



THORNHILL ESTATE
DOCUMENT CONTROL SYSTEM

ADD:011:D

**ADDENDUM 11:
RULES GOVERNING THE INSTALLATION &
OPERATION OF GENERATORS AND OTHER
ALTERNATIVE ELECTRICAL SUPPLIES**

Original Issue 'A'	Name	Signature	Date
Prepared:	Gov Committee	<i>ORIGINAL</i>	
Recommended: Governance Com.			
Authorised for Issue: THOA Chairman.	Allan Bartram	<i>Signed A. Bartram</i>	03/12/2010

REV	DESCRIPTION	DATE	CONTENT APPROVED	AUTHORISED
B	Updated in conformance with the 2011 Constitution	2012-01-06	Trustees Meeting on 08/05/2012	I. Boxall 08/05/2012
C	Updated to reflect Operations Manager's Responsibility	2015-05-08		
D	Updated to reflect current legislation and standards, other alternative electrical supplies and to clarify accountability.	2018-02-10	THOA Board Meeting on 13/02/2018	S. Burrow 13/08/2018

Thornhill Homeowners Association

9 Namur Avenue, Thornhill Estate, Modderfontein, 1644
 Tel: 011 608 0835 Fax: 011 608 2832 Email: estatemanager@thoa.co.za Web: www.thoa.co.za
 VAT No.: 4370191910



ADDENDUM 11: RULES GOVERNING THE INSTALLATION & OPERATION OF GENERATORS AND OTHER ALTERNATIVE ELECTRICAL SUPPLIES IN THORNHILL ESTATE

(Read in conjunction with the Code of Conduct, Rules and Regulation of Thornhill Estate)

1 General:

Any installation of a generator, or any other alternative supply such as inverter and battery storage system with or without photo-voltaic cell arrays or wind turbine, whether purchased or rented and irrespective of output or portability, requires acceptance from the Operations Manager,

2 Insurance

Before committing to a generator or other alternative supply, it is also advisable to contact your insurer since cover might be denied should an undeclared and/or improperly sized and connected system be found the cause of fire, injury or death. Generators require flammable liquid or gaseous fuels which are potentially hazardous to store and use. Exhaust gases are rich in Carbon Monoxide which is colourless, odourless and extremely toxic, even in low concentrations.

3 Installation

3.1 Carbon Monoxide

Prior to installation and usage of a generator, members and residents are advised to read and absorb the contents of **Clause 10** related to Portable Generator Hazards, the contents of which apply equally to permanent fuel driven generator installations. Make sure your installation is declared in your insurance policy and that incidents related to your generator are not excluded.

3.2 No back feeding

It is illegal to back feed all or part of your household by connecting an alternative supply of any type into a power outlet. Such a practise is outlawed as it is extremely hazardous.

4 Alternatives

Consideration should also be given to the installation of inverter/battery storage solutions with or without photo-voltaic cells, or wind turbines depending upon the required load characteristics. These are virtually noise free and require no flammable liquid or gaseous fuel producing toxic gases. Power can be generated directly or obtained from the grid and stored until needed.

5 Location:

5.1 Generators:

- a) May not be installed on common property (pavements, greenbelts and roads);
- b) May not be visible from the road or greenbelts. Planting or other screening may be required;
- c) Must not be within 1m of the boundary as a fire safety precaution.

5.2 All fuel to be stored in leak proof/airtight containers specifically designed for such storage e.g. Jerry cans

5.3 Noise attenuation measures must be taken to minimise the impact of noise on the surrounding neighbours. Environmental regulations allow no more than 7 dBA above the ambient or rating level which, in suburban districts, is 50dBA outdoors and 40dBA indoors (windows open) during daytime and 40dBA and 30dBA respectively during night-time.

5.4 Sufficient ventilation to prevent fume build-up is required. Never use a generator indoors, even with doors and windows open. Refer to **Clause 10** on Portable Generator hazards.

Note: The risk of CO poisoning is very real. Portable generators are not intended for internal use. CO build-up is possible in open sided carports and hence these areas are not considered to be external

6 Operating Times:

6.1 Generators may not be operated between 23:00 and 06:00

6.2 If it can be demonstrated that the generator or other alternative supply unit in operation cannot be heard from adjacent properties, then exemption from this rule may be granted.

7 Requirements for Acceptance – Portable Generators:

7.1 This applies to small portable generators or other alternative supply systems that are not connected into the existing electrical circuits / distribution board but merely have an extension cord that electrical appliances may be plugged into.

7.2 Where possible, full details of the generator to be purchased, need to be detailed in the application for acceptance.

8 Requirements for Acceptance – Permanently connected Generators:

8.1 Applications for acceptance of permanently connected generators or other alternative supply systems will be referred to the Sub-committee specifically set up to deal with such applications. This committee has been housed under the Architectural portfolio, and applications will be reviewed from an architectural/aesthetic point of view.

8.2 A site plan showing the location of the intended position including proximity to boundary walls needs to be submitted for acceptance prior to installation.

- 8.3** Surrounding neighbours' signed acknowledgement on said site plan is needed. Where in the opinion of the Operations Manager, neighbour acceptance is being unreasonably withheld; the Operations Manager may accept the application on the basis of an inspection and sufficient motivation.
- 8.4** Where possible, full details of the generator to be purchased, must be detailed in any application. A response to an application will be given within 24 hours in respect of portable generators and 48 hours in respect of permanent generators, workloads permitting. Submissions must be lodged at the Estate office before 14:00 on any given day, Monday to Friday.
- 8.5** Following a positive response from THOA estate officials, the owner is responsible for installation in terms of the relevant legislation and compliance certification by a qualified person
- 8.6** Any generator or other alternative supply system of a permanent/embedded nature must be installed by a person deemed competent in terms of paragraphs (b), (c) or (d) of the definition of a competent person in Regulation 1 of the General Machinery Regulations:1988 as amended, and in compliance with the OSH Act of 1993 as amended. Installation must further comply with SANS 10142-1:2017, edition 2 (item 7.12 refers) as amended and a Certificate of Compliance must be issued. A copy of the certificate must be lodged with the THOA who will attach this to the accepted site plan, a copy of which is retained at the office for future reference.

9 Accountability

Whilst neighbours are asked to acknowledge any installation and Estate officials to consider acceptance, this is on the basis of potential nuisance and in consideration of architecture and aesthetics. The responsibility and accountability for ensuring any installation complies with the relevant Legislation and Standards, including obtaining of a Certificate of Compliance, rests entirely with the owner.

10 Use of Portable Generators for Home Owners

Portable Generator Hazards

The following information has been provided by Danny Talhami, an Estate resident and practising Electrical Engineer. It is intended to provide assistance to any person installing or thinking of installing a portable generator. It does not, however, replace the safety guidelines or manufacturing guidelines provided with the generator. It is important to note that where there is any doubt, a professional electrician should be consulted with regards to any specific installation.

The Dangers of Electrical or Portable Generators

Regular power failures experienced by many Homeowners has resulted in the purchase of generators and there has been much said in the media about the boom in sales for generator suppliers. The question is how much does the average person understand about the dangers brought about by these electrical generators?



Any Generator installed should comply with the South African National Standard (SANS 10142-1:2017 Edition 2 as amended) for the wiring of premises Clause 7: 12 which prescribes the minimum safety requirements for the installation of low voltage generators.

Check Your Insurance Policy

This is a legal requirement and failure to comply with these requirements could possibly invalidate any home owners insurance should it be established that a fire or injury was caused as a result of the incorrect connection of the generator. This should be carefully checked with your Insurer or Broker and it should be declared on your policy and noted that you have now installed a generator.

These Electrical Generators or Portable Generators are useful when temporary or remote electric power is needed, but they also can be hazardous. The primary hazards to avoid when using a generator are carbon monoxide (CO) poisoning from the toxic engine exhaust, electric shock or electrocution, fire and burns.

Every year, people die in incidents related to portable generator use. Most of the incidents associated with portable generators involve Carbon Monoxide poisoning from generators being used indoors or in partially-enclosed spaces with inadequate open air ventilation. .

Carbon Monoxide Hazards

When used in a confined space, generators can produce high levels of Carbon Monoxide within minutes. When you use a portable generator, remember that you cannot see or even smell Carbon Monoxide. Even if you do not smell exhaust fumes, you may still be exposed to Carbon Monoxide fumes. Carbon monoxide at high levels can kill a person in minutes. Carbon monoxide (CO) is produced whenever any fuel such as gas, oil, petrol, diesel, wood, or charcoal is burned. Hundreds of people die accidentally every year from Carbon Monoxide poisoning caused by malfunctioning or improperly used fuel-burning appliances. Even more die from Carbon Monoxide Poisoning produced by idling cars. Foetuses, infants, elderly people, and people with anaemia or with a history of heart or respiratory disease can be especially susceptible.

**IF YOU START TO FEEL SICK, DIZZY OR WEAK WHILE USING A GENERATOR ,
GET TO FRESH AIR RIGHT AWAY . DO NOT DELAY .**



Follow these safety tips to protect against Carbon Monoxide (CO) poisoning.

Protection from CO Poisoning

- **NEVER** use a generator inside homes, garages, enclosed spaces, sheds, or similar areas, even when using fans or opening doors and windows for ventilation. Deadly levels of carbon monoxide can quickly build up in these areas and can linger for hours, even after the generator has shut off.
- Follow the instructions that come with your generator. Locate the unit outdoors and far from doors, windows, and vents that could allow CO to come indoors.

Electrical Hazards

- Generators pose a risk of shock and electrocution, especially if they are operated in wet conditions. If you must use a generator when it is wet outside, protect the generator from moisture to help avoid the shock/electrocution hazard, but do so without operating the generator indoors or near openings to any building that can be occupied in order to help avoid the Carbon Monoxide (CO) hazard. Operate the generator under an open, canopy-like structure on a dry surface where water cannot reach it or puddle or drain under it. Dry your hands, if wet, before touching the generator.
- If you have not had your generator wired into your premises by a qualified electrician only connect appliances to the generator using heavy-duty extension cords that are specifically designed for outdoor use. Make sure the wattage rating for each cord exceeds the total wattage of all appliances connected to it. Use extension cords that are long enough to allow the generator to be placed outdoors and far away from windows, doors and vents to the home or to other structures that could be occupied. Check that the entire length of each cord is free of cuts or tears and that the plug has all three prongs. Protect the cord from getting pinched or crushed if it passes through a window or doorway. (**Please note: It is not recommend that you use the generator in this way and you should install the generator correctly using a licensed electrician**).
- **NEVER** try to power the house wiring by plugging the generator into a wall outlet, a practice known as “back feeding.” This is extremely dangerous and presents a possible electrocution risk to external workers and neighbours served by the same transformer. It also bypasses some of the built-in household circuit protection devices.
- A licensed electrician or registered electrical contractor must carry out the installation and must understand and have the experience with the requirements for the wiring of switches. Incorrect wiring of all the live, neutral and earth wires could be life threatening. In addition when he has completed the installation make sure that he issues you an Electrical Certificate of Compliance.

Failure to obtain such a certificate could invalidate any insurance claims arising as a result of electrical faults or accidents.

Fire Hazards

- **Never** store fuel for your generator in the home. Petrol, Diesel, propane and other flammable liquids should be stored outside of living areas in properly-labelled, non-glass or breakable safety containers. Do not store them near any fuel-burning or heating appliance.
- Before refuelling the generator, turn it off and let it cool down. Fuel spilled on hot engine parts could ignite.
- Be extremely careful should a power failure occur at night and never use a naked flame matches or a candle near the generator or fuel tanks. Make sure you have a torch available for use when going to turn the generator on.
- It is advisable to keep a small fire extinguisher in close proximity to the generator. A 4.5 Kg Dry chemical Powder (DCP) or 2 Kg Carbon Dioxide (CO₂) fire extinguisher is recommended.

Disclaimer of Liability – The guidelines expressed in this document are not intended to infringe or replace the manufacturer's guidelines for safety and usage. The information provided in Clause 10 above, is only a suggested guideline for the safe use of portable generators. This information including, without limitation, all research, opinions or other content is not intended, nor does it constitute, consulting or other professional advice or services. Before any decision is made or any action taken which might affect the use of generators, consultation with your own electrician or professional is advised.