefferson Parish Code of Ordinances does not have clear setback requirements for mechanical equipment. Based on certain exception provisions for accessory buildings and structures, the Parish has interpreted that mechanical equipment may be located in certain residential zoning districts within the buildable area and rear yard, but not the side yard(s), provided certain setbacks and additional criteria are met. Mechanical equipment also has to meet all federal, state, and local requirements as well manufacturer requirements.

Hurricane Ida hit Jefferson Parish on August 29, 2021 resulting in major damage to the southeastern part of the state, including Jefferson Parish, and threatening the safety, health, and welfare of the citizens of Jefferson Parish, along with private property. Numerous calls for service related to generators as well as casualties caused by carbon monoxide poisoning have raised health and safety concerns relating to Standby or wholehouse generators.

Staff identified several issues with the regulations related to mechanical equipment. As part of this study, the Planning Department is proposing amendments to the regulations, including establishing definitions related to mechanical equipment and adding clear setback requirements and additional standards and variance limitations for generators. Added standards related to the placement of generators that are necessary to protect public health, safety, and welfare of the residents of Jefferson Parish.

#### STAFF RECOMMENDATION

- Establish clear setback requirements and other standards for generators and other types of mechanical equipment
- Clarify roof-mounted mechanical equipment allowability provided that they meet maximum building height requirements, all federal, state, and local fire, safety and building codes, and all other applicable codes.
- Apply, but not codify Specify additional standards for generators:
  - Clarify that Generators shall be installed according to manufacturer's specifications, federal, state, and local fire, safety and building codes, and all other applicable codes, and Department of Inspection and Code Enforcement policies and procedures.
  - Require verification of carbon monoxide detectors with installation in accordance with state law.
- Create limitations for Board of Zoning Adjustments (BZA) zoning variances for generators
- Add definitions for mechanical equipment and generator.

## PLANNING ADVISORY BOARD RECOMMENDATION

On September 8, 2022, the PAB deferred to September 22, 2022 (see PAB minutes). On September 22, 2022, the PAB recommended approval (see PAB minutes).

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#### **BACKGROUND**

On March 31, 2021, the Parish Council adopted Resolution No. 137391, which authorized the Planning Department and Planning Advisory Board (PAB) to evaluate, establish, and amend standards and requirements related to mechanical equipment; and provide for related matters. The study was called in a response to a request from the Home Builders Association of Greater New Orleans (HBAGNO) dated March 17, 2021. The HBAGNO requested that the Parish consider allowing mechanical equipment to placed a minimum distance of 5 feet from the side property lines in the R-1B Suburban Residential District, R-1C Rural Residential District, and R-1D Rural Residential District.

Resolution No, 137391 authorized the study of various parish regulations related to mechanical equipment. This report primarily addresses definitions, setback requirements for mechanical equipment and other development standards for generators. The evaluation of newer forms of power generation such as electric charging stations authorized by this study will be the subject of a future report.

# Study Timeline and Outreach

The Planning Department worked closely with the Department of Inspection and Code Enforcement to clarify existing standards, policies and procedures related to mechanical equipment permits, and solicited input from and made presentations on preliminary findings and recommendations to the Home Builders Association of Greater New Orleans (HBAGNO) and other local agencies, boards, and Parish Councilmembers over the course of the study.

After the study was called in March 2021, Staff met with representatives from the Home Builders Association of Greater New Orleans (HBAGNO) in June 2021. Over the course of Summer 2021, staff met with individual HVAC, generator, and pool equipment installers to discuss potential mechanical equipment definitions, setback requirements, and other issues related to installation.

In August 2021, Hurricane Ida hit the Louisiana Gulf Coast and New Orleans metropolitan area and raised additional life safety concerns regarding whole house generators. In November 2021, Staff worked with the Department of Inspection and Code Enforcement and the Eastbank Consolidated Fire Department to ensure that the permit process for whole house and commercial generators thoroughly addressed issues related to life safety and installation.

Planning followed up with the Department of Inspection and Code Enforcement in June

2022 to discuss proposed regulations and new pre-inspection procedures. In Summer 2022, Planning Staff expanded outreach. In addition to meeting with the HBAGNO twice, Planning introduced the proposed recommendation to the Board of Zoning Adjustments (BZA) and Council members in August 2022.

# Mechanical Equipment in General

Jefferson Parish issues permits for the installation of different types of mechanical equipment including pool equipment, air conditioning units, and generators. Jefferson Parish has a unique set of climatic conditions that make mechanical equipment such as heating, ventilation, air conditioning (HVAC) systems, and backup Standby generators more common than in other jurisdictions. HVAC systems, or air conditioning units, are necessary to supply comfortable temperatures to homes, businesses, and other facilities.







Figure 1. Mechanical Equipment Examples. Image Sources: <a href="https://pardueplumbing.com/plumbing-services/pool-equipment-repair/">https://www.toptenreviews.com/plumbing-services/pool-equipment-repair/</a>, <a href="https://www.leecompany.com/resources/whole-house-generator/">https://www.leecompany.com/resources/whole-house-generator/</a>

#### Generators

Generators are a necessity during extreme power outages. Generators can run temporary power to various appliances necessary for survival and comfort, including but not limited to: HVAC equipment, refrigerators, televisions, and power sources used for charging cell phones and other electronics. There are two types of generators offered: Standby or whole-house and portable generators.

A standby or whole-house generator is a backup power solution that provides power to residential dwellings, businesses, and other facilities including hospitals and other essential or emergency operations, in the event of a power outage. These types of generators are becoming more of a life safety necessity in Southeast Louisiana.

Extreme weather and need for backup generator power may have contributed to an increase in generator permits over the last few years:

- 5/1/18- 5/1/19: 169 generator permits
- 5/1/19-5/1/20: 244 generator permits
- 5/1/20-5/1/21: 701 generator permits
- 8/29/21-8/3/22: 1,231 generator permits

Standby whole-house generators are usually stationary often require a concrete pad or stand used as a foundation usually situated outside a residence, facility, or on the roof.

This type of generator can power multiple appliances and devices while using natural gas. Standby or whole-house generators are professionally installed, permanently fixed, and require a parish permit for installation (Figure 2).

Standby whole-house generators connect to the home's electrical system, as well as the home's natural gas line. An automatic transfer switch is turned on when the house or business loses power. When electricity is restored, the generator is automatically turned off. The generator will turn on occasionally for tests (Figure 3).

A portable generator is a gas or diesel-powered device which provides temporary electrical power and can move to any location on a given site. Portable generators may power some appliances and devices. In addition, portable generators, like many automobiles need refueling based on usage frequency.





Figure 2. Portable (Top Image) vs. Whole-house (Bottom Image) Stand-by generators. Image Sources: <a href="https://www.leecompany.com/resources/whole-house-generator/">https://www.leecompany.com/resources/whole-house-generator/</a>



Figure 3. Overview of how generators work. Image Source: https://generatoradvisor.com/best-whole-house-reviews/

There are some key differences between standby or whole-house generators and portable generators.

 In terms of safe distances to structures: standby or "whole house" generators may be located much closer to the structure. Standby generators may be located between 18 inches to 3-5 feet from the exhaust outlet to all structures depending on the specific manufacturer companies. However, portable generators are recommended to be 20 feet from all structures according to NFPA.

 Standby whole-house generators are permanently fixed, professionally installed and require a permit for installation. Whereas, portable generators may be moved to various locations on a given site, do not require professional installation, nor a Parish issued permit.

To clarify, Jefferson Parish does not currently and will not regulate portable generators as part of this study.

Generators can cost between \$6,000 to \$11,000 depending on the brand and wattage amount. Some generator installation necessitates the addition of a new gas line. Adding a new gas line can range from \$120 to \$1,800 depending on the average cost of a new line is \$563 per Home Advisor. Some installation requires the extension of an existing line which can cost between \$15 to \$25 per linear feet, plus an additional cost for labor. Currently, Jefferson Parish has restrictions for locating mechanical equipment in the required side yard, which is typically the closest access to the existing gas line and utilities. Site constraints and zoning restrictions may trigger the need for the extension of the gas line to the rear yard where generators are currently permitted to be located a minimum of three feet from the side and rear property lines.

# Life Safety Concerns

Although generators can benefit the community, many emit carbon monoxide, which may poison individuals who rely on machines to keep their family safe, especially during extended power outages.

"As climate change and the nation's aging infrastructure combine to cause worsening storms and longer power outages, experts warn that more people are turning to portable generators every year — a trend that benefits manufacturers' bottom line while putting more people at risk."

Various incidents across the country shed light on the potential danger associated with generators. Per information obtained from the Jefferson Parish Fire Department (JPFD), there were over 700 generator calls for service after Hurricane Ida 08/29/2021 – 09/20/2021<sup>4</sup>. A family of three individuals in JP died after the storm from carbon monoxide poisoning related to a recently purchased portable generator.

While there were multiple calls for the New Orleans Metro area, this is not just a problem unique to the metro. Generators can cause carbon monoxide problems throughout the United States. At least 10 people in February after a massive winter storm knocked out power across Texas, causing more than half of the known carbon monoxide deaths linked to the outage, according to medical examiner investigations and incident reports.

<sup>&</sup>lt;sup>1</sup> https://www.forbes.com/advisor/home-improvement/generator-cost-guide/

<sup>&</sup>lt;sup>2</sup> https://www.homeadvisor.com/cost/plumbing/install-or-repair-gas-pipes/

<sup>&</sup>lt;sup>3</sup> "Generators poison thousands of people a year. The U.S. has failed to force safety changes." N.d. NBC News. https://www.nbcnews.com/news/us-news/generators-carbon-monoxide-poisoning-rcna9027.

<sup>&</sup>lt;sup>4\*</sup>Data obtained from JPFD did not differentiate between portable or "whole house"/stand-by generators

Even though many carbon monoxide issues have been from portable generators, many "whole house" Standby generators also emit carbon monoxide and may contribute to poisoning.

# Current Regulations, Standards, and Specifications

International codes, manufacturer's specifications, and the Jefferson Parish Department of Inspection Code Enforcement policies and procedures indicate where generators can be installed in relation to surrounding structures, features, and property boundaries. As part of this study, Staff evaluated the following:

- Manufacturer's specifications;
- Other applicable Codes including the NFPA (National Fire Protection Association)
   Code and the 2015 International Mechanical Code (Ventilation);
- Department of Inspection Code Enforcement Policies and Procedures; and
- Zoning restrictions related to the Jefferson Parish Code of Ordinances.

Manufacturers all have slightly different requirements, many have models that are allowed up to eighteen (18) inches from structures because they have fire rated enclosures (Table 4, Exhibit A). Most equipment also requires weekly exercise, which usually entails running the generator for 30 minutes once per week.

In addition to setback restrictions, there are additional distance restrictions structures and openings. These restrictions are tied to NFPA 37, International Mechanical Code, and Department of Inspection and Code Enforcement policies and procedures. A summary of the current restrictions that have been applied in Jefferson Parish are shown below in Table 1. These requirements are addressed in more detail in the analysis section of this report.

Table 1. Summary of Jefferson Parish Zoning Setbacks and Other Distance Requirements for Generators.

Setbacks	Distance to Structure	Distance to Openings
Allowed within the	5 feet from windows, doors,	10 feet from any soffit,
buildable area and	or other openings and <u>5 feet</u>	eave, or fresh air vent
required rear yard, at	from structures having	(Department of
least 3 feet from property	combustible walls (NFPA 37	Inspections and Code
line; not permitted within	4.1.4); If an adjacent wall or	Enforcement
the required front and	structure has a fire	Procedures)
side yard setbacks (JP	resistance rating of at least 1	
Code Sec. 40-742 (a);	hr. or enclosure shall be <u>18</u>	
Sec. 33-5.3.2)	inches from any part of the	
	enclosure to the wall (NFPA	
	37.4.1.4) *; 5 feet from a	
	patio covering, carport, or	
	other overhang projection	
	(Department of Inspection	
	and Code Enforcement	
	Procedures)	

Table 1. Summary of Jefferson Parish Zoning Setbacks and Other Distance

Requirements for Generators.

Setbacks	Distance to Structure	Distance to Openings
	*Code will allow operable windows, that are not a required egress window, to be sealed. A picture and comment needs to be uploaded to the permit during code's or parish's final inspection showing and stating the window is sealed.	

#### Permit and Variance Research

During the period from 2018 to 2021, there were eighty-six (86) variance requests for mechanical equipment. Thirteen (13) of the cases did not result in a ruling. The remaining seventy-three (73) were approved.

For generators, there has been a sharp increase over a four-year span, with just 169 total permits during the first year analyzed to 1,231 since Hurricane Ida. The last few active hurricane seasons, could attribute to the substantial increase. The number of permits for generators per year are provided below:

• 5/1/18- 5/1/19: 169 generator permits

• 5/1/19-5/1/20: 244 generator permits

• 5/1/20-5/1/21: 701 generator permits

• 8/29/21-8/3/22: 1,231 generator permits

Variance requests have increased as well. There has been a total of 72 requests in three years for the side yard alone.

- 31 variances for generators located less than 3 feet from the property line.
  - 28 of 31 zoned R-1A
- 7 variances for generators located 3 feet from the property line.

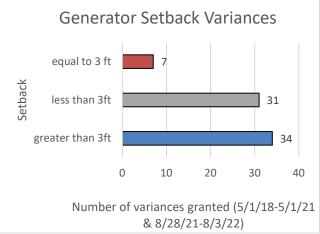


Figure 4. Breakdown of number of variances between 5/1/18 – 5/1/21 and 8/28/21 – 8/3/22.

- 3 of 7 zoned R-1A
- 34 variances for generators located greater than 3 feet from the property line.
  - 10 of 34 zoned R-1A

There is a total of 41 variances being in R-1A zoning district. Where 31 of the 72 requests – or 43 percent – were for the R-1B, R-1C, and R1D zoning districts. (Figures 5 and 6).

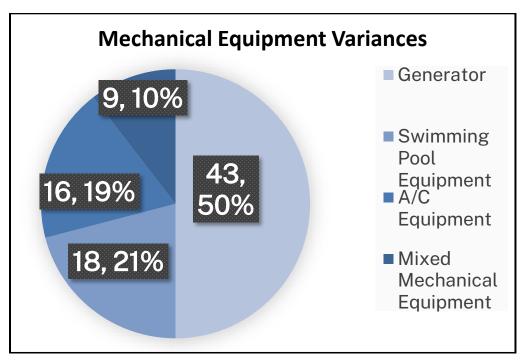


Figure 5. Breakdown of mechanical equipment variances between May 1, 2018 and May 1, 2021.

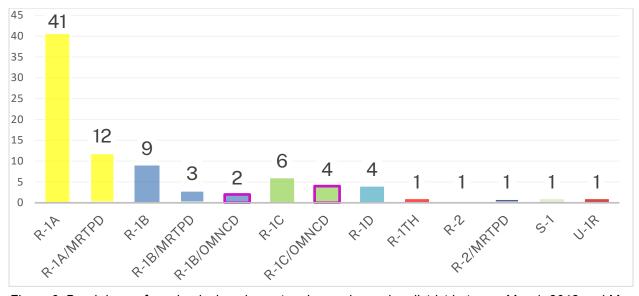


Figure 6. Breakdown of mechanical equipment variances by zoning district between May 1, 2018 and May 1, 2021.

## **ANALYSIS**

The analysis for this report includes an analysis of how similar communities regulate mechanical equipment, including definitions and locational requirements; research of previous permits and variance requests, and issues with current and potential regulations and specifications.

# Mechanical Equipment

To get a sense of typical locational requirements for mechanical equipment, staff looked at other jurisdictions in Louisiana and across the country (see Table 3). **Setback requirements vary amongst those reviewed. For example,** University Park, TX in suburban Dallas allows mechanical equipment up to two (2) feet from neighboring properties. **However,** other places are less lenient requiring mechanical equipment up to eight (8) feet from side property lines and ten (10) feet from rear property lines depending on screening (Table 2).

**In general,** many jurisdictions allow mechanical equipment, within side yard setbacks. Although, some other communities allow a smaller side yard setback (less than five feet) for mechanical equipment, many of the jurisdictions reviewed do not reference the manufacturer specifications nor specifically address the threat of carbon monoxide associated with generators (Table 2).

Other communities have additional distance and operational requirements that apply. St. Tammany Parish has more strict distance requirements to buildings than Jefferson Parish, which may account for the lesser setback requirements (Table 2 and 5). Newport Beach, CA requires at least one setback be entirely clear of any protrusions or equipment to ensure accessibility to the rear of the property. Lafayette City-Parish Consolidated Government has requirements based on decibel level or the machine and operating hours (Manufacturers may also have varying requirements based on the type of equipment that are more stringent than the allowable setbacks in Table 2).

Table 2. Jurisdiction comparison chart for minimum rear and side yard setbacks for mechanical equipment.				
Jurisdictions	Rear Yard Side Yard Types of Equ (Minimum (Minimum distance from property line) Types of Equ included			
			Mechanical	
New Orleans, LA <sup>7</sup>	Five (5) Feet	Three (3) Feet	Equipment*	

<sup>&</sup>lt;sup>5</sup> "City of Newport Beach Zoning Code." Accessed November 5, 2021. http://www.newportbeachca.gov/Pln/Zoning Code Adopted/Chapter 20.30.pdf

Council

Municode Library. Accessed November 5, 2021. <a href="https://library.municode.com/la/lafayette\_city-parish\_consolidated\_government/codes/code\_of\_ordinances?nodeld=PTIICOOR\_CH34EN\_ARTIVNOCO\_S34-366MAPESOLE">https://library.municode.com/la/lafayette\_city-parish\_consolidated\_government/codes/code\_of\_ordinances?nodeld=PTIICOOR\_CH34EN\_ARTIVNOCO\_S34-366MAPESOLE</a>
New Orleans, Louisiana Comprehensive Zoning Ordinance. Article 21 Section 6. Accessory Structures and Uses.

Table 2. Jurisdiction comparison chart for minimum rear and side yard setbacks for mechanical equipment.				
	Rear Yard (Minimum	Side Yard (Minimum	Types of Equipment included	
	distance from	distance from	moradoa	
Jurisdictions	property line)	property line)		
- Our is dictions	property inie,	property line)	Mechanical	
			Equipment* (not	
			including pool	
Shreveport, LA8	Three (3) Feet	Three (3) Feet	equipment)	
Gretna, LA <sup>9</sup>	Five (5) Feet	Five (5) Feet	N/A	
			For air conditioning	
			units only	
	Two and a half	Two and a half		
	Feet (2.5 feet)	Feet (2.5 feet) from		
Zachary, LA <sup>10</sup>	from rear lot line.	side lot line.		
	Three (3) ft. front	Three (3) ft. front	Generators only	
St. Tammany	and end clearance	and end clearance		
Parish, LA <sup>11</sup>	from property line	from property line		
National Jurisdicti	ons			
			Mechanical	
Fairfax, VA <sup>12</sup>	Five (5) Feet	Five (5) Feet	Equipment*	
Hillsborough		Up to two one half	Mechanical	
County, FL <sup>13</sup>	Up to five (5) Feet	(2.5) feet	Equipment*	
	Ten (10) Feet (If	Eight (8) Feet (If	Mechanical	
	screened may be	screened may be	Equipment*	
Arlington, VA <sup>14</sup>	8)	5)		
University Park,			Mechanical	
TX <sup>15</sup>	Two (2) Feet	Two (2) Feet	Equipment*	

https://czo.nola.gov/article/#s21-6-T

https://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=universitypark&collection=universityparkzoning&doccode=z2Co

Shreveport, Louisiana Unified Development Code. Article 7 Section Permitted Encroachments. https://library.municode.com/la/shreveport/codes/unified development code?nodeId=ART7TEDEST 7.4PEEN

Gretna, Louisiana Code of Ordinances. Chapter 10 Article Section 10-198. City of https://library.municode.com/la/gretna/codes/code of ordinances?nodeld=COOR\_CH10BUBURE\_ARTVPLGACO\_DIV1GE\_S10-198PRAGHEANDOTEQWIFIFEADPRLI

City of Zachary, Louisiana Unified Development Code. Article 2 Section 2.4 Exceptions to Residential Lot Standards. https://www.cityofzachary.org/uploads/files/UDC 8-7-2020v.pdf

11 "Stand-by Generator Install Guidelines." St. Tammany Parish. Updated January 2022. https://www.stpgov.org/departments/permits-

and-inspections

<sup>12</sup> Fairfax Virginia Ordinance. 2D. Setback County, Zoning Article Section Regulations. https://online.encodeplus.com/regs/fairfaxcounty-va/docviewer.aspx?secid=911&keywords=hvac%27s%2Chvacs%2Chvacs%27%2Chvac#secid-911

Hillsborough County, FL Development Services. Permit and Inspection Requirements: Residential Backup Generator. https://www.hillsboroughcounty.org/library/hillsborough/media-center/documents/development-services/permits-andrecords/permits/building-permits/checklists/residential-generator-permit--inspection-requirements.pdf

Arlington County, Virginia Zoning Ordinance. Section 3.2.6. Placement. https://arlingtonva.s3.amazonaws.com/wpcontent/uploads/sites/38/2019/10/ACZO.pdf

15 City of University Park, Texas Zoning Ordinance. Article 5. Section 5.3.12. Air Conditioner Condensing Units and other Mechanical

Equipment.

Table 2. Jurisdiction comparison chart for minimum rear and side yard setbacks

for mechanical equipment.				
Jurisdictions	Rear Yard (Minimum distance from property line)	Side Yard (Minimum distance from property line)	Types of Equipment included	
Fort Lauderdale,			Mechanical	
FL <sup>16</sup>	Five (5) Feet	Five (5) Feet	Equipment*	
Palm Beach			Generators (less than	
County, FL <sup>17</sup>	Five (5) Feet	Three (3) Feet	4 ft in height)	
Bonita Springs, FL <sup>18</sup>	Three and a half (3.5) Feet	Three and a half (3.5) Feet	Mechanical Equipment (for setbacks greater than 7.5 feet)*	
			HVAC units and	
Plainfield, NJ <sup>19</sup>	Three (3) Feet	Three (3) Feet	Generators	
Houston, TX <sup>20</sup>	Two (2) Feet	Two (2) Feet	Generators	
Wilmette, IL <sup>21</sup>	Fifteen (15) Feet	Fifteen (15) Feet	Generators	

<sup>\*</sup>Mechanical Equipment includes but is not limited to heating and cooling apparatus, generators, and pool pumps. Unless otherwise noted.

Considerations for the placement of mechanical equipment include allowing for adequate airflow around equipment and allowing for equipment to be close to gas and electric meters to reduce electrical and gas lines. For HVAC equipment, adequate airflow around the compressor and condenser is necessary. Manufacturers typically recommend anywhere between one (1) and three (3) feet clearance between walls or vegetation, and five (5) feet clearance above the unit.<sup>22</sup> <sup>23</sup> <sup>24</sup> In general, requirements for pool equipment are less stringent, however, allowing for placement close to the primary structure reduces the need to run electrical conduit underground.

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Gity of Fort Lauderdale, Florida Unified Development Code. Article 3. Section 47-19.2 Accessory Buildings, Structures, and Equipment,
General. <a href="https://library.municode.com/fl/fort\_lauderdale/codes/unified\_land\_development\_code?nodeld=UNLADERE\_CH47UNLADERE\_AR\_TIIIDERE\_S47-19ACUSBUST\_S47-19.2ACBUSTEQGE">https://library.municode.com/fl/fort\_lauderdale/codes/unified\_land\_development\_code?nodeld=UNLADERE\_CH47UNLADERE\_AR\_TIIIDERE\_S47-19ACUSBUST\_S47-19.2ACBUSTEQGE</a>

<sup>&</sup>lt;sup>17</sup> Palm Beach County, Florida. Unified Land Development Code. Article 5. Section 1.19 Permanent Generators.

http://www.pbcgov.com/uldc/Article5.htm

18 Bonita Springs, Florida. City of Bonita Springs Community Development. https://cityofbonitaspringscd.org/mechanical-equipment-encroachment/

Gity of Plainfield, New Jersey Municipal Code. Article 9. Section 17:9-24 Buffering and Screening. <a href="https://ecode360.com/34634578">https://ecode360.com/34634578</a>
 City of Houston, TX. Houston Permitting Center. <a href="https://www.houstonpermittingcenter.org/hpwcode1118#about-additional-resources">https://www.houstonpermittingcenter.org/hpwcode1118#about-additional-resources</a>

<sup>&</sup>lt;sup>21</sup> Wilmette, Illinois. Stand-by Generators. <a href="https://www.wilmette.com/download/community">https://www.wilmette.com/download/community</a> development/Generator flyer final.pdf
<sup>22</sup> "Split System Air Conditioners Odyssey ™ - Trane. Accessed November 5, 2021. <a href="https://www.trane.com/content/dam/Trane/Commercial/global/products-systems/equipment/unitary/split-systems/Small%20Splits/Air%20Conditioners/18-AC98D1-5-EN.pdf">https://www.trane.com/content/dam/Trane/Commercial/global/products-systems/equipment/unitary/split-systems/Small%20Splits/Air%20Conditioners/18-AC98D1-5-EN.pdf</a>

<sup>23 :,</sup> Laurie says, Megan Earl says : Maytag HVAC says : Kairi Gainsborough says : Braden Bills says : Jalu Sakti says : Jade Brunet says: et al. "Air Conditioner Placement Tips." Maytag HVAC, May 12, 2016. https://www.maytaghvac.com/blog/air-conditioner-placement-tips/

<sup>&</sup>lt;sup>24</sup> Editor, Online. "Where Are the Best Places to Install Your Split AC Unit?" Berkeley Heating & Air Conditioning, September 14, 2016. <a href="https://berkeleyheating.com/blog/where-are-the-best-places-to-install-your-split-ac-unit">https://berkeleyheating.com/blog/where-are-the-best-places-to-install-your-split-ac-unit</a>

## Setback Restrictions in Jefferson Parish

Currently, the Code does not include general setback requirements for mechanical equipment. However, certain provisions have been applied in practice. Lack of clear requirements may add confusion over requirements may delay or lengthen the review process.

As the zoning regulations are currently interpreted by the Department of Inspection and Code Enforcement (ICE), mechanical equipment is not currently allowed within the interior required side yard setbacks of residential districts. This interpretation is based on Sec. 40-742 of the Comprehensive Zoning Ordinance, which states, (a) Power plants, heating and refrigerating plants, or apparatus or machinery which are accessory to permitted uses in the S-1, Suburban District and in the R-1, R-2, RR-3 and R-3, Residential Districts shall be permitted in these districts only if so placed and operated to cause the least inconvenience to owners and tenants of adjoining property."

Exceptions are provided for certain buildings, structures, and equipment. Certain exceptions apply to certain accessory buildings and structures. For accessory buildings, for example, the building must be no closer than three (3) feet from the property line (Sec. 33-5.3.2). Accessory buildings or structures permitted in a required rear or side yard shall also not exceed thirteen (13) feet in height (Sec. 33-5.3.2). Additional provisions apply to elevated homes.<sup>25</sup>

For homes that have been elevated, Parish regulations allow for projections, including mechanical equipment to be set back at least two (2) feet measured from the exterior of

the stair or ramp to the nearest side lot line and at least one (1) side yard area shall maintain at least three (3) feet of unobstructed access from the nearest side lot line (Sec. 40-738).

Mechanical equipment can be located within the buildable area and required rear yard

Table 3. Setback requirements for Residential Zoning Districts

	Smaller Lot Districts					Larger	Lot District	s	
	R-1A		R-2	R-3	RR-3	R-1B	R-1C	R-1D	S-1
Min. Lot Area (ft²)	5,000	1F: 4,000	2F: 5,000	700-4,000 per family	6-8,000	7,200	12,000	20	,000
Avg. Lot Width (ft.)	50	40	O (1F)	N/A	60	60	80	1	00
Avg. Depth	100	7:	5 (1F)	N/A	100	120	150	2	00
Front	20	20		20	25	25	30	:	35
Rear	20% depth (15-25)	20% de	pth (15-25)	20% depth (15-25)	20	15	20	:	25
Side	5, 10 corner side	5, 10 corner side		20% width (5- 15), plus bulk plane for buildings greater than 35ft. in height	7.5	7 <sub>2</sub> , 10 corner side	10 <sub>2,3</sub>	15	2,3,4

<sup>&</sup>lt;sup>25</sup> For homes that have been elevated, Parish regulations allow for projections, including mechanical equipment to be set back at least two (2) feet measured from the exterior of the stair or ramp to the nearest side lot line and at least one (1) side yard area shall maintain at least three (3) feet of unobstructed access from the nearest side lot line (Sec. 40-738 Jefferson Parish Code of Ordinances).

4 If lot width is 70 to less 90 ft., R-1C side yard shall apply

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as close as 3 ft. from the property line. The existing setback requirements in the Parish vary by lot size with larger lots having larger setbacks and vice versa (Table 3).

Proposed Approach to Setbacks and Other General Requirements

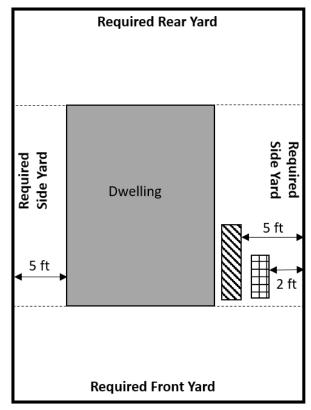
## Residential (One- to Four-Family Dwellings)

The Planning Department is proposing specific setback requirements for generators and other types of mechanical equipment located on 1-, 2-, 3- and 4-family residential sites. As proposed, any type of mechanical equipment:

- Front Yard. Shall not be located in the required front yard.
- Rear Yard. May be located in the required rear yard at least three (3) feet from the
  property lines provided that the mechanical equipment shall not obstruct any
  clear vision area.

Upon further review and discussion with various stakeholders, Planning has updated its recommendation regarding generators and mechanical equipment in the required side yard:

- Mechanical equipment may be located in the required side yard, provided that:
  - Generators shall be set back at least five (5) feet from any side property line. For corner lots, generators shall be located at least five (5) feet from the property line abutting the side street and shall not obstruct any clear vision area (see Figure 7).
  - Any other type mechanical equipment shall be set back at least two (2) feet from any side property line, provided that at least one (1) side yard area shall maintain at least five (5) feet unobstructed access from the nearest side lot line and the mechanical equipment shall obstruct any clear vision area (See Figure 7).



Generator

Other Mechanical Equipment

Figure 7. Proposed Side Yard Setback Restrictions for Mechanical Equipment (Not to Scale)

Planning is proposing a lesser setback for certain types of mechanical equipment, except for generators.

Other types of mechanical equipment, like pool equipment or air conditioning units, do not pose the same life safety risk as generators, thus requiring a smaller side yard setback, a minimum of two (2) feet from the side property line is appropriate and that at least one (1) side yard area shall maintain at least five (5) feet of unobstructed access from the nearest side lot line.

The updated recommendation is consistent with existing exceptions for homes that have been elevated in the Code of Ordinances. Sec. 40-738 allows for projections, including mechanical equipment to be set back at least two (2) feet measured from the exterior of the stair or ramp to the nearest side lot line and at least one (1) side yard area shall maintain at least three (3) feet of unobstructed access from the nearest side lot line.

The updated recommendation is also consistent with other communities reviewed in that:

- Of the communities reviewed, most require mechanical equipment to be located between two and ten feet from the side lot line.
- At least one community evaluated, Newport Beach, CA requires at least one setback be entirely clear of any protrusions or equipment to ensure accessibility to the rear of the property.<sup>26</sup>

Planning is maintaining the minimum five foot required side yard setback for generators for the following reasons:

- Several of the communities reviewed require a 5 ft. minimum side yard setback for mechanical equipment and generators (Table 2 and 5).
- As explained further in this analysis section, there are additional distance requirements specified in the manufacturer specifications and applicable codes related to life safety and generators that need to be taken into consideration when establishing appropriate zoning setbacks.

This approach will likely still trigger a side yard setback variance for many sites located in the smaller lot zoning districts: R-1A, R-1MH, R-2, R-3, R-1TH, and R-1CO. This restriction is intended to address potential concerns from abutting neighbors that may directly impacted by the installation of a generator closer than 5 ft. from a shared side property line.

The Board of Zoning Adjustments (BZA) reviews and issues variances to setback standards. Variance requests require notification to property owners within 100 ft., which includes those properties that may be directly impacted by the variance request. The BZA process provides notification mechanism and a venue for those property owners that may be impacted by a generator variance request to voice concerns regarding the proposed request.

This approach also allows some greater flexibility for the larger lot zoning districts like the R-1B, R-1C, R-1D, and S-1 zoning districts where the required side yard setback requirements range from 7 ft. to 15 ft., which are larger than 5 ft. Property owners in these zoning districts will be allowed to locate generators as close as five feet in the required side yard. This new standard addresses HBAGNO's original request.

The Planning Department is proposing to clarify the generators and other mechanical equipment on commercial and multiple-family development sites will have to meet the required setbacks of the underlying zoning district.



<sup>26</sup> "City of Newport Beach Zoning Code." http://www.newportbeachca.gov/Pln/Zoning Code Adopted/Chapter 20.30.pdf

Accessed November

5, 2021.

Planning is also proposing to clarify that roof-mounted mechanical equipment may be installed provided all federal, state, and local fire, safety and building codes, and all other applicable codes are met and that additional screening requirements apply in the Old Metairie Neighborhood Conservation District (OMNCD). Planning is proposing to clarify that mechanical equipment installed on roofs shall not exceed the maximum building height permitted in the base zoning district.

# Additional Requirements for Generators

Distance requirements related to generators are more complex than other types of mechanical equipment. In addition to standard zoning setback requirements, generators have to comply with additional distance restrictions provided in the manufacturer installation specifications, National Fire Protection Association (NFPA) Code, International Mechanical Code and other applicable codes. The distance requirements provided in the supplemental codes address important life safety issues related combustibility and carbon monoxide emissions associated with generators.

# Manufacturer Specifications

Generac, Kohler, and Briggs and Stratton are three generators brands commonly installed in and permitted by Jefferson Parish. Manufacturers all have slightly different requirements and specifications, many have models that are allowed up to eighteen (18) inches from structures because they have fire rated enclosures (Table 4, Exhibit A).

Generac notes that carbon monoxide (CO) can be pulled into structures via small cracks, voids or other openings. The manufacturer recommends verifying that structures are properly caulked and sealed.<sup>27</sup> In addition to abiding by NFPA requirements, Generac states that Make up air systems, or mechanical and gravity outdoor air intake openings for HVAC supply air systems, must be a minimum of ten (10) feet from any portion of a generator.<sup>28</sup> Generac, one of the manufacturers for the area, requires at least a three (3) ft. of clearance for general maintenance.

The below image (Figure 8) is specific to Generac's specifications. In doing the measurements, Code has concluded that in order to place these generators in a side yard and still meet the mandated specifications, the side yard will have to be a minimum 6.5-foot side yard.

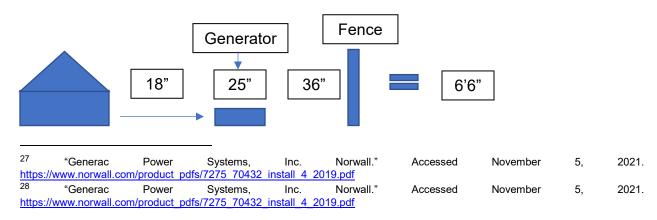


Figure 8. Generac specification diagram

Kohler has the same five (5) feet requirement for proximity to openings, and requires that furnace and other similar intakes are at least ten (10) feet from the exhaust end of the generator set. Kohler requires a three (3) foot minimum distance to an occupied structure.<sup>29</sup> Exhaust must be pointed away or parallel to the structure and must be pointed away from play areas, patios, or areas people gather.

Briggs and Stratton note that exhaust from Standby generators must be pointed away or parallel to a building or structure.<sup>30</sup> This includes some models allowed up to eighteen (18) inches from structures. The manufacturer also notes that generators should be placed in areas where winds will carry exhaust away from nearby structures.<sup>31</sup> Exhaust must be directed away from windows, doors, ventilation intakes, soffit vents, crawl spaces, open garage doors or other openings.

	Table 4. Examples of Manufacturer's Specifications				
Manufacturer	Distance from Structure	Distance from Windows, Doors, Any Wall Openings, or Vents	Overhe ad Clearan ce	Trees, Shrubbery, and Vegetation Spacing	
Generac	18 inches	Air intake vents must be 10 feet from the generator enclosure	5 feet	3 feet	
Kohler	3 feet	5 feet from exhaust end of the set (10 feet for furnace and other similar air intakes)	N/A	4 feet from exhaust end	
Briggs and Stratton	18 inches, 5 feet from exhaust outlet	5 feet	5 feet	5 feet from exhaust outlet	

Pursuant to Sec. 8-1-100 of Chapter 8, Buildings and Building Regulations, Jefferson Parish has adopted the International Mechanical Code as part of the Building and Related Construction Codes for unincorporated Jefferson Parish. The International Mechanical Code mandates compliance with the manufacturer's specifications for the installation of generators. As such, the Department of Inspection and Code Enforcement is required to

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<sup>&</sup>lt;sup>29</sup> "Kohler Power Systems 15RESA, 30 RESA." n.d. Accessed November 5, 2022. http://www.kohlerpower.com/onlinecatolog/pdf/tp6725.pdf.

<sup>&</sup>lt;sup>30</sup> "Briggs & Stratton Installation and Start-up Manual Stand-by Generator System." n.d. Accessed November 5, 2022.

https://www.norwall.com/product\_pdfs/8023\_40517\_instl\_2015.pdf.

31 "Briggs & Stratton FORTRESS Series Installation and Operational Manual | ManualsLib." n.d. Accessed November 5, 2022. https://www.manualslib.com/manual/1725177/Briggs-And-Stratton-Fortress-Series.html?page=10#manual.

ensure that the proposed location of generators to be located within unincorporated Jefferson Parish complies with the specifications for the respective manufacturer.

# Other Applicable Codes

In addition to the manufacturer specifications, generators Jefferson Parish follows the manufacturer specifications as well as the National Fire Protection Association (NFPA) related to generator placement.

Chapter 37. Section 4.1.4, Engines Location Outdoors: Engines, and their weatherproof housings if provided, installed outdoors shall be located at least five (5) feet (1.52 m) from openings in walls and at least five (5) feet (1.52 m) from structures having combustible walls. A minimum separation shall not be required where the following conditions exist:

- 1. The adjacent wall of the structure has a fire resistance rating of at least one hour.
- 2. The weatherproof enclosure is constructed of non-combustible materials and it has been demonstrated the ta fire within the enclosure will not ignite combustible materials outside the enclosure.

# Jurisdiction Comparison: Generator Distance Requirements

In determining where generators should be placed on residentially zoned properties in Jefferson Parish, a variety of factors should be considered. These include potential hazards such as noise, pollution, and emergency access, as well as practical and aesthetic issues such as proximity to neighboring properties and to existing meters, gas, electric and water lines, types of platforms, as well as cost constraints for installation. Other considerations include prevailing winds, and the proximity to other carbon monoxide (CO) producing generators or similar equipment. While manufacturers have specific requirements, individual sites will have unique conditions that require assessment.

Jefferson Parish evaluated the development regulations of 13 different jurisdictions with specific setback restrictions, other distance requirements, and additional standards for generators apart from the manufacturer specifications (Table 5). Some jurisdictions limit the number of generators per lot to one.<sup>32</sup>

St. Tammany Parish addresses the above referenced concerns by requiring carbon monoxide detectors indoors whenever a Standby generator is installed, and requiring crawl spaces to be sealed off to prevent the gas from entering beneath homes.<sup>33</sup> Other communities require that generator exhaust be pointed upwards and away from neighboring properties to the extent possible.<sup>34</sup> Some others state that generators must

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<sup>&</sup>lt;sup>32</sup> "Article 5 Supplementary Standards." Article 5 – Supplementary Standards – ULDC PBC. Acessed November 5, 2021. http://www.pbcgov.com/uldc/Article5.htm# Toc70329329

<sup>33 &</sup>quot;Standby Geneator Install Guidelines – St. Tammany Parish, Louisiana." Accessed 5 November 2021. Generator Install Guidelines.pdf (stpgov.org)

<sup>34 &</sup>quot;Latest Town Updates." Lauderdale. Accessed November 5, 2021. <a href="https://www.lauderdalebythesea-fl.gov/DocumentCenter/View/116/Residential-Generator-PDF">https://www.lauderdalebythesea-fl.gov/DocumentCenter/View/116/Residential-Generator-PDF</a>

be in areas that will have minimal impact on neighboring properties.<sup>35</sup> <sup>36</sup> Amherst, NY, for example, requires that generators not be located so that exhaust can collect near, or be drawn into occupied buildings. The language in the case of Amherst, is left somewhat ambiguous as to what a safe distance is (Table 5).<sup>37</sup>

Table 5. Jurisdiction comparison chart for minimum setbacks and additional for generators.					
	Setbacks Distance to				
Parish/County/City	Rear	Side	Structures including openings		
Broward County, FL <sup>38</sup>	N/A	N/A	5 ft. from openings in walls, 5 ft. from structure exhaust output 10 ft. from structure		
Miami-Dade County, FL <sup>39</sup>	5 ft.	Interior side – 3 ft. in residential, <b>5 ft.</b> in Estate, Agricultural, and Interim districts Side St. – behind the side street building line, no closer than 10 ft.	Exhaust output 10 ft. from wall openings (windows, doors, exhaust fans, appliance vents, etc.)		
Indian River County, FL <sup>40</sup>	Located within 5 ft. of building: 10 ft. from property line. Located within 5 ft. of building and applicable to building and fire codes: 5 ft. from property line. For lot of record (less than 70ft. wide):	Located within 5 ft. of building: 10 ft. from property line. Located within 5 ft. of building and applicable to building and fire codes: Within 5 ft. from property line. For lot of record (less than 70 ft.	N/A		

<sup>&</sup>lt;sup>35</sup> Document Center – the woodlands township – civicengage. Accessed November 5, 2021. <a href="https://www.thewoodlandstownship-tx.gov/DocumentCenter/View/4042/The-Woodlands-Residential-Development-Standards-2022?bidld="https://www.thewoodlandstownship-tx.gov/DocumentCenter/View/4042/The-Woodlands-Residential-Development-Standards-2022?bidld="https://www.thewoodlandstownship-tx.gov/DocumentCenter/View/4042/The-Woodlands-Residential-Development-Standards-2022?bidld="https://www.thewoodlandstownship-tx.gov/DocumentCenter/View/4042/The-Woodlands-Residential-Development-Standards-2022?bidld="https://www.thewoodlands-2022.bidld="https://www.thewoodlands-2022.bidld="https://www.thewoodlands-2022.bidld="https:

<sup>&</sup>lt;sup>36</sup> Town of Amherst, NY. Accessed November 5, 2021. <a href="https://www.amherst.ny.us/pdf/building/rs/rs">https://www.amherst.ny.us/pdf/building/rs/rs</a> homegenreq.pdf

<sup>&</sup>lt;sup>37</sup> Town of Amherst, NY. Accessed November 5, 2021. <a href="https://www.amherst.ny.us/pdf/building/rs/rs">https://www.amherst.ny.us/pdf/building/rs/rs</a> homegenreq.pdf

<sup>&</sup>lt;sup>38</sup> "Minimum Code Requirements For Permanent Residential Type Stand-by Generators." Broward County. G:\SHARED\Policies&Procedures\2006\BRAPolicies\06-03\Pol06-03Revised1-9-20145.doc

<sup>&</sup>lt;sup>39</sup> "Miami-Dade County Checklist For Permanent Installation of Generators." Miami-Dade County Building Department. <a href="https://www.miamidade.gov/building/home.asp">www.miamidade.gov/building/home.asp</a>

<sup>&</sup>lt;sup>40</sup> "Indian River County, FL Code of Ordinances." <a href="www.library.municode.com/fl/Indian\_river\_county/codes/code\_of\_ordinaces">www.library.municode.com/fl/Indian\_river\_county/codes/code\_of\_ordinaces</a>

Table 5. Jurisdiction comparison chart for minimum setbacks and additional for generators.				
Setbacks Distance to				
Parish/County/City	Rear	Side	Structures including openings	
	no closer than 2.5 ft. from property line by applicable building and fire code.	wide): no closer than 2.5 ft. from property line by applicable building and fire code.		
Collier County, FL <sup>41</sup>	10 ft. (waterfront), 5 ft. (non-waterfront)	1, 2, 4, 10 ft. (depends on setback of structure)	Spacing from structure follows manufacturer's requirements Distance from windows, soffit vent, eaves to the dwelling, shrubs, and trees: 5 ft.	
West Baton Rouge Parish, LA <sup>42</sup>	5 ft. clearance from any structure and property lines (unless manufacturer states otherwise)	5 ft. clearance from any structure and property lines (unless manufacturer states otherwise)	5 ft. clearance from any structure and property lines (unless manufacturer states otherwise)	
St. Charles Parish, LA <sup>43</sup>	5 ft.	5 ft.	N/A	
St. Tammany Parish, LA <sup>44</sup>	3 ft. front and end clearance, 15 ft. from a neighboring house	3 ft. front and end clearance, 15 ft. from a neighboring house	5 ft., 3 ft. if wall is one-hour protected, 18 inches if one-hour protected and the home is sprayfoam insulated. 5 ft. from openings	
City of Fort Lauderdale, FL <sup>45</sup>	5 ft. to the property lines, 10 ft. to the water	<b>5 ft. to the property lines,</b> 10 ft. to the water	Exhaust output 10 ft. from openings	

<sup>&</sup>lt;sup>41</sup> "Initial Submittal Requirements – Mechanical" Collier County. ISR Emergency Generator 6.30.2021

<sup>42 &</sup>quot;Initial Requirements for Generator Permits." WBR Parish Government.
43 "Trade Permit Application." St. Charles Parish Department Planning and Zoning. P:\Applications\Permit\_Apps\TRADEPERMITrev20110523.doc

<sup>44 &</sup>quot;Stand-by Generator Install Guidelines." St. Tammany Parish. Updated January 2022. https://www.stpgov.org/departments/permitsand-inspections

45 "Emergency Generators." City of Fort Lauderdale.

Table 5. Jurisdiction comparison chart for minimum setbacks and additional for				
generators.				
		Setbacks	Distance to	
Parish/County/City	Rear	Side	Structures including openings	
City of Palm Beach, FL <sup>46</sup>	N/A	N/A	5 ft. from openings, 5 ft. from combustible walls	
City of Houston, TX <sup>47</sup>	2 ft.	2 ft.	5 ft.	
City of Pearland, TX <sup>48</sup>	N/A	N/A	Exhaust output 5 ft. from openings	
City of Alexandria, VA <sup>49</sup>	N/A	N/A	Generator manufacturer Requirements	
County of San Diego, CA <sup>50</sup>	N/A	N/A	Center of generator set shall be located no farther than 5 ft. from enclosure wall nearest to the affected property line	

<sup>&</sup>lt;sup>46</sup> "New Generator Permit Application Checklist." City of Palm Beach Gardens Building Division. <u>www.pbgfl.com</u>
<sup>47</sup>. "Building Code Enforcement Residential Stand-by Generator Permit & Inspection Guide." Houston Public Works. https://www.houstonpermittingcenter.org

48 "Generators." City of Pearland, TX. https://www.pearlandtx.gov/departments/community-development/permits/generators

<sup>&</sup>lt;sup>49</sup> "Checklist For Stand-By Generators." City of Alexandria, Virginia, Alexandria Permit Center. <u>www.alexandriava.gov/code</u>

<sup>&</sup>lt;sup>50</sup> "Requirements For Stand-Alone Generators." County of San Diego, Planning & Development Services Building Division. http://www.sdcpds.org

## Department of Inspection Code Enforcement Policies and Procedures

The Department of Inspection and Code Enforcement has listed additional requirements generator placement. Generators must be 10 ft. from soffit vents, eave vents fresh air intakes and /or exhaust vents, 5 ft. from operable doors and windows. 5 ft. from a patio covering, carport, or other overhand projection (Figure 9). The department is also doing a pre-inspection before the generator is installed (Figure 10).

\*Generators in close proximity to structures shall be located greater than ten feet (10') from soffit vents, eave vents or fresh air vents and/or exhaust vents (documentation from the CDC indicates that generators should be located "far" from windows or other openings and vents. Generators shall be located greater than 10 feet (10') from patio coverings, carports or other overhang projections where a contiguous path to a vent(s) exists.

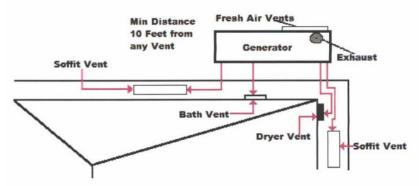


Figure 9. Additional distance requirements to structures for generators. Jefferson Parish permit application for generators.

In 2022, the Department of Inspection and Code Enforcement established a new procedure for handling generator permits: Applicants are required to submit an application and acknowledges the following: the installation will follow all manufacturers recommended installation instruction, the installation will follow the NFPA 37 code and the current State Adopted IMC. Once a generator permit is accepted by the Parish and reviewed, a pre-inspection is conducted by a Building Inspector to verify the Site Plan is permittable according to all applicable code requirements related to life safety are met, including NFPA 37, IMC/Fuel Gas and the manufacturer installation requirements (Figure 10). The installation will also include the verification of a carbon monoxide detector/alarm.

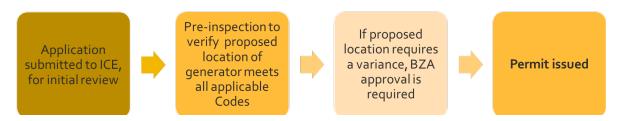


Figure 10. Department of Inspection and Code Enforcement Pre-inspection Procedures (established 2022)

Planning is not proposing any changes to existing distance requirements to structures and openings referenced in the manufacturer specifications, other applicable codes, and or permitting procedures established by the Department of Inspection and Code Enforcement. Instead, Planning is proposing to clarify that generators shall be installation requirements according to Manufacturer's specifications, federal, state, and local fire, safety and building codes, and all other applicable codes, and Department of

Inspection and Code Enforcement policies and procedures can be maintained without additional references in the Code of Ordinances. This approach will allow necessary flexibility in the Jefferson Parish Code of Ordinances if the manufacturers or other agencies update distance requirements to structures and openings.

# Life Safety

Generators produce exhaust that contains carbon monoxide. This dangerous gas can cause injury and death for those exposed. For these reasons, generators must be placed in locations that are well-ventilated and away from all openings in a structure.

The Consumer Product Safety Commission (CPSC) noted that there were 880 fatalities from 655 incidents associated with generators between 2005 and 2017. This includes six (6) fatalities from four incidents from permanently installed stationary generators. The CSPC report notes the following about these cases: *In 2011, three incidents involved stationary generators: one incident classified as a Class II, Single Cylinder (two deaths), and two incidents of unknown classification (one involving two deaths and the other involving a single death). In 2017, there was an incident involving a stationary generator of unknown engine classification. These numbers indicate that incidents with Standby generators are rare, but that they do still occur.<sup>51</sup>* 

Many of the incidences associated with generators occur during power outages associated with hurricanes and tropical storms, of which Jefferson Parish is uniquely vulnerable. There were 51 incidences and 71 deaths that occurred during power outages associated with hurricanes and tropical storms from 2005 to 2017.<sup>52</sup> The report does not decipher what types of generators these incidents were associated with.

The CPSC report also notes that seven (7%) percent of fatalities occurred when a portable generator was located outside the victim location. In these cases, the generators were too close to windows, air conditioners or other openings, or were placed outside the victim's location but still within a confined space.<sup>53</sup> Of all the carbon monoxide deaths examined in the CPSC report, alarms were only present in 28 of 274 incidents, or 10.2% of the time when that information was available.<sup>54</sup>

Despite the above research indicating cases involving stationary generators are rare, there have been cases of dangerous CO buildup in homes with these stationary units in southern Louisiana in the aftermath of Hurricane Ida, raising concerns about the safety

<sup>&</sup>lt;sup>51</sup> "Generators and Oedt Fatalities 2018 – Cpsc.gov." Accessed November 5, 2021. <a href="https://www.cpsc.gov/s3fs-public/Generators%20and%20OEDT%20Fatalities%202018%20FINAL.pdf?EHbNEzxP3czGisZg9">https://www.cpsc.gov/s3fs-public/Generators%20and%20OEDT%20Fatalities%202018%20FINAL.pdf?EHbNEzxP3czGisZg9</a> BY2b7wPgMJltZu

<sup>52 &</sup>quot;Non-Fire Carbon Monoxide Deaths Associated with the Use of Consumer..." Accessed November 5, 2021. https://www.cpsc.gov/s3fs-public/Non-Fire-Carbon-Monoxide-from-Engine-Driven-Generators-2005-2016-June%202017.pdf?FL5ZFHu050hLH NGRwJtpM2EE4JHeveV

<sup>&</sup>lt;sup>53</sup> "Non-Fire Carbon Monoxide Deaths Associated with the Use of Consumer..." Accessed November 5, 2021. <a href="https://www.cpsc.gov/s3fs-public/Non-Fire-Carbon-Monoxide-from-Engine-Driven-Generators-2005-2016-June%202017.pdf?FL5ZFHu050hLH NGRwJtpM2EE4JHeveV">https://www.cpsc.gov/s3fs-public/Non-Fire-Carbon-Monoxide-from-Engine-Driven-Generators-2005-2016-June%202017.pdf?FL5ZFHu050hLH NGRwJtpM2EE4JHeveV</a>

<sup>&</sup>lt;sup>54</sup> "Non-Fire Carbon Monoxide Deaths Associated with the Use of Consumer..." Accessed November 5, 2021. <a href="https://www.cpsc.gov/s3fs-public/Non-Fire-Carbon-Monoxide-from-Engine-Driven-Generators-2005-2016-June%202017.pdf?FL5ZFHu050hLH NGRwJtpM2EE4JHeveV">https://www.cpsc.gov/s3fs-public/Non-Fire-Carbon-Monoxide-from-Engine-Driven-Generators-2005-2016-June%202017.pdf?FL5ZFHu050hLH NGRwJtpM2EE4JHeveV</a>

of this equipment.<sup>55</sup> <sup>56</sup> These instances prompted the Louisiana State Fire Marshal to issue a warning after Ida about Standby generator usage, urging residents with Standby generators to allow the generators to take a break once or twice a day to clear any exhaust that may build up around a structure.<sup>57</sup>

Between August 29, 2021 and September 20, 2021, there were seven hundred and twelve (712) calls made to the Jefferson Parish Department potentially relating to generators (JP Fire Dept). Of these, twenty-four (24) were structure fire calls related to generators, and six hundred and eighty-eight (688)were investigation calls related to carbon monoxide, natural gas leaks, and/or generators. The tallies are not parsed out between standby generators and portable generators.

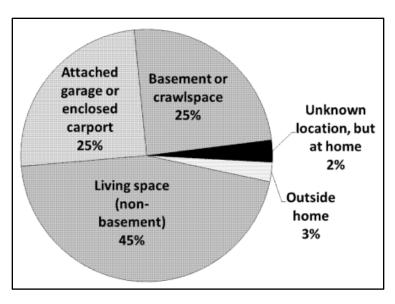


Figure 11. Incidents involving CO in fixed structures, by location of **portable** generator (2004 to 2014) Source: <u>Federal Register.</u>

Detectors and alarms exist that produce to avoid dangerous situations. There are three types of detectors and alarms: hard-wired, plug-in, and battery-operated.

Table 6 provides examples of other State laws regarding carbon monoxide.

Table 6. State Laws regarding Carbon Monoxide Detectors <sup>58</sup>					
State	Statute	Summary			
California	Cal. Health & Safety Code § 1569.311	Requires the owner of every single- family dwelling, hotel and motel dwelling units, intended for human occupancy to maintain a carbon monoxide device			
Florida	Fla. Stat. § 553.885 – Carbon monoxide alarm	Requires that every building for which a building permit is issued for new			

<sup>&</sup>lt;sup>55</sup> Gatto, Meg. "Carbon Monoxide Worries Post-Ida Prompt Officials to Take Action." <a href="https://www.fox8live.com/2021/11/02/carbon-monoxide-worries-post-ida-prompt-officials-take-action/">https://www.fox8live.com/2021/11/02/carbon-monoxide-worries-post-ida-prompt-officials-take-action/</a>

<sup>&</sup>lt;sup>56</sup> Clark, Gerald. "\*Home Generator Safety Alert\*." Clark Law Firm. August 7, 2020. <a href="https://www.clarklawnj.com/generator-safety-issue-alert/">https://www.clarklawnj.com/generator-safety-issue-alert/</a>

<sup>&</sup>lt;sup>57</sup> Staff, WAFB. "La. Officials Update Generator Safety Message Following IDA Due to Rising Carbon Monoxide Poisonings." <a href="https://www.wafb.com/2021/09/04/state-fire-marshals-office-updates-generator-safety-message-following-hurricane-ida/">https://www.wafb.com/2021/09/04/state-fire-marshals-office-updates-generator-safety-message-following-hurricane-ida/</a>

<sup>&</sup>lt;sup>58</sup> "Legislative News, Studies and Analysis | National Conference of State Legislatures." n.d. <u>www.ncsl.org</u>.

State	Statute	Summary
	required	construction on or after July 1, 2008, and having a fossil-fuel-burning heater or appliance, a fireplace, or an attached garage shall have an approved operational carbon monoxide alarm installed within 10 feet of each room used for sleeping purposes
Georgia	Sec. R313.4.1 of Ga. State Minimum Standard One and Two Family Dwelling Code	Requires carbon monoxide detectors to be installed in general sleeping areas in all new one – and two-family homes and townhomes of three stories or less
Illinois	43 III. Comp. Stat. § 135/ Carbon Monoxide Alarm Detector Act	Requires that every dwelling unit shall be equipped with at least one approved carbon monoxide alarm in an operating condition within 15 feet of every room used for sleeping purposes. Every structure that contains more than one dwelling unit shall contain at least one approved carbon monoxide alarm in operating condition within 15 feet of every room used for sleeping purposes.
Maryland	Md. Code Ann., Pub. Safety § 12-1101 to 1106 – Carbon Monoxide Alarms	Requires the installation of carbon monoxide alarms outside of each sleeping area or within a certain distance of carbon monoxide-producing equipment within certain dwellings
Minnesota	Minn. Stat. § 299F.50 to .51  – Carbon Monoxide Alarms	Requires that every single-family dwelling and every dwelling unit in a multifamily dwelling must have an approved and operational carbon monoxide alarm installed within ten feet of each room lawfully used for sleeping purposes
New York	N.Y. Exec. Law § 378 – Standards for New York state uniform fire prevention and building code	Requires New York Fire Prevention and Building Code to adopt standards for installation of carbon monoxide detectors requiring every one- and two-family dwellings, any condominiums, or any multiple dwelling constructed or for sale shall have installed an operable carbon monoxide detector. Carbon monoxide detectors required by this section are required only where the dwelling unit has

State	Statute	Summary
		appliances, devices, or systems that may emit carbon monoxide or has an attached garage.
West Virginia	W. Va. Code § 29-3-1a – Smoke detectors in one- & two-family dwellings; carbon monoxide detectors in residential units; penalty	Requires carbon monoxide detectors be installed in newly constructed residential units with a fuel-burning heating or cooking device; all rooms in which a person will be sleeping that are adjoining to and being directly below and above all areas or rooms that contain permanently installed fuel-burning appliances and equipment that emit carbon monoxide as a byproduct of combustion located within all multi-family, boarding houses, dormitories, elderly care facilities, adult or child care facilities, one- and two-family dwellings that or rented/leased, hotels, and motels

Currently, Louisiana requires carbon monoxide detectors for newly built homes, but a new bill has been approved "To amend and reenact R.S. 40: 1581 (A) through (D) and to enact R.S. 40: 1581 (E) and (F), relative to carbon monoxide detectors in one- or two-family dwellings; to provide for a long-life, sealed battery carbon monoxide detector in certain dwellings; to provide for applicability; and to provide for related matters." <sup>59</sup> The law went into effect August 1, 2022, but only applies to homes on and after January 1, 2023. This law requires at the time of sale or lease, a dwelling shall contain, at minimum, an operable carbon monoxide detector.

The Planning Department is proposing to require the v-Verification of a carbon monoxide alarm/detector with the installation of a whole house generator in accordance with will be implemented through the new Louisiana state law and does not need to be codified in the Code of Ordinances. This new State law standard will help address life safety concerns regarding whole house standby generators.

<sup>&</sup>lt;sup>59</sup> Hilferty, Representatives, and S Blanc. n. d. Accessed July 5, 2022. https://www.leqis.la.gov/leqis/ViewDocument.aspx?d=1289519.

The Planning Department is also proposing to put limitations regarding life safetv variances for generators. The Board of Zoning Adjustments (BZA) or Parish Council shall not grant a zoning variance for the installation of a generator that does not meet all federal. state and local fire, safety and building codes, and all other applicable codes, unless the Board of Standards and **Appeals** (BSA) grants variance to technical requirements. Any variance to technical codes will have to be reviewed and approved by the BSA before any zonina variances can be heard before the BZA or in some cases the Council. This will allow the BSA, which is a technical board to potential life safety review issues, before zoning exceptions considered are (Figure 12).

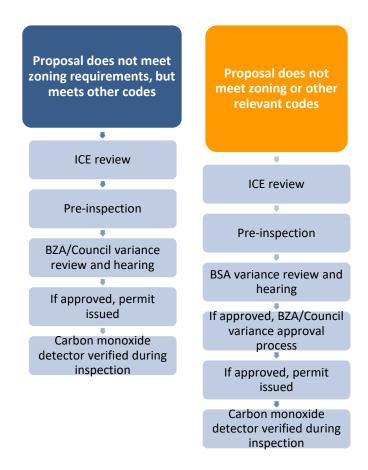


Figure 12. Proposed Variance Processes for Generators

## **Definitions**

The term *mechanical equipment* is not currently defined in the Jefferson Parish Code of Ordinances. By opting to define *mechanical equipment*, the Parish will be consistent with other jurisdictions that regulate this equipment through an umbrella term. The following summarizes components of mechanical equipment and what other communities include in their definitions.

Some jurisdictions have opted to define *mechanical equipment* in their zoning regulations while others have referenced mechanical equipment as encompassing multiple mechanical elements. Others just reference the particular mechanical device or equipment. The Planners Dictionary, a resource that collects best practices for planners, provides an umbrella definition for *mechanical equipment*. In Louisiana, New Orleans does not define mechanical equipment, however, they do refer to it. Shreveport defines mechanical equipment, specifically. Many national jurisdictions also define mechanical equipment (see Tables 7 and 8. For definitions from the Planners Dictionary and select jurisdictions).

Table 7.	Planners	Dictionary	definition	for mecl	hanical	equipment.

# Planners Dictionary

Equipment or devices installed for a use appurtenant to the primary use. Such equipment shall include heating and air conditioning equipment, solar collectors, parabolic antennas, disc antenna, radio, or TV receiving or transmitting antennas, and any power-generating devices. The following equipment or devices are exempt: (A) Private, noncommercial radio and television antennas not exceeding a height of 70 feet above grade or 30 feet above an existing structure, whichever height is greater. No part of such antenna shall be within the yards required by this chapter. A building permit shall be required for any antenna mast, or tower over 50 feet above grade or 30 feet above an existing structure when the same is constructed on the roof of the structure. (B) Parabolic antennas under three feet in diameter. (Ashland, Oregon)

Table 8. Select mechanical equipment definitions from Louisiana and nationally.

Louisiana Jurisdictions	Definition
New Orleans, LA	Mechanical equipment includes but is not limited to heating, ventilating, geothermal energy, and air-conditioning (HVAC) units, swimming pool equipment, and back-up electrical generators <sup>60</sup>
Shreveport, LA	Mechanical equipment includes heating, ventilation, and air conditioning (HVAC) equipment, electrical generators, and similar equipment. 61

<sup>&</sup>lt;sup>60</sup> Article – Comprehensive Zoning Ordinance – City of New Orleans. Accessed November 5, 2021. <a href="https://czo.nola.gov/article/#s21-6-T">https://czo.nola.gov/article/#s21-6-T</a>

<sup>61</sup> Municode Library. Accessed November 5, 2021.

National Jurisdictions	Definition
University Park, TX	Air Conditioner Condensing Units and other Mechanical Equipment: Air conditioner condensing units, swimming pool pumps, power generators and similar mechanical equipment. <sup>62</sup>
Bonita Springs, FL	Mechanical equipment includes heating, ventilating and airconditioning (HVAC) units, swimming pool equipment and back-up electrical generators. It does not include chimneys or oven exhaust systems. <sup>63</sup>
Cary, NC	Mechanical and Utility Equipment: Heating, ventilation, air conditioning, and other mechanical and utility equipment, including but not limited to hoses, pipes, vents, fans, compressors, pumps, and heating and cooling units, ground based electrical transformers, telephone, or cable junction boxes <sup>64</sup>

Staff recommends a broad definition that lumps multiple types of equipment together, recognizing the similar properties and locational requirements for the various types of equipment. Individual components of the definition can be further regulated in certain instances where additional requirements are needed, like for generators. Other forms of mechanical equipment such as tankless water heaters and battery packs have been researched, but since they are attached to the homes and businesses and not mounted to the ground they will not be regulated specifically with this study and have been specifically excluded from the proposed definition.

Based on these criteria, the Planning Department is proposing the following definition for *mechanical equipment* and *generator*:

Mechanical Equipment shall mean any equipment used for mechanical services that include heating, cooling, and ventilation equipment; electrical systems, plumbing, or pool equipment piping; or any sustainable energy systems, and generators (see definition for "generator"), excluding utility meters, gas meters, wall mounted communication interfaces, tankless water heaters, electrical service panels, electrical disconnect devices, above ground tanks, underground tanks, and the necessary conduit piping needed for the wall mounted equipment named herein.

 $<sup>\</sup>underline{\texttt{https://library.municode.com/la/shreveport/codes/unified\_development\_code?nodeld=ART7TEDEST\_7.4PEEN}$ 

University Park, TX. Accessed November 5, 2021 <a href="https://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=universitypark&collection=universityparkzoning&doccode=z2Code=z20000002-42">https://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=universitypark&collection=universityparkzoning&doccode=z2Code=z20000002-42</a>

<sup>63</sup> Community Development Department. Accessed November 5, 2021. <a href="https://cityofbonitaspringscd.org/mechanical-equipment-encroachment/">https://cityofbonitaspringscd.org/mechanical-equipment-encroachment/</a>

<sup>64 &</sup>quot;Cary, NC Laws." American Legal Publishing Corporation. Accessed November 5, 2021. https://codelibrary.amlegal.com/codes/cary/latest/overview#JD 7.2.8

Generator shall mean any permanently mounted standby unit(s) that involve(s) gas or combustible fuel operated machinery used for the purpose of temporarily supplying electricity for human occupancy in residential or non-residential buildings. This does not include portable generators, solar generators, solar panels, wall mounted storage batteries used for backup electrical service, or other similar alternative energy resources.

As a related matter, the Planning Department is proposing to clarify standards that apply to mechanical equipment versus provisions that apply to accessory structures in several zoning districts in Chapter 33 and 40 of the Code of Ordinances.

## CONCLUSION AND STAFF RECOMMENDATION

On March 31, 2021, the Parish Council adopted Resolution No. 137391, which authorized the Planning Department and Planning Advisory Board (PAB) to evaluate, establish, and amend standards and requirements related to mechanical equipment; and provide for related matters. The study was called in a response to a request from the Home Builders Association of Greater New Orleans (HBAGNO) dated March 17, 2021.

Over the course of the study, Staff identified several issues with the regulations related to mechanical equipment. Currently, there are no specific setback provisions or definition for mechanical equipment in the Code. In practice, certain setback exceptions related to accessory structures have been applied to mechanical equipment. In residential zoning districts, mechanical equipment may be located within the buildable area and required rear yard, but not the required side yard. Lack of clear requirements may add confusion over requirements may delay or lengthen the review process.

In addition to zoning setback restrictions, there are other distance restrictions that apply to generator installation that are not addressed or referenced in the Code. No clear restrictions on variances for generators exist currently in Jefferson Parish, even in cases where life safety may be a concern.

The Planning Department worked closely with the Department of Inspection and Code Enforcement to clarify existing standards, policies and procedures related to mechanical equipment permits and solicited input from and made presentations on preliminary findings and recommendations to the Home Builders Association of Greater New Orleans (HBAGNO) and other local agencies, boards, and Parish Councilmembers over the course of the study.

As part of this study, the Planning Department is proposing amendments to the regulations, including establishing definitions related to mechanical equipment and adding clear setback requirements and additional standards and variance limitations for generators **that**. Added development standards for the placement of generators are necessary to protect public health, safety, and welfare of the residents of Jefferson Parish.

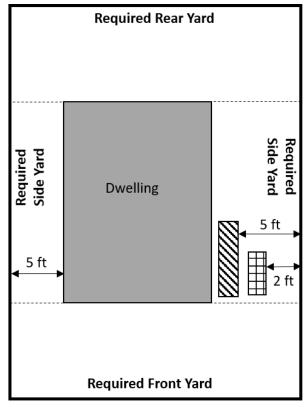
# Mechanical Equipment: Setbacks and Other Requirements

The Planning Department is proposing specific setback requirements for generators and other types of mechanical equipment located on 1-, 2-, 3- and 4-family residential sites. As proposed, any type of mechanical equipment:

- Front Yard. Shall not be located in the required front yard.
- Rear Yard. May be located in the required rear yard at least three (3) feet from the
  property lines, provided that the mechanical equipment shall not obstruct any
  clear vision area.

Upon further review and discussion with various stakeholders, Planning has updated its recommendation regarding generators and mechanical equipment in the required side yard:

- Mechanical equipment may be located in the required side yard, provided that:
  - Generators shall be set back at least five (5) feet from any side property line. For corner lots, generators shall be located at least five (5) feet from the property line abutting the side street and shall not obstruct any clear vision area (see Figure 13).
  - Any other type mechanical equipment shall be set back at least two (2) feet from any side property line, provided that at least one (1) side vard area shall maintain at least five (5) feet unobstructed access from the nearest side lot line mechanical and the shall equipment not obstruct any clear vision area (See Figure 13).



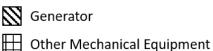


Figure 13. Proposed Side Yard Setback Restrictions for Mechanical Equipment (Not to Scale)

Planning is proposing a lesser setback for certain types of mechanical equipment, excluding generators.

Other types of mechanical equipment, like pool equipment or air conditioning

units, do not pose the same life safety risk as generators, thus requiring a smaller side yard setback, a minimum of two (2) feet from the side property line is appropriate, provided that at least one (1) side yard area shall maintain at least five (5) feet of unobstructed access from the nearest side lot line and the mechanical equipment shall not obstruct any clear vision area.

The updated recommendation is consistent with existing exceptions for homes that have been elevated in the Code of Ordinances. Sec. 40-738 allows for projections, including mechanical equipment to be set back at least two (2) feet measured from the exterior of the stair or ramp to the nearest side lot line and at least one (1) side yard area shall maintain at least three (3) feet of unobstructed access from the nearest side lot line.

The updated recommendation is also consistent with other communities reviewed in that:

- Of the communities reviewed, most require mechanical equipment to be located between two and ten feet from the side lot line.
- At least one community evaluated requires at least one side yard setback be entirely clear of any protrusions or equipment to ensure accessibility to the rear of the property. 65

Planning is maintaining the minimum five foot required setback for generators for the following reasons:

- Several of the communities reviewed require a 5 ft. minimum side yard setback for mechanical equipment and generators (Table 2 and 5).
- As explained further in the analysis section of this report, there are additional distance requirements specified in the manufacturer specifications and applicable codes related to life safety and generators that need to be taken into consideration when establishing appropriate zoning setbacks.

This aligns with the intent of the study by the Home Builders Association of Greater New Orleans (HBAGNO).

The Planning Department recommends clarifying that:

- Mechanical equipment installed on commercial and multiple-family development sites will have to meet the required setbacks of the underlying zoning district;
- Roof-mounted mechanical equipment may be installed provided all federal, state, and local fire, safety and building codes, maximum building height requirements, and all other applicable codes are met; and
- Additional screening requirements apply in the Old Metairie Neighborhood

Zoning of Code." Accessed November 5, 2021. "City Newport Beach http://www.newportbeachca.gov/Pln/Zoning Code Adopted/Chapter 20.30.pdf

# Conservation District (OMNCD).

Jefferson Parish is proposing a 5 ft. minimum side yard setback for mechanical equipment located on one-, two-, three-, and four-family residential sites to simplify and streamline setback requirements for all types mechanical equipment and to take into consideration manufacturer specifications for generators.

Both Planning and the Department of Inspection and Code Enforcement are seeking to provide clarity and reduce the time, effort, and energy spent in navigating the permitting process.

# Additional Requirements for Generators

Generators have additional requirements due to threat of combustibility and carbon monoxide emissions. Aside from zoning restrictions, the National Fire Protection Association (NFPA), other applicable codes (i.e. building codes, mechanical codes, etc.), and other Department of Inspections and Code Enforcement requirements can limit where generators can be installed on a development site and should be referenced in the Code.

Planning is not proposing any changes to existing distance requirements to structures and openings or permitting procedures established by the Department of Inspection and Code Enforcement. Instead, Planning is proposing to clarify that generators shall be installation requirements according to Manufacturer's specifications, federal, state, and local fire, safety and building codes, and all other applicable codes, and Department of Inspection and Code Enforcement policies and procedures can be maintained without additional references in the Code of Ordinances. The Planning Department is also recommending to clarify that the most restrictive installation requirements shall apply. This approach will allow necessary flexibility in the Jefferson Parish Code of Ordinances if the manufacturers or other agencies update distance requirements to structures and openings.

Life safety is a big component when it comes to generators. The State of Louisiana recently passed a law to mandate carbon monoxide detectors be installed in conjunction with the installation of a generator for single- and two-family residential dwellings. Verification of a carbon monoxide alarm/detector with the installation of a whole house generator will be implemented through the new Louisiana state law and does not need to be codified in the Code of Ordinances. This new State law will help address life safety concerns regarding whole house standby generators.

The Planning Department recommends requiring the verification of a carbon monoxide detector with installation of a generator in accordance with the new State legislation.

The Planning Department recommends adding limitations for generator variances. The Board of Zoning Adjustments (BZA) and Parish Council shall not grant a zoning variance for the installation of a generator that does not meet all federal, state and local fire, safety and building codes, and all other applicable codes, unless the Board of Standards and Appeals (BSA) grants a variance to technical code requirements. The proposed additional

levels of review for variance requests will provide safety for not only for the requested property, but the neighboring structures.

#### **Definitions**

The Planning Department recommends the following definitions for *mechanical* equipment and generator.

Mechanical Equipment shall mean any equipment used for mechanical services that include heating, cooling, and ventilation equipment; electrical systems, plumbing, or pool equipment piping; or any sustainable energy systems, and generators (see definition for "generator"), excluding utility meters, gas meters, wall mounted communication interfaces, tankless water heaters, electrical service panels, electrical disconnect devices, above ground tanks, underground tanks, and the necessary conduit piping needed for the wall mounted equipment named herein.

Generator shall mean any permanently mounted standby unit(s) that involve(s) gas or combustible fuel operated machinery used for the purpose of temporarily supplying electricity for human occupancy in residential or non-residential buildings. This does not include portable generators, solar generators, solar panels, wall mounted storage batteries used for backup electrical service, or other similar alternative energy resources.

As a related matter, the Planning Department is proposing to clarify standards that apply to mechanical equipment versus provisions that apply to accessory structures in several zoning districts in Chapter 33 and 40 of the Code of Ordinances.

This recommendation supports the following *Envision Jefferson 2040* goals and objectives:

Investments in structural and green infrastructure manage risk.

Objective 2. Install emergency backup generators at all critical facilities.

Plan Implementation Table. Task 6. Adopt, Administer, and Enforce the State
Uniform Construction Code (PS) "Adopt amendments to the State Uniform
Construction Code as promulgated; enforce building codes to govern construction,
reconstruction, alteration, and repair of buildings and other structures and the
installation of mechanical equipment; and train and educate code officials to
ensure state certification."

The Master Plan states a variety of goals for natural hazard mitigation and reducing future damages from hazards. Reducing risk to life and property from hazards is another goal. Resilience and sustainability are is a major theme throughout the master plan.

• Goal 5. Investments in structural and green infrastructure manage risk.

Objective 2. Install emergency backup generators at all critical facilities.

 Goal 4. Sound development through plans and regulations reduce or eliminate potential hazard impacts.

"Encourage and facilitate the development or upgrading of master or strategic plans, drainage plans, and ordinances for land subdivision, zoning, building construction, fire protection, and floodplain management to address development in hazard areas."

Goals and Objectives for the Land Use Element:

Goal 10.

Objective 6. Promote development and site design that are less vulnerable to damages from flood, wind, subsidence, and other hazards.

To achieve this recommendation, the Planning Department recommends the following text amendments:

- Establish clear setback requirements and other standards for mechanical equipment.
   (#10 and #11)
- Clarify roof-mounted mechanical equipment allowability provided that they meet all federal, state, and local fire, safety and building codes, height requirements, and all other applicable codes. (#10 and #11)
- Clarify that generators shall be installed according to manufacturer's specifications, federal, state, and local fire, safety and building codes, and all other applicable codes, and Department of Inspection and Code Enforcement policies and procedures. (#10 and #11)
- Require verification of carbon monoxide detector with installation per state law. (#10 and #11)
- Create limitations for Board of Zoning Adjustments (BZA) and Parish Council zoning variances for generators. (#10 and #11)
- Add definitions for all types of mechanical equipment. (#12 and #13)
- To delete the subsection and update subsequent subsections of Chapter 40, Article XXXIX. (#14)
- Clarify standards that apply to mechanical equipment versus provisions that apply to accessory structures (#1-#9, #14 and #15)

#### AMENDED ORDINANCE TEXT

Legend: added text deleted text moved text

Staff recommends the following text amendments:

 Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 3. Mixed-Use Base Zoning Districts, Sec. 33-3.51. Old Bucktown Mixed-Use Residential (OBM-1), Sec. 33-3.51.2. Authorized uses, to clarify standards applicable to mechanical equipment and to renumber the standards, to read as follows:

Sec. 33-3.51.2. Authorized uses.

- (a) *Use Matrix*. For the table of authorized uses in this district, see Sec. 33-3.50, Mixed-use base zoning districts use matrix, of this UDC.
- (c) Accessory uses or structures.
  - (1) Accessory uses in a dwelling are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC.
  - (2) Accessory uses or structures are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC.
- (d) *Mechanical equipment*. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.
- (e) Home occupations. Home occupations are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC.
- 2. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 3. Mixed-Use Base Zoning Districts, Sec. 33-3.52. Old Bucktown Mixed-Use Commercial (OBM-2), Sec. 33-3.52.2. *Authorized uses*, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33.3.52.2. Authorized uses.

- (a) *Use Matrix*. For the table of authorized uses in this district, see Sec. 33-3.50, Mixed-use base zoning districts use matrix, of this UDC.
- (c) Accessory uses or structures. Accessory uses or structures are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC.
- (d) Mechanical equipment. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.
- (e) Home occupations. Home occupations are allowed in accordance with Division 1, Specific Uses Standards, of Article 5, Supplemental Conditions, of this UDC.
- 3. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 3. Mixed-Use Base Zoning Districts, Sec. 33-3.53. Fat City Districts, Sec. 33-3.53.3. Authorized uses, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33-3.53.3. Authorized uses.

(a) *Use Matrix.* For the table of authorized uses in these districts, see Sec. 33-3.50, Mixed-use base zoning districts use matrix, of this UDC.

\* \* \*

(c) Accessory buildings, structures, and uses. Accessory buildings, structures, and uses are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC, provided that the accessory building, structure, or use is used or operated by the owner or a tenant in the principle structure.

- (d) Mechanical equipment. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.
- (e) Home occupations. Home occupations are allowed in accordance with Division 1, Specific Uses Standards, of Article 5, Supplemental Conditions, of this UDC.
- 4. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 3. Mixed-Use Base Zoning Districts, Sec. 33-3.54. Town Center Mixed Use District (TCMU), Sec. 33-3.54.2. *Authorized uses*, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33-3.54.2. Authorized uses.

- (a) *Use matrix.* For the table of authorized uses in these districts, see Sec. 33-3.50, *Mixed-use base zoning districts use matrix*, of this UDC.
- (c) Accessory buildings, structures, and uses. Accessory buildings, structures, and uses are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC, provided that the accessory building, structure, or use is used or operated by the owner or a tenant in the principle structure.
- (d) Mechanical equipment. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.
- (e) Home occupations. Home occupations are allowed in accordance with Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC.
- 5. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 3. Mixed-Use Base Zoning Districts, Sec. 33-3.58. Unrestricted Suburban (U-1S), Sec. 33-3.58.3. Authorized uses, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33-3.58.3. Authorized uses.

- (a) *Use Matrix*. See Table 33-3.50-1, Authorized Land Uses for Mixed-Use Base Zoning Districts of this UDC for authorized uses.
- (c) Accessory uses or structures. Accessory uses or structures are allowed in accordance with Sec. 33-5.3.1, Accessory uses in a dwelling, and Sec.33-5.3.2, Accessory buildings, structures, and uses, in Article 5 Supplemental Conditions, of this UDC.
- (d) Mechanical equipment. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.
- (e) Home occupations. Home occupations are allowed in accordance with <u>Division</u>

  1, <u>Specific Use Standards</u>, <u>section 33-5.3.7</u>. Home occupations in <u>of</u> Article 5

  Supplemental Conditions, of this UDC.

6. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 4. Overlay Zoning Districts, Sec. 33-3.65. Old Metairie Conservation District (OMNCD), Sec. 33-3.65.3. *Authorized uses*, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33-3.65.3. Authorized uses.

- (a) See underlying zoning district. Authorized accessory buildings, structures, and uses shall comply with Division 1. Specific Use Standards of Article 5. Supplemental Conditions of this UDC.
- (b) <u>Mechanical equipment. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.</u>
- 7. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 4. Overlay Zoning Districts, Sec. 33-3.66. Metairie Ridge Tree Protection District (MRTPD), Sec. 33-3.66.3. *Authorized uses*, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33-3.66.3. Authorized uses.

- (a) See underlying zoning district. Authorized accessory buildings, structures, and uses shall comply with Division 1. Specific Use Standards of Article 5. Supplemental Conditions of this UDC.
- (b) <u>Mechanical equipment.</u> Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.
- 8. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 4. Overlay Zoning Districts, Sec. 33-3.67. Commercial Parkway Pedestrian (CPZ-Ped), Sec. 33-3.67.3. *Authorized uses*, to clarify standards applicable to mechanical equipment, to read as follows:

#### Sec. 33-3.67.3. Authorized uses.

- (a) Authorized uses in this district are those uses authorized in the underlying zoning district.
- (b) Accessory buildings, structures, and uses. Authorized accessory buildings, structures, and uses shall be subject to Division 1, Specific Use Standards, of Article 5, Supplemental Conditions, of this UDC.
- (c) <u>Mechanical equipment</u>. <u>Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this UDC.</u>
- (d) Development Patterns. The following development patterns are allowed and are subject to the standards of Article 5, Supplemental Conditions, Division 2, Development Patterns, of this UDC.

\* \*

9. Amend Chapter 33. Unified Development Code, Article 3. Zoning, Division 4. Overlay Zoning Districts, Sec. 33-3.69. Fairfield Overlay District (FOD), Sec. 33-3.69.3. *Authorized uses*, to clarify standards applicable to mechanical equipment, to read as follows:

### Sec. 33.3.69.3. Authorized uses.

Permitted uses in the FOD are those uses permitted in the underlying zoning district, except that the following modifications shall apply where uses described in this section are authorized in the underlying zoning district:

\* \* \*

- (4) Accessory uses or structures. Accessory uses or structures are allowed in accordance with Sec. 33-5.3.1, Accessory uses in a dwelling, and Sec. 33-5.3.2, Accessory buildings, structures, and uses, within Article 5. Supplemental conditions of this UDC.
- (5) Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design.
- (6) Home occupations. Home occupations are allowed in accordance with section 33-5.3.7. Home occupations in <u>Division 1, Specific Uses Standards, of</u> Article 5 Supplemental Conditions, of this UDC.
- (7) Notwithstanding anything herein to the contrary, agricultural, timber, natural resource exploration and extraction, and other resource based uses are permitted and authorized in undeveloped areas of the U-1S and/or FOD without further approval until such time as those specific areas are approved for development by the Council.
- 10. Amend Chapter 33 Unified Development Code, Article 6. General Development Standards, Division 2. Design Standards, Sec. 33-6.9.2. Residential Sites, to rename the section, add provisions related to mechanical equipment, and reference to general fence regulations, to read as follows:

Sec. 33-6.9. Site design.

Sec. 33-6.9.1. Purpose (reserved).

Sec. 33-6.9.2. Residential sites (reserved). Single-, two-, three-, and four-family residential sites.

**Sec. 33-6.9.2.1. Fences and walls.** 

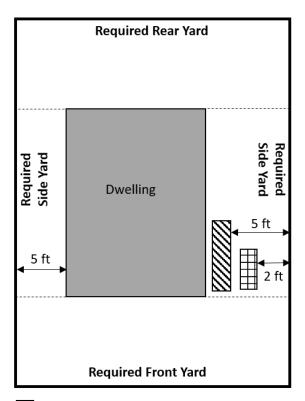
See Sec. 40-743.5 Regulations for fences of this Code.

Sec. 33-6.9.2.2. Mechanical equipment.

- (a) <u>Setback requirements</u>. Generators, pool equipment, air conditioning units, and other types of mechanical equipment:
  - (1) Front Yard. Shall not be located in the required front yard.
  - (2) Side Yard. May be located in the required side yard, provided that:
    - a. Generators shall be set back at least five (5) feet from any side property line. For corner lots, generators shall be located at least five (5) feet from the property line abutting the side street and shall not obstruct

- any clear vision area (see Figure 33-6.9.2.2-1).
- b. Any other type of mechanical equipment shall be set back at least two (2) feet from any side property line, provided that at least one (1) side yard area shall maintain at least five (5) feet of unobstructed access from the nearest side lot line and the mechanical equipment shall not obstruct any clear vision area (see Figure 33-6.9.2.2-1).
- (3) Rear Yard. May be located in the required rear yard at least three (3) feet from the property lines provided that the mechanical equipment shall not obstruct any clear vision area.

<u>Figure 33-6.9.2.2-1: Side Yard Setback Restrictions for Mechanical Equipment.</u>



- Generator
- Other Mechanical Equipment
- (b) Roof-mounted mechanical equipment.
  - (1) Mechanical equipment installed on a roof shall not exceed the maximum building height permitted in the base zoning district.
  - (2) Screening is required in the Old Metairie Neighborhood Conservation District (OMNCD) found in Sec. 33-3.65.5.1.
- (c) Variances and appeals. Notwithstanding the provisions of the Code for variances, only the Board of Zoning Adjustments (BZA) or Parish Council, as applicable, may grant variances from these standards, except that the

BZA or Parish Council, as applicable, shall not grant a zoning variance for the installation of a generator that does not meet all other applicable codes, unless the Board of Standards and Appeals (BSA) has approved the necessary variance or appeal(s) from the applicable technical code(s) per Sec. 8-1-105.

11. Amend Chapter 33 Unified Development Code, Article 6. General Development Standards, Division 2. Design Standards, Sec. 33-6.9.3. Multiple-Family, Commercial, Industrial, and Civic sites, Sec. 33-6.9.3.4. *Mechanical and service equipment and areas*, to include provisions related to mechanical equipment, to read as follows:

### Sec. 33-6.9.3.4. Mechanical and service equipment and areas

- (a) Dumpsters. Where permitted, dumpsters shall:
- (b) Where possible, vending machines, ice machines, and restrooms shall be located inside the main building.
- (c) Mechanical equipment.
  - (1) <u>Setback requirements</u>. Generators, pool equipment, air conditioning units, and other types of mechanical equipment shall meet the setbacks required by the base zoning district.
  - (2) <u>Roof-mounted mechanical equipment.</u> Mechanical equipment installed on a roof shall not exceed the maximum building height permitted in the base zoning district.
  - (3) Variances and appeals. Notwithstanding the provisions of the Code for variances, only the Board of Zoning Adjustments (BZA) or Parish Council, as applicable, may grant variances from these standards, except that the BZA or Parish Council, as applicable shall not grant a zoning variance for the installation of a generator that does not meet all other applicable codes, unless the Board of Standards and Appeals (BSA) has approved the necessary variance or appeal(s) from the applicable technical code(s) per Sec. 8-1-105.
  - 12. Amend Chapter 33. Unified Development Code, Article 10. Definitions, Sec. 33-10.2. *Definitions applicable to this entire UDC*, to include definitions related to mechanical equipment, to read as follows:

### Sec. 33-10.2. Definitions applicable to this entire UDC.

\* \* \*

Garage, storage shall mean a building or portion thereof designed or used for storage only of five (5) or more motor-driven vehicles pursuant to previous arrangements and not to transients, and at which automobile fuels and lubricants are not sold and motor-driven vehicles are not equipped, hired, repaired or sold.

Generator shall mean any permanently mounted stand-by unit(s), that involve(s) gas or combustible fuel operated machinery used for the purpose of temporarily supplying electricity. This does not include portable generators, solar generators, solar panels, wall mounted storage batteries used for backup electrical service, or other similar alternative energy resources.

Grade shall mean the elevation of the ground at a building or building site.

\* \* \*

Mass shall mean the overall proportion of a structure, including size, height and symmetry, relative to the original proportion of the structure and surrounding structures in the vicinity.

Mechanical Equipment shall mean any equipment used for mechanical services that include heating, cooling, and ventilation equipment; or pool equipment; or any sustainable energy systems, and generators (see "generator"), excluding utility meters, gas meters, wall mounted communication interfaces, tankless water heaters, electrical service panels, electrical disconnect devices, above ground tanks, underground tanks, and the necessary conduit piping needed for the wall mounted equipment named herein.

*Minor Subdivision* shall mean the minor subdivision of land as defined by state statute.

\* \* \*

13. Amend Chapter 40. Zoning, Article I. In General, Sec. 40-3. *Definitions*, to include definitions related to mechanical equipment, to read as follows:

Sec. 40-3 Definitions.

\* \* \*

Garage, storage shall mean a building or portion thereof designed or used for storage only of five (5) or more motor-driven vehicles pursuant to previous arrangements and not to transients, and at which automobile fuels and lubricants are not sold and motor-driven vehicles are not equipped, hired, repaired or sold.

Generator shall mean any permanently mounted stand-by unit(s) that involve(s) gas or combustible fuel operated machinery used for the purpose of temporarily supplying electricity. This does not include portable generators, solar generators, solar panels, wall mounted storage batteries used for backup electrical service, or other similar alternative energy resources.

Government structures and land shall mean any government building or other structure or land held, used, or controlled by the Parish of Jefferson, or its assigns for public purposes, or any government building, structure or land used by any department or branch of federal, state, or parish government, or other political subdivision, for public purposes, except correctional institutions or mental hospitals.

\* \* \*

Manufactured home: (manufactured housing). See "mobile home."

Mechanical Equipment shall mean any equipment used for mechanical services that include heating, cooling, and ventilation equipment; or pool equipment; or any sustainable energy systems, and generators (see "generator"), excluding utility meters, gas meters, wall mounted communication interfaces, tankless water heaters, electrical service panels, electrical disconnect devices, above ground tanks, underground tanks, and the necessary conduit piping needed for the wall mounted equipment named herein.

Medical waste shall mean that portion of potentially-infectious biomedical waste that is generated from the operation of medical programs, offices or facilities.

14. Amend Chapter 40. Zoning, Article VIII. Rural Residential District R-1C, Sec. 40-129. Area requirements for permitted uses, to clarify standards applicable to mechanical equipment, to read as follows:

Sec. 40-129. Area requirements for permitted uses.

(a) Minimum yard requirements.

(c) Accessory structures.

- Mechanical equipment. Mechanical equipment is allowed in accordance with Sec. 33-6.9. Site design of this Code.
  - 15. Amend Chapter 40. Zoning, Article IX. Rural Residential District R-1D, Sec. 40-149. Area requirements for permitted uses, to clarify standards applicable to mechanical equipment, to read as follows:

Sec. 40-149. Area requirements for permitted uses.

Minimum yard requirements. (a)

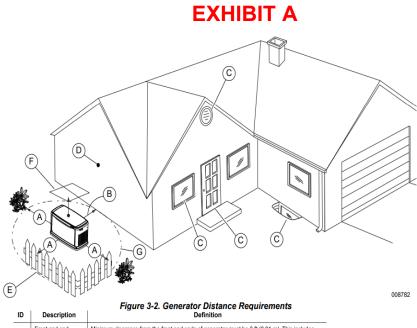
(c) Accessory structures.

- Mechanical equipment. Mechanical equipment is allowed in accordance with (d) Sec. 33-6.9. Site design of this Code.
  - 16. Amend Chapter 40. Zoning, Article XXXIX. Exceptions and Modifications, Sec. 40-742. Exceptions and modifications to use regulation, to delete the subsection and update subsequent subsections, to read as follows:
- Sec. 40.742. Exceptions and modifications to use regulation.
  - (a) Power plants, heating and refrigerating plants, or apparatus or machinery which are accessory to permitted uses in the S-1, Suburban District and in the R-1, R-2, RR-3 and R-3, Residential Districts shall be permitted in these districts only if so placed and operated to cause the least inconvenience to owners and tenants of adjoining property; and provided that the above-mentioned activities

- comply with existing ordinance and do not cause serious annoyance or injury to occupants of adjoining premises by reason of the emission of odors, fumes or gases, dust, smoke, noise or vibration, light or glare, or other nuisances.
- (b)(a) Existing railroads and utilities may continue to be operated and maintained in residential and commercial districts, but no new railroad or utility structure other than the usual poles, transformers, and similar appurtenances, wires, underground utilities, electric sub-station and gas metering and pressure regulating stations shall be established in such districts except when so authorized by the Inspection and Code Enforcement Director.
- (e)(b) Temporary buildings used in conjunction with construction work only may be permitted in any district during the period the construction work is in progress, but such temporary buildings shall be removed upon completion of the construction work.
- (d)(c) Coin-operated gaming device(s) are prohibited in any establishment within three hundred (300) feet of a church, playground or school as measured from any property line; however, those existing establishments containing and operating gaming device(s) within three hundred (300) feet of a church, playground or school who discontinue operation will have six (6) months from discontinuance date to reestablish their operation, after which time the operation of such gaming device(s) in these establishments is not permissible. This six-month time period does not apply if the gaming device(s) have been physically removed from the establishment.
- (e)(d) Incineration devices shall be prohibited within three hundred (300) feet of any residential zoned property.

### **REFERENCES**

- "What is the Difference between a Whole-House Generator and a Portable Generator?" 2014. Canter Power Systems. December 12, 2014. <a href="https://canterpowersystems.com/generators/difference-whole-house-generator-portable-generator/#:~:text=Whole%2Dhome%20generators%2C%20also%20known,gas%20lines%20or%20propane%20tanks.">https://canterpowersystems.com/generators/difference-whole-house-generator-portable-generator/#:~:text=Whole%2Dhome%20generators%2C%20also%20known,gas%20lines%20or%20propane%20tanks.</a>
- Gatto, Meg. n.d. "St. Tammany Official Wants Law Changed Pertaining to Generator Placement." <a href="https://www.fox8live.com">https://www.fox8live.com</a>. Accessed March 15, 2022. <a href="https://www.fox8live.com/2021/11/12/st-tammany-official-wants-law-changed-pertaining-generator-placement/#:~:text=Tammany%20official%20wants%20law%20changed%20pertaining%20to%20generator%20placement,-Close&text=NEW%20ORLEANS%20(WVUE)%20%2D%20The,the%20problems%20following%20Hurricane%20lda.
- "Installation Guidelines 60 Hz Air-Cooled Generators." n.d. Accessed November 5, 2022. https://www.norwall.com/product\_pdfs/7275\_70432\_install\_4\_2019.pdf

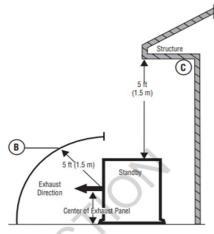


Minimum clearance from the front and ends of generator must be 3 ft (0.91 m). This includes Front and end clearance Α shrubs, bushes, and trees. Fuel and electrical connections are made here. 18 in (457 mm) minimum clearance per NFPA testing, labeling, and listing, unless state or local codes dictate otherwise. В Rear clearance No operable windows, doors, vents, window wells, or openings in the wall are permitted near any point of the generator. See *Potential CO Entry Points* for more information. Windows, vents, and openings С D The generator should not be placed closer than 18 in (457 mm) from existing walls Existing wall A removable barrier (non-permanent; without footings) installed as a visual surround. Removable fence panels for servicing cannot be placed less than 3 ft (0.91 m) in front of the Е Removable fence generator. 5 ft (1.52 m) minimum distance from any structure, overhang, or projections from wall DO NOT install under wooden decks or structures. F Overhead clearance Maneuvering space around generator for performing routine maintenance tasks such as battery replacement and engine service. Do not attempt to conceal generator with shrubs, bushes, or plants. Maintenance and G

Figure 14. Generac Manufacturer Specifications 60 Hz Air-Cooled Generators 10 kW to 22 kW.



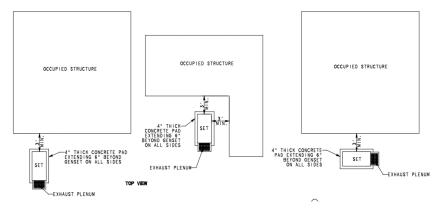
Figure 15. Briggs and Stratton Specifications



#### egend for Generator Locations to reduce the risk of fire.

- A Standby weatherproof enclosure must be at least 5 ft (1.5 m) from windows, doors, any wall opening, shrubs or vegetation over 12 inches (30.5 cm) in height.
- B Exhaust outlet side of weatherproof enclosure must have at least 5 ft (1.5 m) minimum clearance from any structure, shrubs, trees or any kind of vegetation.
- C Standby weatherproof enclosure must have a minimum of 5 feet (1.5 m) overhead clearance from any structure, overhang or trees.
- D Standby Weatherproof enclosure must have a minimum of 18 inches (45.7 cm) clearance from any structures with or without a fire rating.

#### RESIDENTIAL INSTALLATION GUIDE



#### PREFERRED

- I) EXHAUST END IS AWAY FROM THE STRUCTURE.
- 2) EXHAUST IS NOT DIRECTED AT PLAY AREAS, PATIOS, UNDER OVERHANGS OR AREAS WHERE PEOPLE CONGREGATE.
- 3) THE NEAREST WINDOW, VENT, DOOR OR SIMILAR STRUCTURE OPENING IS AT LEAST 5' FROM THE EXHAUST END OF THE SET.
- 4) SET HAS PROPER OFFSET FROM STRUCTURE.
- 5) WINDOWS & DOORS ON ADJACENT WALLS ARE CLOSED.
- 6) FURNACE AND OTHER SIMILAR INTAKES ARE AT LEAST 10' FROM EXHAUST END OF SET.
- 7) REFER TO OWNERS MANUAL FOR OTHER INSTALLATION CONSTRAINTS.

Figure 16. Kohler Specifications

#### ACCEPTABLE

- I) EXHAUST IS AWAY OR PARALLEL TO STRUCTURE.
- 2) EXHAUST IS NOT DIRECTED AT PLAY AREAS, PATIOS, UNDER OVERHANGS OR AREAS WHERE PEOPLE CONGREGATE.
- THE NEAREST WINDOW, VENT, DOOR OR SIMILAR STRUCTURE OPENING IS AT LEAST 5' FROM THE EXHAUST END OF THE SET.
- 4) SET HAS PROPER OFFSET FROM STRUCTURE.
- 5) WINDOWS & DOORS ON ADJACENT WALLS ARE CLOSED.
- FURNACE AND OTHER SIMILAR INTAKES ARE AT LEAST 10' FROM EXHAUST END OF SET.
- 7) REFER TO OWNERS MANUAL FOR OTHER INSTALLATION CONSTRAINTS.

Jefferson Parish, Louisiana

Jefferson Parish Planning Department

# TXT-2-22:MECHANICAL EQUIPMENT STUDY

Summary No. 26026

Parish Council Meeting: December 14, 2022

12/14/22

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### **OUTLINE**

- Study Overview
- Background
- Analysis and Findings

Planning Department Recommendations

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## STUDY OVERVIEW: PURPOSE

- On March 31, 2021 the Parish Council adopted Resolution No. 137391, which authorized the Planning Department and PAB to conduct a text study of the Ch. 33 and Ch. 40 of the Code of Ordinances:
  - Intent: Evaluate, establish, and amend standards and requirements related to mechanical equipment
  - No interim standard, but the Home Builders of Greater New Orleans (HBAGNO) requested that required side yard for mechanical equipment in R-1B, R-1C, and R-1D be min. of 5 ft.

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## STUDY OVERVIEW: GOALS

- The Planning Department aims to address development and life safety issues pertaining to mechanical equipment, specifically "whole house" generators by accomplishing the following:
  - · Establish definitions related to mechanical equipment
  - Distinguish mechanical equipment from other accessory structures
  - Establish provisions for generators and other types of mechanical equipment, including:
    - · Clear setback requirements for generators and other types of mechanical equipment
    - Appropriate variance limitations for generators
  - This report primarily addresses definitions, general setback and other development regulations associated with mechanical equipment, specifically restrictions and life safety measures for generators.
    - Planning will be evaluating future types of mechanical equipment (i.e. electric charging stations, solar roofs and technology) and other development standards associated with mechanical equipment as part of the ongoing study, and future report.

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## STUDY OVERVIEW: OUTREACH SUMMARY

#### March 2021

Study called

#### June 2021

Meeting with HBA to discuss initial research and findings

### July 2021

### August 2021

### November 2021-Summer 2022

Additional research and internal meetings

Release of recommendations

Meetings installers

Hurricane Ida

### August 2022

- Study was called in March 2021
  - · Staff met with representatives from the Home Builders Association of Greater New Orleans (HBAGNO) in June 2021
  - Over the course of Summer 2021, staff met with individual HVAC, generator, and pool
    equipment installers to discuss potential mechanical equipment definitions, setback
    requirements, and other issues related to installation
- In August 2021, Hurricane Ida hit the Louisiana Gulf Coast and the Metropolitan area of New Orleans.
- Planning met with other parish departments and agencies
  - Worked with the Department of Inspection and Code Enforcement and the Eastbank Consolidated Fire Department to ensure that the permit process for whole house and commercial generators thoroughly addresses all issues of safe installation (November 2021)
  - Followed up with the Department of Inspection and Code Enforcement in June 2022
- · Updated the Home Builders Association of Greater New Orleans at their meeting in July 2022
  - Clarified existing National Fire Protection Association (NFPA) and other standards required for a whole house and commercial generator permit for Jefferson Parish

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# BACKGROUND: TYPES OF MECHANICAL EQUIPMENT

JP issues permits for the installation of different types of mechanical equipment including pool equipment, air conditioning units, generators.

### **Pool Equipment**



### **Air Conditioning Units**



Generators



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## **BACKGROUND: GENERATOR COMPARISON**

### **Portable**

- Is a gas or diesel-powered device which provides temporary electrical power
- Doesn't power all appliances/devices
- Have to fill gas up
- Recommended to be 20 ft from all structures according to NFPA



### <u>Jefferson Parish will not regulate portable</u> generators

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### Standby (Whole House)

- Is a backup power solution that provides power to your business operations, commercial & industrial applications, facilities, and residential structures in the event of a power outage. Standby generators are usually stationary and require a concrete pad, stand, or other foundation usually situated outside a residence or other facility.
- Can power multiple appliances/devices
- Uses natural gas line
- Between 18 inches to 3 feet/5 feet from exhaust outlet from all structures depending on specific manufacturer specifications



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## BACKGROUND: HOW DO GENERATORS WORK?



## **COST OF GENERATORS**

- Generators cost 6-11K (Includes installation)
- New gas line can cost an average of \$563
  - The range is \$120 \$1800
  - Most home owners spend between \$271 and \$881
- For extending a gas line, it would cost \$15 \$25 per linear feet, plus \$45 \$200 per hour for work

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# BACKGROUND: WHY ARE GENERATORS ESSENTIAL?

- Generators are becoming more of a life safety necessity in Southeast Louisiana and across the country
- Generators, provide essential support to residents and businesses during natural disasters, weather events, and other power outages, especially in prolonged storm events like Hurricane Ida
- They can provide temporary electricity:
  - To residential dwellings and residential facilities;
  - To essential businesses and institutions like hospitals, gas stations, grocery stores, and laundromats
  - To emergency operations sites including police stations, fire stations, local government agencies, etc.
- Generators can run temporary power to various appliances necessary for survival and comfort, including but not limited to, HVAC equipment, refrigerators and electronics like televisions and power sources used for charging cell phones and other electronics
- Although generators can benefit the community, many emit carbon monoxide, which may poison individuals who rely on machines to keep their family safe, especially during extended power outages



https://www.google.com/url?sa=i&url=https%3A9%2F%2Fabcnews.go.com%2FUS%2Fhurricane-ida-aftermath-climate-change-making-hurricanes-

devastating%zFstory%3Fid%3D7g3r27034&psig=AOvVaw3xz9\_QdYj6455mRj7UE9X6&ust=16500357675 99000&source=images&cd=vfe&ved=oCAkQjRxqFwoTCPjTzbHsk\_cCFQAAAAAdAAAAAAAADAD

"As climate change and the nation's aging infrastructure combine to cause worsening storms and longer power outages, experts warn that more people are turning to portable generators every year – a trend that benefits manufacturers' bottom line while putting more people at risk."

"Generators poison thousands of people a year. The U.S. has failed to force safety changes." N.d. NE
News, https://www.nbcnews.com/news/us-news/generators-carbon-monoxide-poisoning-rcnagozz

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# BACKGROUND: LIFE SAFETY CONCERNS ASSOCIATED WITH GENERATORS

- · Various incidents related to dangers of generators across the country:
  - Per information obtained from the Jefferson Parish Fire Department (JPFD), there were over 700 generator calls for service after Hurricane Ida 08/29/2021 09/20/2021\*
  - A family of 3 individuals in JP died after the storm from carbon monoxide poisoning related to a recently purchased portable generator.
  - At least 10 people in February after a massive winter storm knocked out power across Texas, causing more than half of the known carbon monoxide deaths linked to the outage, according to medical examiner investigations and incident reports.
- Even though many carbon monoxide issues have been from portable generators, many whole house standby generators also emit carbon monoxide and may contribute to poisoning.

• \*Data obtained from JPFD did not differentiate between portable or "whole house"/standby generators

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# REGULATIONS, SPECIFICATIONS, POLICIES, AND PROCEDURES

International codes, manufacturer's specifications, and local ordinances indicate where generators can be installed in relation to surrounding structures, features, and property boundaries.

### Staff evaluated the following:

- NFPA (National Fire Protection Association) Codes
- 2015 International Mechanical Code (Ventilation)
- Manufacturer's specifications
- Local government regulations
  - Jefferson Parish Code of Ordinances and applications
  - Local ordinances and applications from other cities/counties

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# BACKGROUND: MANUFACTURER REQUIREMENTS

Minimum standards for placement of standby generators per manufacturer specifications (Vary depending on make/model/year)

Manufacturer	Distance from Structure	Distance from Windows, Doors, Any Wall Openings, or Vents	Overhead Clearance	Trees, Shrubbery, and Vegetation Spacing
Generac	18 inches	Air intake vents must be 10 feet from the generator enclosure	5 feet	3 feet
Kohler	3 feet	5 feet from exhaust end of the set (10 feet for furnace and other similar air intakes)	N/A	4 feet from exhaust end
Briggs and Stratton	18 inches, 5 feet from exhaust outlet	5 feet	5 feet	5 feet from exhaust outlet

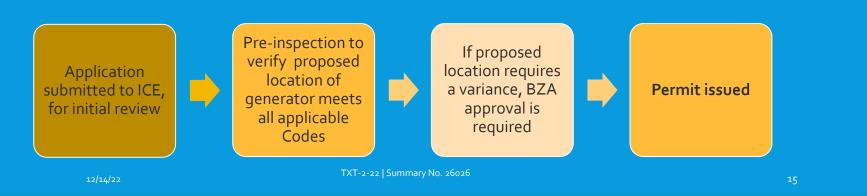
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# BACKGROUND: REGULATIONS AND SPECIFICATIONS

Jefferson Parish Setbacks and Distance Requirements for Generators			
ZONING	NFPA 37, NFPA 37, IMC/Fuel Gas, and Code Enforcement procedures and policies		
Setbacks	Distance to Structures	Distance to Openings	
Allowed within the buildable area and required rear yard, at least 3 feet from property line; not permitted within the required front and side yard setbacks (JP Code Sec. 40-742 (a); Sec. 33-5.3.2) Allowed within buildable area for commercial development	5 feet from windows, doors, or other openings and 5 feet from structures having combustible walls (NFPA 37 4.1.4); If an adjacent wall or structure has a fire resistance rating of at least 1 hr. or enclosure shall be 18 inches from any part of the enclosure to the wall (NFPA 37.4.1.4) *; 5 feet from a patio covering, carport, or other overhang projection (Department of Inspection and Code Enforcement Procedures)  *Code Enforcement will allow operable windows, that are not a required egress window, to be sealed. A picture and comment needs to be uploaded to the permit during code's or parish's final inspection showing and stating the window is sealed.	10 feet from any soffit, eave, or fresh air vent (Department of Inspections and Code Enforcement Procedures, International Mechanical Code)	
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# BACKGROUND: POLICIES AND PROCEDURES

- In 2022, the Department of Inspection and Code Enforcement established a new procedure for handling generator permits:
- Applicant submits an application and acknowledges the following: the installation will follow all manufacturers recommended installation instruction, the installation will follow the NFPA 37 code and the current State Adopted IMC.
- A pre-Inspection by a Building Inspector to verify the Site Plan is permittable according to code before a permit can be issued or variance can be heard.
- The installation must include the verification of a carbon monoxide detector/alarm.
- · If the above referenced requirements are not met, permit is not issued.



### **ANALYSIS**

- As part of the analysis, Staff analyzed:
- How certain communities regulate mechanical equipment including definitions and locational requirements;
- Research of previous permits and variance requests;
- Issues with current regulations and specifications; and
- New state legislation regarding carbon monoxide detectors and federal investigations regarding the product.

List of communities reviewed

New Orleans, LA

Shreveport, LA

Gretna, LA

Zachary, LA

St. Tammany Parish, LA

**National Jurisdictions** 

Fairfax, VA

Hillsborough County, FL

Arlington, VA

University Park, TX

Fort Lauderdale, FL

Palm Beach County, FL

Bonita Springs, FL

Plainfield, NJ

Houston, TX

Wilmette, IL

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# ANALYSIS: COMMUNITY COMPARISON: LOUISIANA

Louisiana Jurisdictions	Rear Yard Pard	Side Yard	Types of Equipment
New Orleans, LA	Five (5) feet	Three (3) feet	Mechanical equipment*
Shreveport, LA	Three (3) feet	Three (3) feet	Mechanical equipment* (not including pool equipment)
Gretna, LA	Five (5) feet	Five (5) feet	N/A
Zachary, LA	Two and a half (2.5) feet	Two and a half (2.5) feet	AC units
St. Tammany Parish, LA	Three (3) feet	Three (3) feet	Generators only

<sup>\*</sup>Mechanical equipment includes but is not limited to heating and cooling apparatus, generators, and pool pumps, unless otherwise noted

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# ANALYSIS: COMMUNITY COMPARISON: *NATIONAL*

National Jurisdictions	Rear Yard	Side Yard	Types of Equipment	*Mechanical equipment
Fairfax, VA	Five (5) feet	Five (5) feet	Mechanical Equipment*	includes but not limited t
Hillsborough County, FL	Up to five (5) feet	Up to two and a half (2.5) feet	Mechanical Equipment*	heating and cooling apparatus,
Arlington, VA	Ten (10) feet (if screened, eight (8) feet)	Eight (8) feet (if screened, five (5) feet)	Mechanical Equipment*	generators, and pool pumps, unle
University Park, TX	Two (2) feet	Two (2) feet	Mechanical Equipment*	otherwise noted
Fort Lauderdale, FL	Five (5) feet	Five (5) feet	Mechanical Equipment*	
Palm Beach County, FL	Five (5) feet	Three (3) feet	Generators (less than four (4) feet in height)	
Bonita Springs, FL	Three and a half (3.5) feet	Three and a half (3.5) feet	Mechanical Equipment (for setbacks greater than seven and a half (7.5) feet)*	
Plainfield, NJ	Three (3) feet	Three (3) feet	HVAC units and generators	
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# ANALYSIS: COMMUNITY COMPARISON: GENERATORS

Parish/County/City	Rear	Side	Distance to Structure
Broward County, FL	N/A	N/A	5 ft from openings in walls, 5 ft from structure, exhaust output 10 ft from structure
Miami-Dade County, FL	5 ft	Interior side – 3 ft in Residential, 5 ft in Estate, Agricultural, and Interim districts. Side street – behind the side street building line, no closer than 10 ft.	Exhaust output 10 ft from wall openings (windows, doors, exhaust fans, appliance vents, etc.)
Indian River County, FL	Located within 5 ft. of building: 10 ft. from property line Located within 5 ft. of building and applicable to building and fire codes: 5 ft. from property line For lot of record (less than 70 ft. wide): no closer than 2.5 ft. from property line by applicable building and fire code.	Located within 5 ft. of building: 10 ft. from property line Located within 5 ft. of building and applicable to building and fire codes: 5 ft. from property line For lot of record (less than 70 ft. wide): no closer than 2.5 ft. from property line by applicable building and fire code.	N/A

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# ANALYSIS: COMMUNITY COMPARISON: GENERATORS

Parish/County/City	Rear	Side	Distance to Structure
Collier County, FL	10 ft. (waterfront), 5 ft. (non-waterfront)	1, 2, 4, 10 ft. (depends on setback of structure)	Spacing from structure follows manufacturer's requirements Distance from windows, soffit vent, eaves to the dwelling, shrubs, and trees: 5 ft.
West Baton Rouge Parish, LA	5 ft. clearance from any structure and property lines (unless manufacturer states otherwise)	5 ft. clearance from any structure and property lines (unless manufacturer states otherwise)	5 ft. clearance from any structure and property lines (unless manufacturer states otherwise)
St. Charles Parish, LA (generators?)	5 ft.	5 ft.	N/A
St. Tammany Parish, LA	3ft., 15 ft. from a neighboring house	3 ft., 15 ft. from a neighboring house	5 ft., 3 ft. if wall is one-hour protected, 18 inches if one-hour protected and the home is spray-foam insulated. 5 ft. from openings
City of Fort Lauderdale, FL	5 ft. to the property lines, 10 ft. to the water	<b>5 ft. to the property lines,</b> 10 ft. to the water	Exhaust output 10 ft. from openings
City of Palm Beach, FL	N/A	N/A	5 ft. from openings, 5 ft. from combustible walls
City of Houston, TX	2 ft.	2 ft.	5 ft.
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# COMMUNITY COMPARISON: GENERATORS

Parish/County/City	Rear	Side	Distance to Structure
City of Pearland, TX	N/A	N/A	Exhaust output 5 ft. from openings
City of Alexandria, VA	N/A	N/A	Generator manufacturer Requirements
County of San Diego, CA	N/A	N/A	Center of generator set shall be located no farther than 5 ft. from enclosure wall nearest to the affected property line

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## **ANALYSIS: PERMITS AND VARIANCES**

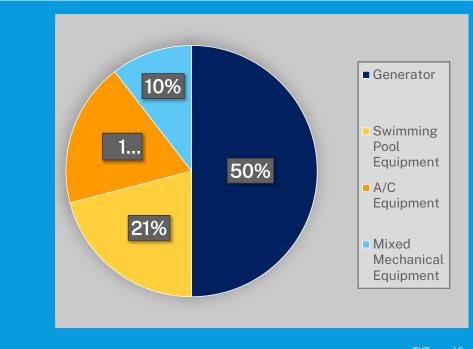
- Number of building permits for generators have increased:
  - 5/1/18 5/1/19: 169 generator permits
  - 5/1/19 5/1/20: 244 generator permits
  - 5/1/20 5/1/21: 701 generator permits
- Many permits for generators and other mechanical equipment reviewed required variances from the BZA
- · Variances have been granted for mechanical equipment, especially generators
- From 5/1/2018 to 5/1/2021, there were a total of 580 variance petitions
  - 86 (14.83%) cases involved mechanical equipment
    - 13 either pending BZA decision or did not result in a judgement
    - 73 were approved by the BZA

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## **ANALYSIS: VARIANCES**



# Breakdown of Mechanical Equipment Variances

- Generators: 43
- Swimming Pool Equipment: 18
- A/C Equipment: 16
- Mixed Mechanical Equipment: 9

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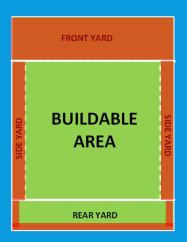
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# ANALYSIS: ISSUES WITH CURRENT REGS AND SPECIFICATIONS

- Sec. 40-742 (a) states:
- "Power plants, heating and refrigerating plants, or apparatus or machinery which are accessory to permitted uses in the S-1, Suburban District and in the R-1, R-2, RR-3 and R-3, Residential Districts shall be permitted in these districts only if so placed and operated to cause the least inconvenience to owners and tenants of adjoining property; and provided that the above-mentioned activities comply with existing ordinance and do not cause serious annoyance or injury to occupants of adjoining premises by reason of the emission of odors, fumes or gases, dust, smoke, noise or vibration, light or glare, or other nuisances."

•Sec. 33-5.3.2 (b) (2) states:

- Rear yards. Accessory buildings, structures, or swimming pools may be built in a required rear yard provided:
  - a. Excluding swimming pools, no more than forty (40) percent of the required rear yard shall be covered by accessory buildings or structures; and
  - b. In residential districts, accessory buildings, structures, or swimming pools shall not be located less than three (3) feet from either side or rear lot line.



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## ANALYSIS: ISSUES WITH CURRENT JP REGS

- No specific setback provisions or definition for mechanical equipment in the Code
  - Mechanical equipment should be treated differently from other accessory structures
    - More ancillary or essential in function than other accessory structures
    - Should be distinguished from other accessory structures
  - In practice, certain setback exceptions related to accessory structures have been applied to mechanical equipment, even though mechanical equipment like air conditioning units and generators are more essential in function
    - In practice: in residential zoning districts, mechanical equipment may be located within the buildable area and required rear yard, but not the interior required side yard
    - Lack of clear requirements may add confusion over requirements may delay or lengthen the review process
  - Life safety concerns and other applicable codes that apply to generator installation are not addressed or referenced
  - Currently, no restrictions on variances for generators

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#### **Carbon Monoxide Detectors**

- · Louisiana has passed a bill requiring detectors in one- or two-family dwellings
  - "To amend and reenact R.S. 40: 1581 (A) through (D) and to enact R.S. 40: 1581 (E) and (F), relative to carbon monoxide detectors in one- or two-family dwellings; to provide for a long-life, sealed battery carbon monoxide detector in certain dwellings; to provide for applicability; and to provide for related matters."
- At the time of sale or lease, a dwelling shall contain, at minimum, an operable carbon monoxide detector
- Any person installing a generator in one- or two-family dwellings shall include, at minimum, an operable carbon monoxide detector

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- · Carbon monoxide is a harmful and potentially fatal odorless and colorless gas
- Generators produce carbon monoxide
- Detectors exist as a life safety tool to avoid dangerous situations
- Three (3) types of Carbon Monoxide Detectors
  - Hard-wired
  - Plug-in
  - Battery-operated

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State	Statute	Summary
California	Cal. Health & Safety Code § 1569.311	Requires the owner of every single-family dwelling, hotel and motel dwelling units, intended for human occupancy to maintain a carbon monoxide device
Florida	Fla. Stat. § 553.885 – Carbon monoxide alarm required	Requires that every building for which a building permit is issued for new construction on or after July 1, 2008, and having a fossil-fuel-burning heater or appliance, a fireplace, or an attached garage shall have an approved operational carbon monoxide alarm installed within 10 feet of each room used for sleeping purposes
Georgia	Sec. R <sub>313</sub> .4.1 of Ga. State Minimum Standard One and Two Family Dwelling Code	Requires carbon monoxide detectors to be installed in general sleeping areas in all new one – and two-family homes and townhomes of three stories or less
Illinois	43 III. Comp. Stat. § 135/ Carbon Monoxide Alarm Detector Act	Requires that every dwelling unit shall be equipped with at least one approved carbon monoxide alarm in an operating condition within 15 feet of every room used for sleeping purposes. Every structure that contains more than one dwelling unit shall contain at least one approved carbon monoxide alarm in operating condition within 15 feet of every room used for sleeping purposes.

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State	Statute	Summary	
Maryland	Md. Code Ann., Pub. Safety § 12-1101 to 1106 – Carbon Monoxide Alarms	Requires the installation of carbon monoxide alarms outside of each sleeping area or within a certain distance of carbon monoxide-producing equipment within certain dwellings	
Minnesota	Minn. Stat. § 299F.50 to .51 – Carbon Monoxide Alarms	Requires that every single family dwelling and every dwelling unit in a multifamily dwelling must have an approved and operational carbon monoxide alarm installed within ten feet of each room lawfully used for sleeping purposes	
New York	N.Y. Exec. Law § 378 – Standards for New York state uniform fire prevention and building code	Requires New York Fire Prevention and Building Code to adopt standards for installation of carbon monoxide detectors requiring every one- and two-family dwellings, any condominiums, or any multiple dwelling constructed or for sale shall have installed an operable carbon monoxide detector. Carbon monoxide detectors required by this section are required only where the dwelling unit has appliances, devices, or systems that may emit carbon monoxide or has an attached garage.	
West Virginia	W. Va. Code § 29-3-1a – Smoke detectors in one- & two-family dwellings; carbon monoxide detectors in residential units; penalty	Requires carbon monoxide detectors be installed in newly constructed residential units with a fuel-burning heating or cooking device; all rooms in which a person will be sleeping that are adjoining to and being directly below and above all areas or rooms that contain permanently installed fuel-burning appliances and equipment that emit carbon monoxide as a byproduct of combustion located within all multi-family, boarding houses, dormitories, elderly care facilities, adult or child care facilities, one- and two-family dwellings that or rented/leased, hotels, and motels	
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#### **General Safety**

- CPSC (Consumer Product Safety Commission) is a federal agency that regulates consumer products.
- CPSC reported noted that there were 880 fatalities from 655 incidents associated with generators between 2005 and 2017.
  - This includes six (6) fatalities from four incidents from permanently installed stationary generators.
  - Recent local news article indicates CPSC is actively investigating current specifications and requirements for "whole house" standby generators

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## FINDINGS AND APPROACH

- · Specific and clear requirements in the Code for mechanical equipment, apart from accessory structures, are necessary.
- Code currently lacks general setback standards, which can complicate and lengthen the development review process.
  - As applied in practice, mechanical equipment currently may be located within the buildable area and rear yard, but not the interior side yard on certain residential sites.
  - Sec. 40-738 allows for projections, including mechanical equipment to be set back at least two (2) feet measured from the exterior of the stair or ramp to the nearest side lot line and at least one (1) side yard area shall maintain at least three (3) feet of unobstructed access from the nearest side lot line.
  - Setback requirements for mechanical equipment vary amongst communities reviewed:
    - Several of the communities reviewed allow a 5 ft. min. distance from the side lot line for generators and other types of mechanical equipment.
    - Of the communities reviewed, most require mechanical equipment to be located between two and ten feet from the side lot line.
    - Some communities required additional standards and distance requirements that impact where mechanical equipment can be located.
    - At least one community reviewed, requires at least one setback be entirely clear of any protrusions or equipment to ensure accessibility to the rear of the property.
  - NFPA, other applicable codes (i.e. building codes, mechanical codes, etc.) and manufacturer specifications can limit where generators can be installed on a development site and should be considered when establishing zoning setbacks for generators

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## FINDINGS AND APPROACH

- Variances and Appeals:
  - Limitations on Board of Zoning Adjustments (BZA) variances related to life safety should be considered which is proposed to go to the Board of Standards and Appeals (BSA), a more technical board
- · Additional restrictions for generators should be maintained, but do not need to be codified:
  - State of Louisiana recently passed legislation requiring carbon monoxide detectors with the installation of whole house generators
    - Carbon monoxide detectors will be required by state law, but will not be codified in the proposed regulations
  - Generators will still need to be installed according to manufacturer's specifications, federal, state, and local fire, safety and building codes, and all other applicable codes, and Department of Inspection and Code Enforcement policies and procedures

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# RECOMMENDATIONS TXT-2-22 | Summary No. 26026 12/14/22 33

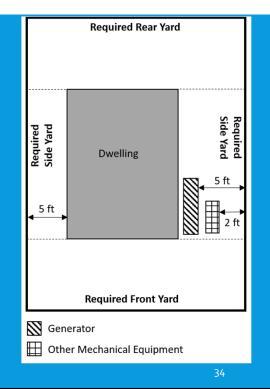
### PROPOSED REGULATIONS: SETBACKS

#### Residential (one-, two-, three-, four-family) Sites

- **Setbacks.** Mechanical equipment:
  - •Front Yard. Shall not be located in the front yard.
  - •Side Yard. May be located in the required side yard, provided that:
    - Generators shall be set back at least 5 feet from any side property line.
      - For corner lots, generators shall be located at least five 5 feet from the property line abutting the side street and shall not obstruct any clear vision area
    - Any other type of mechanical equipment shall be set back at least 2 feet from any side property line, provided that:
      - •At least 1 side yard area shall maintain at least 5 feet of unobstructed access from the nearest side lot line and
      - •The mechanical equipment shall not obstruct any clear vision area.
  - •Rear Yard. May be located in the required rear yard at least 3 feet from the property lines provided that the mechanical equipment shall not obstruct any clear vision area.
- •Additional provisions for roof-mounted equipment.

#### Multiple-family, Commercial, Industrial, and Civic Sites

- Mechanical equipment shall meet the setbacks of the base zoning district.
- Additional provisions for roof-mounted mechanical equipment.



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#### PROPOSED REGULATIONS: Proposal does not meet Proposal does not zoning requirements, **GENERATORS** meet zoning or other but meets other codes relevant codes Variances and Appeals: ICE review The Board of Zoning Adjustments ICE review (BZA) shall only grant variances Pre-inspection once the Board of Standards and Pre-inspection Appeals (BSA) has approved the BZA/Council variance review and hearing generator BSA variance review and hearing In certain special zoning districts, If approved, permit issued the Parish Council will take action If approved, BZA/Council variance approval process Carbon monoxide after the BSA has reviewed and detector verified during approved a variance inspection If approved, permit issued Carbon monoxide detector verified during inspection TXT-2-22 | Summary No. 26026

## PROPOSED DEFINITIONS

- Mechanical Equipment shall mean any equipment used for mechanical services
  that include heating, cooling, and ventilation equipment; or pool equipment;
  or any sustainable energy systems, and generators (see "generator"),
  excluding utility meters, gas meters, wall mounted communication interfaces,
  tankless water heaters, electrical service panels, electrical disconnect devices,
  above ground tanks, underground tanks, and the necessary conduit piping
  needed for the wall mounted equipment named herein.
- Generator shall mean any permanently mounted stand-by unit(s), that involve(s) gas or combustible fuel operated machinery used for the purpose of temporarily supplying electricity. This does not include portable generators, solar generators, solar panels, wall mounted storage batteries used for backup electrical service, or other similar alternative energy resources.

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### RECOMMENDATION SUMMARY

- Establish clear setback requirements and other standards for generators and other mechanical equipment
- · Clarify additional requirements for roof-mounted mechanical equipment
- Establish limitations for Board of Zoning Adjustments (BZA) zoning variances for generators
- Add definitions for mechanical equipment and generator
- Apply, but not codify additional standards for generators:
  - Generators shall be installed according to manufacturer's specifications, federal, state, and local fire, safety and building codes, and all other applicable codes, and Department of Inspection and Code Enforcement policies and procedures.
  - Require verification of carbon monoxide detectors with installation in accordance with state law.

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