

To: Jeffery Slavin, Mayor
Town of Somerset

From: Larry Plummer, Town Inspector

Subject: Indoor Use Of Emergency Generators

Date: September 11, 2008

This report is in response to your request to research whether the use of indoor generators is feasible within the Town of Somerset.

It has become increasingly popular for homeowners in The Town of Somerset to install emergency standby generators. Consequently, the number of noise complaints related to emergency standby generators has been steadily increasing.

The Town of Somerset's Council has been trying to avoid future problems with the use of emergency generators through careful planning, design, equipment selection, and installation. The Town Council has recently requested that performance specifications for noise be included in the permit request for emergency generators. Standby generators, are required to meet Montgomery County's more restrictive nighttime standard of 55 dBA (A-weighted decibels) at the nearest receiving residential property line.

Montgomery County Guidelines For Out Door Installations

Things to consider when planning for the installation of an emergency standby electric generator:

1. Purchase the quietest generator available. It is much easier to spec equipment that can meet the standard than try to retrofit equipment with noise attenuation features later.
2. The physical location of the generator should be chosen to minimize noise and exhaust emissions impacts to both on-site occupants and all nearby neighbors.
3. The Montgomery County Air Quality Ordinance, Chapter 3 of the Montgomery County Code, prohibits the discharge of any visible emission (exhaust smoke) from a generator into the atmosphere.
4. Montgomery County Zoning requires that generators be within the side set backs and not to extend no further that 5 feet into the front and rear set backs.
5. Schedule the recommended periodic testing of generators to occur at times when building occupants and nearby neighbors are least likely to be disturbed.

Give careful consideration to the choices of fuel types (diesel, natural gas, or LP gas) available for your specific generator. There are advantages and disadvantages for each type fuel. Diesel powered generators might be cheaper to operate, but they typically produce more visible emissions and require a large fuel.

Montgomery County does not prohibit the installation of indoor generators as long as all fire, building and mechanical codes are met.

International Codes

The research revealed that the 2006 edition of the International Building, Fire, and Mechanical Codes do not prohibit the use of indoor generators. These Codes do have certain requirements that must be met for ventilation, for fire protection and for the location and accessibility of indoor generator units.

Alternative Indoor Emergency Generator Solution That Is Noise Free

PowerReady Indoor Power System: Approved Gas Free, Silent Generator

A company called PowerReady International, which has been selling its battery-powered generator since March, has developed an indoor power system that requires no gas, no permit and no maintenance.

General manager Bill Dato said demand for the system has been high as South Floridians seek alternatives for hurricane season.” There are so many problems with traditional generators, these units fit much better with the whole green movement,” Dato said. He said the units provide 12,000 watts of power, and demonstrated with a unit in the office that is used to power a microwave, refrigerator, lights, a television and computer. “Obviously it is great for the home, but we have high demand from the medical community as well,” Dato said. “The system provides continuous power in the event of any kind of outage, which needless to say is fairly important.”

Maria Arias of Boca Raton has been an indoor power system owner since March. She said the system gave her peace of mind as Tropical Storm Fay approached. “It was very comforting to know I had an easy-to-use backup power system. I am not mechanically inclined, and this system is so easy to use,” she said. Arias said she never owned a generator but stayed with friends during power outages and disliked the disruption and the feeling she was a burden. “Between the fumes emitted, the gas it took to run [a generator] and the difficulty in setting them up, I just didn’t care for them,” she said.

Dato said the price of the system is \$9,000. There also is a financial incentive to buy one: businesses get federal tax breaks up to 30 percent of the unit’s cost and individuals can receive a \$2,000 tax credit.

Conclusions

The International and Montgomery County Codes do not prohibit the installation and use of Indoor Emergency Generator as long as certain requirements for mechanical, fire and building codes are met.

The Town can certainly recommend the installation of indoor emergency generators but cannot require it under the current Town code. The noise coming from the ventilation apparatus of the indoor emergency generator may indeed violate the 55 dbl limits anyway. The potential for carbon dioxide poisoning also exist if the ventilation systems fail to operate properly.

The PowerReady indoor power system seems to have promise. The Town can suggest to builders that this system may be a great alternative to conventional emergency generators: however, since this product is new, all the pros and cons have not been realized.

Recommendations

- * That the Town Council request sound mitigation plans for emergency generators
- * That the Town inform contractors of the PowerReady indoor system
- * That the Town explore changing the Town Code

I hope this report is useful, if you any questions, please let me know.

CC: Town Council