TYPICAL PROCEDURE FOR GENERATOR INSTALLATIONS:

WHAT YOU WILL NEED:

- KNOW THE LOCATION YOU WANT TO INSTALL YOUR GENERATOR AND PROPANE TANK

- A MECHANICAL CHECKLIST LOCATED ON THIS WEBSITE OR IN THE BUILDING DEPARTMENT – THIS WILL TELL YOU THE DEPARTMENTS YOU NEED TO GET APPROVAL FROM FOR THE LOCATION OF THE GENERATOR AND PROPANE TANK. (YOU WON’T ALWAYS NEED TO SEE ALL OF THE DEPARTMENTS AS IT DEPENDS ON YOUR PROPOSED LOCATIONS).

- PLOT OR SITE PLAN AND MAYBE A SEPTIC LOCATION IF NEEDED (THIS MAY ALSO BE AVAILABLE FROM THE MICROFICHE MACHINE IN THE BUILDING/HEALTH DEPARTMENTS IF YOU DO NOT HAVE THEM)

DISTANCES FOR PROPANE TANKS VARY BASED ON IF IT IS INGROUND OR ABOVE GROUND.

THE BUILDING DEPARTMENT REQUIRES THAT AN INGROUND TANK IS TYPICALLY 10 FEET FROM A PROPERTY LINE AND 10 FEET FROM THE OVERHANG OF THE DWELLING AND ABOVE GROUND IS TYPICALLY 3-5 FEET FROM ANY WINDOW, AIR INTAKE OR DOOR OPENING AND 10 FEET FROM ANY SOURCE OF COMBUSTION.

GENERATORS ARE TYPICALLY 5 FEET FROM THE DWELLING. HOWEVER, THERE MAY BE EXCEPTIONS BASED UPON CERTAIN MANUFACTURERS.

EACH OTHER DEPARTMENT HAS THEIR OWN SET BACK REQUIREMENTS THAT YOU WILL NEED TO OBTAIN FROM THEM. THEIR NUMBERS ARE LOCATED ON THE MECHANICAL CHECKLIST.

SITE PLAN REVIEWS ARE DONE BETWEEN 8-10AM DAILY.

ONCE YOU OBTAIN AN APPROVED LOCATION, YOU WILL HAND THE COMPLETED CHECKLIST TO THE BUILDING DEPARTMENT WITH ANY NECESSARY FEE ($25.00 FOR SITE APPROVAL) THEN YOU CAN INFORM YOUR ELECTRICIAN AND PROPANE COMPANY TO OBTAIN THEIR PERMITS FOR THE ACTUAL WORK, (FEES ALSO APPLY BASED UPON COST). HOMEOWNERS MAY CHOOSE TO ACT AS THE CONTRACTOR TO SPEED UP THE PROCESS AND CAN OBTAIN THE PERMIT FOR THE ELECTRICAL AND PROPANE ON THEIR OWN.

IF YOU HAVE ANY QUESTIONS CALL THE BUILDING DEPARTMENT AT 203-563-0177
Appendix I Container Spacing

This Appendix is not a part of the requirements of this NFPA document, but is included for information purposes only.

NOTE 1: 5 ft minimum between relief valve discharge and external source of ignition (air conditioner), direct vent, or mechanical ventilation system (attic fan).

NOTE 2: If the DOT cylinder is filled on-site from a bulk truck, the filling connection and vent valve must be at least 10 ft from any external source of ignition, direct vent, or mechanical ventilation system.

(For SI Units: 1 ft = 0.3048 m)

Figure I-1 DOT Cylinders.

(This figure for illustrative purposes only; text shall govern.)
NOTE 1: Regardless of its size, any ASME tank filled on-site must be located so that the filling connection and fixed liquid level gauge are at least 10 ft from any external source of ignition (i.e. open flame, window A/C, compressor, etc). Intake to direct vented gas appliance or intake to a mechanical ventilation system.

(For SI Units: 1 ft = 0.3048 m)

Figure I-2 Aboveground ASME Containers.

(This figure for illustrative purposes only; text shall govern.)
NOTE 1: The filling connection and vent from liquid level gauge on tanks filled at the point of installation must be at least 10 ft from any external ignition source, direct vent or mechanical ventilation.

NOTE 2: Minimum distances for underground containers shall be measured from the relief valve and filling or liquid level gauge vent connection at the container, except that no part of an underground container shall be less than 10 ft from a building or line of adjoining property which may be built upon.

Figure I-3 Underground ASME Containers.

(This figure for illustrative purposes only; text shall govern.)
ANODE BAGS

NFPA 58 REQUIRES THE PROTECTION OF UNDERGROUND TANKS IN ACCORDANCE WITH GOOD ENGINEERING PRACTICE.

Cathodic Protection is the accepted method of protecting underground metal structures. Tanks should be protected by installing anode bags to tank anode bracket or lifting lug by Cadweld method or by connecting wire directly to anode lead provided by tank manufacturer. They should be coated completely and isolated electrically with the installation of insulated unions.

Magnesium Anode Bags are:
91% magnesium, 3% zinc, 6% aluminum alloy.

The anodes are prepackaged in cloth bags with low resistivity, quick wetting prepared back fill consisting of 75% hydrated gypsum, 20% bentonite, and 5% sodium sulphate.

Anode bag is placed into wet hole at least 2' from the tank and at a depth equal to the tank. Wet area above anode.

CONNECTING ANODE LEADS

Step 1
If lead is already attached strip approximately 3/4" insulation from leader end.

Step 2
Insert tank lead and anode lead into copper ferrule.

Step 3
Crimp ferrule to secure anode leads.

<table>
<thead>
<tr>
<th>RMI Part No.</th>
<th>Catalog Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>MG-17</td>
<td>17#</td>
</tr>
<tr>
<td>MG-9</td>
<td>9#</td>
</tr>
<tr>
<td>MG-5</td>
<td>5#</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAB133-2H</th>
<th>Adapter sleeve, #10 stranded</th>
</tr>
</thead>
<tbody>
<tr>
<td>1000</td>
<td>Combination wire cutter &amp; ferrule crimper</td>
</tr>
</tbody>
</table>
500 GAL UNDERGROUND

SUGGESTED DESIGN FOR WET AREAS AND FLOOD ZONES

EXCAVATION 5' X 12' X 7'11"
WIDE LONG DEPTH

DEAD SAND FOR BACKFILL

9311 LB TARE WEIGHT VS 4,165 BUOYANT FORCE

4,500 LB SLAB / 150 LBS/CF (4' X 10' X 9'"

540.1 CBS VS 4,165

NOTE:
62" TOP OF SLAB TO FINISH GRADE
10 FT CLEARANCE BUILDINGS + DROP LINES

SLAB CONCRETE

4 ER TIEDOWN LOOPS
5' ON CENTER
6" FROM EDGE OF SLAB

9" THICK MINIMUM
MECHANICAL PERMIT CHECKLIST
(For inground and above ground oil/gas tanks, A/C units, hot tubs, pool equip, service pedestals and generators)

<table>
<thead>
<tr>
<th>Property Address</th>
<th>Parcel #</th>
<th>Type of Equipment (Oil/Gas Tank, A/C Unit, etc)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Applicant’s Name</th>
<th>Applicant’s Address</th>
<th>Phone #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property Owner’s Name</th>
<th>Address</th>
<th>Phone #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Email Address

Description/Location of Proposed Work: ____________________________________________________________
__________________________________________________________________________________________

APPROVALS REQUIRED

<table>
<thead>
<tr>
<th>SEQUENCE</th>
<th>HEALTH DEPARTMENT: Sanitarian 8:00am-10:00am</th>
<th>CHECKED</th>
<th>PERMIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Please bring SITE PLAN showing location and distances from well, septic system and main structure.</td>
<td></td>
<td>563-0174</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>WETLANDS REVIEW: Dir. Env. Affairs 8:00am-10:00am-</th>
<th>CHECKED</th>
<th>PERMIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td>563-0180</td>
<td>Please bring SITE PLAN, WITH KNOWN WETLANDS, LIMITS AND REPORTS, showing distance from watercourses, and wetlands.</td>
<td>Attach site Plan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EROSION AND SEDIMENT CONTROL: P&amp;Z 8:00am-10:00am</th>
<th>CHECKED</th>
<th>PERMIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td>563-0180</td>
<td>Please bring SITE PLAN showing all proposed grading, structures, limit of disturbance, and E&amp;S controls.</td>
<td>Attach Plot Plan</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ZONING PERMIT: Zoning Enf. Officer, 8:00am-10:00am</th>
<th>CHECKED</th>
<th>PERMIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td>563-0185</td>
<td>Please bring SITE PLAN showing all existing structures with distances from property lines, aquifers and dwelling. ** An As-Built Survey may be required**</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FIRE MARSHALL (Wilton – 203-834-6249 – Georgetown – 203-544-8933)</th>
<th>CHECKED</th>
<th>PERMIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Call respective department for requirements.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>BUILDING DEPARTMENT: Building Official, 7:30am-4:00pm</th>
<th>CHECKED</th>
<th>PERMIT #</th>
</tr>
</thead>
<tbody>
<tr>
<td>563-0177</td>
<td>Please bring, Mechanical License copy and or and original letter from the license holder giving that person permission to pull the permit on the licensee’s behalf with a copy of the license and all other approvals required above.</td>
<td></td>
</tr>
</tbody>
</table>

THE INFORMATION REQUESTED ABOVE IS PRELIMINARY AS ADDITIONAL MATERIAL MAY BE REQUIRED UPON FURTHER REVIEW OF THE PROJECT.

NO FINAL INSPECTION WILL BE CONDUCTED UNTIL THE ABOVE NOTED DEPARTMENTS HAVE GIVEN THEIR FINAL APPROVALS WHERE APPLICABLE TO THE BUILDING DEPARTMENT.
TYPICAL GENERATOR GUIDELINES

New Installation Guidelines for most Stationary Air-Cooled 7, 10, 13, 16 and 18 kW Generators.

The National Fire Protection Association has a standard for the installation and use of stationary combustion engines. That standard is NFPA 37 and its requirements limit the spacing of an enclosed generator set from a structure or wall.

NFPA 37, Section 4.1.4, Engines Located Outdoors. Engines, and their weatherproof housings if provided, that are installed outdoors shall be located at least 5 ft. from openings in walls and at least 5 ft. 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 1 hour.

2. The weatherproof enclosure is constructed of noncombustible materials and it has been demonstrated that a fire within the enclosure will not ignite combustible materials outside the enclosure.

Annex A Explanatory Material
A4.1.4 (2) Means of demonstrating compliance are by means of full scale fire test or by calculation procedures.

Because of the limited spaces that are frequently available for installation, it has become apparent that exception (2) would be beneficial for many residential and commercial installations. With that in mind, Generac contracted with an independent testing laboratory to run full scale fire tests to assure that the Generac enclosure would not ignite combustible materials outside the enclosure.

The criteria was to determine the worst case fire scenario within the generator and to determine the ignitability of items outside the engine enclosure at various distances. The Generac enclosure is constructed of non-combustible materials and the results and conclusions from the independent testing lab indicated that any fire within the generator enclosure would not pose any ignition risk to nearby combustibles or structures, with or without fire service personnel response.

Based on this testing and the requirements of NFPA 37, Sec 4.1.4, the guidelines for installation of the generators listed above are changed to 18 inches (457mm) from the back side of the generator to a stationary wall or building. For adequate maintenance and airflow clearance, the area above the generator should be at least 4 feet with a minimum of 3 feet at the front and ends of the enclosure. This would include trees, shrubs and vegetation that could obstruct airflow. See the diagram on the reverse of this page and the installation drawing within the owner’s manual for details.

Generator exhaust contains DEADLY carbon monoxide gas. This dangerous gas can cause unconsciousness or death. Do not place the unit near windows, doors, fresh air intakes (furnaces, etc.) or any openings in the building or structure, including windows and doors of an attached garage.
TYPICAL GENERATOR GUIDELINES

No windows or openings in the wall permitted within 5 feet from any point of the generator.

60 inches Existing Wall 18 inches Minimum Distance 60 inches

36 inches

Top of Generator

36 inches

60 inches

Clearance from windows, doors, any openings in the wall, shrubs or vegetation over 12" in height

Clearance from the ends and front of the generator should be 36 inches. This would include shrubs, trees and any kind of vegetation. Clearance at the top should be a minimum of 48 inches from any structure, overhang or projections from the wall. The generator should not be placed under a deck or other structure that is closed in and would limit or contain air flow.

48" Minimum

60" Recommended Minimum From Ends

18 inches Minimum

Generator

Always check with Building official to confirm distances as noted above.