**Town of Bethlehem**

**Residential Generators**

**Guidelines for Proper Installation and Inspections**

**PURPOSE**

This handout was created to aid residents and installers with understanding the permit and inspection process to install a residential standby generator. Included are the required permit, items that must be available to the inspector at the construction site, and the items that the inspector will be verifying in the field during the inspection process.

**Permit Required**

**Generator Permit**- to include:

- Site plan showing location of generator (to scale), lot lines, wetlands (if applicable), setbacks, house and other structures.

- The manufacturer’s installation manual and the permits must remain on the job site at all times.

**Electrical Inspection**- to include:

- Load analysis (calculations) identifying the electrical loads selected, to verify generator and transfer switch is appropriately sized for the designated loads.

- One line diagram for wiring installation and conduit size.

**Gas Inspection**

-Verified by Building Inspector or Fire Chief

**General Requirements**

- Must be at least five feet (5’) from combustibles and building openings (doors, windows, vents, etc.)

- Electrical conduit must be a minimum of 18” below grade.

- Gas line must be a minimum of 12” below grade.

**Inspections**

**PRIOR TO ANY BACKFILLING. Contractors are responsible for scheduling and attending their own inspections.**

**Rough Inspection:**

Electrical underground-

- Generator placed as shown on plan.

- Pad for generator as proposed.

- All conduit shall be placed a minimum of 18” below grade.

- Conduit to be laid on a bed of sand.

- Backfill to be sand for a minimum of 6” above conduit.

- Warning Tape available for placement during backfill.

- Conduit approved for use.

Gas pipe install & pressure test must be approved by Fire Dept prior to backfill.

Final Inspection:

Electrical-

- The electrician [or his representative] must be on site to open all equipment to allow for the proper inspection.

- All electrical panels connected to generator shall be clearly labeled as the “Emergency Panel”.

- The electric meter and the main electrical panel are required to have a sign indicating the type and generator location.

- A warning sign shall be installed at the normal power source equipment stating: “WARNING- SHOCK HAZARD EXISTS IF GROUNDING ELECTRODE CONDUCTOR OR BONDING JUMPER CONNECTION IN THIS EQUIPMENT IS REMOVED WHILE ALTERNATE SOURCE(S) IS ENERGIZED.” (non-separately

derived system)

- If the manufacturer’s specs indicate that CO detectors are to be installed then an inspection of the house shall be made to verify that they are installed per these manufacturer’s specs.

Gas- must be approved by Fire Dept

- Black iron pipe must be protected from corrosion.