



**State of Connecticut
Department of Public Health
Drinking Water Section**

**Guidelines for Recipients of Drinking Water
State Revolving Funds for the
Emergency Power Generator Program**

INTRODUCTION: The Department of Public Health (DPH) Drinking Water Section (DWS), hereafter referred to as “the department”, has developed a streamlined purchase process under the Drinking Water State Revolving Fund (DWSRF) for public water systems to purchase and install emergency power generator systems costing less than \$100,000. Past significant storms that hit Connecticut left significant portions of the state without power for prolonged periods of time. Power outages were experienced by many small public water systems during these storms leaving many residents without water service until normal street power was restored. The DPH has an Emergency Power Generator Program within the DWSRF to assist public water systems in acquiring back-up electrical power systems to operate their critical drinking water facilities during a power outage, and comply at the same time with the Regulations of Connecticut State Agencies, Section 19-13-B102(w). This program may subsidize a percentage of the eligible project cost of permanently installed stand-by generator systems (i.e. stationary). The remaining balance after the subsidy is applied will be provided in the form of a low interest DWSRF loan (see section J). These guidelines are intended to outline the requirements of this Program as well as provide useful information to public water systems utilizing emergency generator systems.

For the purposes of these guidelines and this program, the term “emergency power generator system” or “generator system” refers to an emergency back-up electrical power system for a critical drinking water infrastructure facility and may be comprised of a generator, generator mounting pad, transfer switch, associated electrical components to make connections to existing electrical control panels, fuel storage tank(s), security fencing and associated plumbing components to connect fuel lines to the generator.

You should read these guidelines and provide them to the engineer or contractor who will be designing your generator system to ensure that all the applicable Section 1 requirements will be included in your design.

SECTION 1: PROGRAM REQUIREMENTS

A. Minimum Requirements for All Generator Systems:

1. The generator system shall be minimally sized to provide sufficient power to supply the maximum starting power demands and the running demands of all critical components of the water system facility or facilities which it will be designed to operate during an emergency. The generator system may provide power to appurtenances that can be directly related to the PWS’s ability to operate and maintain the water system (i.e. pump house lighting, water treatment systems, water system related telemetry, circuitry, etc.). Other factors allowed in generator sizing can include generator operating efficiency and electrical demands of future water system electrical components that are currently planned or may reasonably be expected to be installed over the useful service life of the generator.
2. The generator system shall be installed with an automatic transfer switch (for a stationary generator) or a manual transfer switch (for a portable generator) and shall include a written **Emergency Generator Activation Plan**. A copy of the plan will have to be submitted to DPH along with the “DPH Authorization to Commence

Work Request Form". Also, the plan will be reviewed at the final installation inspection of the generator.

The **Emergency Generator Activation Plan** shall contain the PWS's preparations for and proposed responses to any potential disruption of the PWS's supply of water to its consumers due to a loss of power and shall include, but not be limited to, the following information:

- a. How an adequate and safe supply of water and uninterrupted service will be maintained to the PWS's consumers in the event of a loss of street (line) power.
- b. How the power loss will be identified by the PWS and the name and contact information of the individual(s) responsible to ensure the generator system is operating before water system consumers lose water pressure.
- c. Procedures for notifying the PWS's consumers and local emergency management officials, including the department and the chief elected official of any municipality and any local health department or district health department in which the PWS is located, in accordance with section 19-13-B46 of the Regulations of Connecticut State Agencies (RCSA), of the status of the PWS prior to, during, and following an event during which there is a disruption in the supply of water to the PWS's consumers due to a loss of power. The procedures shall contain the name and contact information of the individual(s) responsible for reporting the loss of power and the names and contact information for the department, chief elected official and local health department/district. Procedures for maintaining records of such notifications shall also be provided.
- d. A refueling plan to ensure the generator will be provided with sufficient fuel to operate the water system facility for seven consecutive days without street power. The plan shall contain the name and contact information of the refueling company and record keeping procedures for fuel deliveries. Maintaining a contract with such fuel company is recommended.
- e. The name and phone number of the individual(s) or business (es) that will provide servicing for the generator system should it fail to operate during an emergency loss of power and record keeping procedures for servicing events.
- f. The name and phone number of the electric utility company to which you report a loss of power and the name and contact information of the individual(s) who will be responsible to report the PWS's power outage and maintain a dialogue with the utility company until power is restored. Record keeping procedures for communication with the electric utility company shall be provided.
- g. A maintenance schedule of the generator system maintenance activities, including routine test operation of the generator at frequencies specified by the generator manufacturer. Such testing shall be made under electrical loads equivalent to what the generator will experience operating the water system facility during a loss of street power. A copy of the generator manufacturer's routine maintenance specifications shall be included with the plan. The plan shall also include record keeping procedures for generator maintenance activities and the location of where those records will be maintained (see section 2.C).

The plan shall be kept up to date and on file at the PWS. The PWS shall make the plan available to the department for review at the time of a sanitary survey and upon the request of the department.

3. The PWS and their contractors shall ensure that the materials and installation of the generator system complies with all local, state and federal building codes, permitting requirements including but not limited to: local building/electrical permits, potential emissions permitting from the Connecticut

Department of Energy and Environmental Protection (DEEP) and DPH Water Company Land permitting.

4. The generator must be located on land owned by the PWS, or documentation of an existing easement or right-of-way shall be provided. The installation of a generator system is typically considered “service work” rather than “construction work” and is not subject to federal prevailing wage rates as required for construction contracts under the federal Davis-Bacon and Related Acts. However, if construction contracts exceeding \$2,000 are necessary for the installation of a generator system then federal prevailing wage rates for construction workers would be required. Minor construction activities directly related to a service contract such as security fencing or short distances of trenching for the installation of propane fuel lines and electrical conduit would be considered incidental to the service contract and not subject to prevailing wage rates. ***Any significant construction related activities, necessary for the generator system installation, that will exceed \$2,000 must be discussed with the DWS in advance of getting price quotes from your contractor to determine if prevailing wage rates would be required.***

B. Eligibility of generator systems intended to power additional facilities:

The DWSRF Program cannot finance non-drinking water related infrastructure projects. As a result, if your generator system will also be providing power to non-drinking water related equipment, then the DWSRF program can only provide financing for the portion of the generator system that is necessary to operate the drinking water system/facility.

If your generator system will be used to provide emergency power to a facility such as a school or nursing home during a power outage then you may need to determine your power needs for water system components and your power needs for non-water system components separately. The DWSRF may be used to provide financing only for the costs associated with providing power to drinking water components and/ or other equipment that is directly related to the provision of a safe and adequate water supply to customers during a loss of normal utility power.

Example: If your generator will provide emergency power for a school and your drinking water related electrical components require 40 kilowatts (kW) of power and the rest of the school’s electrical components require 30 kW of power then you will need an 70 kW generator to operate both. In this example, the percentage of your 70 kW generator system cost that is eligible for DWSRF financing would be calculated as follows:

$$(40 \text{ kW} \div 70 \text{ kW}) \times 100 = 57.14\%$$

If the 70 kW generator system costs \$50,000 then the DWSRF would finance 57.14% of this cost or:

$$\$50,000 \times 57.14\% = \$28,570$$

The PWS will be responsible for paying for the remaining \$21,430 or financing it through other means. A safety factor to install a larger generator than required to provide power to the water system components may be permitted, provided that the oversizing is justified (for future water system needs, overload protection, operational efficiency and reliability, etc.).

C. Additional Requirements for Liquid Fueled Generators Only (Diesel, Gasoline, Oil or Kerosene):

- **NOTE:** Liquid fueled generators *are not recommended* for installation in designated watershed areas or near drinking water wells and alternative natural gas or propane generators should always be considered.
- Liquid fueled generators and their associated fuel lines and fuel storage tanks shall be located as far removed from sources of public drinking water wells as practical and comply with the minimum separation distances shown in Table 1. The required separation distance is dependent on the withdrawal rate of the well pump installed for the water well.

Table 1
Minimum Separation Distances between Public Water Supply Wells
and Liquid Fueled Generators, Liquid Fuel Lines and Liquid Fuel Storage Tanks

Well Pump Withdrawal Rate (in gallons per minute)	Minimum Separation Distance From Public Water Supply Well to Liquid Fueled Generator, Fuel Lines and Fuel Tanks (in feet)
Less than 10	75
10-50	150
Greater than 50	200

- All fuel tanks shall be located above ground and provided with a containment structure capable of containing at least 110% of the volume of the fuel tank.

D. Obtaining Price Quotes from Prime Contractors

The DPH is authorizing DWSRF generator applicants to utilize a “3 quote” procurement method for selecting a prime contractor to complete the work associated with their generator system project as long as the total project cost is less than \$100,000. Municipalities may utilize their existing open competitive bidding procedures, if necessary, to secure their prime contractor. All generator projects that exceed \$100,000 must follow the DWSRF base program procurement procedures for open competitive bidding.

If you will be using DWSRF funding **only to purchase materials** for your generator system then a minimum of 3 price quotes must be obtained for those materials from 3 different retailers or wholesalers licensed and authorized to sell such materials in Connecticut. Please note that purchase only agreements will not be executed until after the borrower has submitted all certifications and after final inspection of the installed and operational generator system is performed by DPH.

If you will be using DWSRF funding **to purchase materials and install** all or portions of your generator system then a minimum of 3 price quotes must be obtained from 3 different prime contractors that specialize in the installation of generator systems and licensed to conduct business in Connecticut.

Applicants **must** provide all prime contractors the same information on which to prepare their price quotes so that quotes for equivalent generator systems obtained are comparable. This information should include at a minimum:

1. Generator and/or generator system (as applicable to your project) specifications for your project.
2. A copy of the notice from DPH entitled: “[Emergency Power Generator Program - Important Information For Contractors Preparing Price Quotes](#)”.
3. If the PWS is a non-profit organization, a completed [CERT-141 tax-exempt](#) form so that tax will not be included in the price quotes.

The DPH will authorize the work to be performed by the prime contractor that submits the lowest responsible price quote unless there are mitigating circumstances that warrant the DPH to authorize a higher priced prime contractor to perform the work. Adequate justification must be provided to the DPH if an applicant desires to utilize a prime contractor that did not submit the lowest price quote. The DPH will review such justifications and render appropriate decisions on a case-by-case basis.

The PWS may only use their existing propane contractor rather than obtaining 3 separate price quotes for the propane equipment installation associated with their generator system project, if they can justify in writing that their current contract was competitively procured and provide verification that the contractor will provide priority service during emergencies.

Funding from this program cannot be used for the cost of fuel for the generator system or for the leasing of any fuel tanks. The cost of fuel and the leasing of fuel tanks is the responsibility of the PWS.

E. Disadvantaged Business Enterprise (DBE) Compliance

For generator projects costing less than \$100,000, compliance with the DBE requirements **is not required**.

F. American Iron and Steel (AIS) Requirement

The Consolidated Appropriations Act (H.R. 3547), enacted as Public Law (P.L.) 113-76 include a “Use of American Iron and Steel” (AIS) provision, requiring iron and steel products use in DWSRF-funded projects to be produced in the United States. Subsequent annual appropriations have continued this requirement. The EPA issued [guidance](#) clarifying how requirements will be implemented and how compliance will be documented. More detailed information on AIS requirements can be found on EPA’s AIS [website](#). **It is critical that you make your contractor(s) aware of this requirement.** EPA’s guidance provides clarity on specific iron and steel products that are required to comply with AIS requirements and other products containing steel and iron that do not have to comply.

Examples of iron and steel products that may be common to generator projects that are required to comply include, but are not limited to:

- Steel fuel tank(s)
- Cast iron pipe and fittings
- Iron or steel valves
- Corrugated Stainless Steel Tubing (CSST)
- Reinforced pre-cast concrete generator pads
- Rebar and wire mesh (for poured concrete work)
- Steel security fencing
- Miscellaneous iron or steel fittings, clamps, screws, nuts, bolts, etc.

Examples of products that may contain iron and steel that **are not** required to comply include:

- Any electric powered equipment or any component of an electrical distribution system including generators, transfer switches, electrical control/service panels, conduit, connectors, junction boxes and electrical fittings.

Please refer to EPA’s [American Iron and Steel guidance document](#) for further details regarding products covered by this requirement.

The EPA has issued a [national public interest waiver for “de minimis” incidental components](#). This waiver allows a project to include a small amount of incidental iron or steel components that do not meet the AIS requirement, or their provenience cannot be determined. The total amount of these products cannot exceed 5% of the total materials cost for the project and an individual item cannot exceed 1% of the total cost of materials.

The EPA guidance also includes a process for requesting project-specific waivers, should one be needed. Please contact us immediately if a project specific waiver may be necessary for your project. Our staff will work with you to address your project’s compliance with AIS requirements.

AIS Compliance Documentation Requirements:

In order to document the materials used in your project, the “[Certification of Compliance – Use of American Iron and Steel](#)” must be completed by the prime contractor and submitted to the DPH upon completion of the project. **Please note that no DWSRF payment requests may be processed until this form is received.** This form requires the contractor to list the iron and steel products used in the project that meet the AIS requirement and any non-compliant or undocumented products that are covered by the “de minimis” waiver. In addition, applicants must be provided with a ***Manufacturer’s Certification Statement of AIS Compliance*** for each different iron or steel product permanently incorporated into the completed project. The EPA’s American Iron and Steel Requirements Guidance provides information on this requirement and includes two examples of manufacturer’s certification statements that may be used. Contractor’s must request and receive these certification statements from the manufacturer and must provide these statements to the applicant for their records. ***It is highly recommended that the applicant verify and ensure that the Contractor is in possession of the mentioned AIS certification statement(s) of compliance before the actual installation work begins, in order to avoid delays in payment by the State or even potential denial of payment.*** The manufacturer’s certification statements must be maintained in the applicant’s project records and will be reviewed during DPH site visits. These certification statements do not need to be submitted to the DPH unless specifically requested by the DPH.

G. Requesting DPH Authorization to Secure your Contractor and Commence Work:

After 3 price quotes have been obtained from the appropriate parties described in Section 1.C, all DWSRF applicants must complete the [DPH Authorization to Commence Work Request Form](#). This Form must be submitted to the DWS with any and all relevant materials requested on the Form, including the 3 price quotes for equivalent generator, components & services that were obtained. If the information that is provided to DPH with this Form satisfies DWSRF requirements, then the DPH will issue written authorization for you to secure your contractor and commence the work associated with your project. This authorization does not relieve applicants from obtaining any other necessary federal, state or local permits or authorizations that may be required for your project. Once the authorization from DPH is received, the PWS should notify the approved contractor(s) to proceed and sign a contract with them, then submit a copy of the fully executed contract to DPH Project Engineer.

H. Permitting Requirements

It is the responsibility of the PWS to obtain all necessary federal, state and local permits that may be required for their generator system project.

If the DWSRF will be providing funding for the installation of your generator system then a copy of the local building/electrical permit that has been issued for your generator system must be submitted to the DWS before you receive DWSRF reimbursement for your project.

Pursuant to CGS Section 25-32, no water company shall change the use of any water company lands without permission of the Commissioner of Public Health. The Commissioner shall not grant a permit for a change in use of class I land unless the applicant demonstrates that such change will not have a significant adverse impact upon the present and future purity and adequacy of the public drinking water supply. By attesting to the conditions described on Worksheet A within the [DPH Authorization to Commence Work Request Form](#), you provide assurance that the purity and adequacy of your water supply will not be adversely impacted as a result of this project. **This attestation will serve as your permit.**

An emissions permit may be required from the DEEP for your generator system. For your convenience, DPH is providing the guidance entitled [CT DEEP Permitting Air Emissions from New Emergency Engines](#). You should discuss these requirements with your contractor and determine if a permit from DEEP is required. If you have any questions regarding these requirements you should contact the DEEP, Bureau of Air Management at (860) 424-4152.

I. Environmental Assessment

Generator projects funded by the DWSRF are required to undergo an Environmental Assessment (EA). It is recommended that the process begin as early as possible so that this assessment does not create project delays. Before the DPH can approve the location of your generator system's components (generator, fuel tank, fencing, etc.) the identification of any potential impacts to state-listed endangered, threatened and special concern species and significant natural communities in Connecticut is required. Also, the location of these components relative to a flood plain must be verified to determine if a Flood Management Certification from the DEEP is required. In order for the DPH to begin an EA to determine if there are any possible environmental impacts, a map identifying the proposed project area where these components will be installed must be provided to the DPH. This can be on an 8.5" x 11" sheet of paper and must identify the boundaries of the general project area. Acceptable maps may be obtained from [United States Geologic Survey \(USGS\)](#) and [Connecticut Environmental Conditions Online @ University of Connecticut \(CT ECO\)](#).

J. Financial Assistance Agreement with the DPH

Under this program, the total eligible project costs will be reimbursed through a financing agreement with the State of Connecticut. Under the financing agreement, you will be provided a low- interest loan, a portion of which you will not be required to repay to the State. Of the total fundable project costs, this program may subsidize the cost for a new or replacement stand-by generator system. Subsidization levels are determined annually and detailed in the DPH's annual DWSRF Intended Use Plan. Portable generator systems can be financed but are not eligible for subsidization.

The EPGP is a reimbursement program therefore PWSs are expected to pay their contractors with their own funds when the project is complete. The financing agreement with DPH will allow PWSs to be reimbursed for those eligible EPGP expenses once the DPH receives a payment request from the PWS along with all of the contractor's invoicing. The financing agreement will include a deadline for the submission of the reimbursement payment request (typically six months from the date of execution of the agreement). Following DPH's approval of the payment request, the Office of the State Treasurer (OTT) will schedule a closing on the Permanent Loan Obligation (PLO) and the PWS will receive the reimbursement payment at the closing. Applicants will begin repaying the loan portion of the agreement in monthly payments beginning in the month following the PLO closing. There are no penalties for early repayment of the loan.

As discussed in Section F, the DWS issues, if appropriate, a written authorization to commence work on your project. Once authorized, the DPH, in conjunction with the OTT, will prepare the financial assistance agreement. The DPH will send your financial assistance agreement to your PWS representative for signature. After being signed, the agreement must be returned to the DPH for signature by the State. OTT will then schedule a closing date with the applicant. All DWSRF recipients will be responsible for providing their bank

account information to the Office of the State Comptroller (OSC) and must do so after returning the signed financial assistance agreement. Contact State Revolving Fund Financial Administrator in the Debt Management Division of the OTT at (860) 702-3000 for more information. **Interest rates on your loan will be approximately one-half of the current market rate as of the date when the agreement is prepared, with a minimum rate of 2%.** The term of your loan (in years) will be determined based on the dollar amount of the loan (not including any subsidy) that you receive, as outlined in the table below.

Table 2

Loan amount	Maximum loan repayment term
\$0 - \$10,000	3 years
\$10,000 - \$25,000	5 years
\$25,000 - \$100,000 ¹	10 years

Note that the loan amount is equal to the total eligible project cost less the eligible subsidy. Refer to the examples below:

Example 1: A new stand-by generator installation receiving a 25% subsidy and costing \$20,000 (equal to the total invoice sum) would require a loan in amount of \$15,000, repayable in a maximum of 5 years and the additional \$5,000 will be covered by the subsidy. At an interest rate of 2%, the monthly payment would be approximately \$263 for 5 years.

Example 2: A \$50,000 replacement stand-by generator receiving a 25% subsidy would result in a \$37,500 loan and a \$12,500 subsidy. At an interest rate of 2%, the monthly payment would be \$345 for 10 years.

The DPH will also need the following financial information from a PWS in order to qualify them for financial assistance:

1. An original resolution adopted by the PWS must be submitted in order to execute the financing agreement with DPH. The resolution should contain: a brief description of the project, a total dollar amount that the board/ committee approved for the generator project, date of approval and who has the authority to sign the loan documents. In the case of a municipality, the resolution must be certified and sealed by the Town/ City Clerk; in the case of a private entity, a notarized authorization must be evidenced by the appropriate parties. The resolution must contain an original signature/ stamp or embossed seal. The resolution cannot be signed by the individual authorized to sign the loan documents (Legal Authorized Representative).
2. A copy of the most recent 3 years annual financial statements showing account balances / revenues and expenses for the PWS.
3. A Certificate of Incumbency which includes the date that the Legal Authorized Representative term expires. The Certificate of Incumbency cannot be signed by the Legal Authorized Representative. The

¹ Projects with an overall cost (loan and subsidy) of \$100,000 or more are not eligible for the EPGP and must be reviewed under and follow the procurement rules of the base DWSRF program.

sealed/notarized Incumbency Certification must be submitted only when the signed loan agreement is forwarded to DPH since the certification is only valid for 30 days.

Recipients of financial assistance will be required to submit a payment request with all relevant contractor invoices to the DPH amounting to the total eligible costs of the project. Information on how to submit a payment request to the DPH will be provided to all recipients by the DPH Fiscal Office after they receive written DPH authorization to secure their contractor and commence work on their generator system project. **No payment will be processed by the DPH until the DPH receives the necessary invoices, permits and certifications detailed in Section H and a DPH site visit was performed and verified that the programmatic requirements were met and all appropriate supporting documentation are available.**

The DPH will review all payment requests. Once approved, the DPH will authorize the OTT to make a payment to the PWS's bank account registered with the State's Automated Clearing House (ACH) system through the OSC. The DPH Fiscal Office will send you information on the ACH method of payment processing after the written DPH authorization to secure your contractor and commence work on your generator project. The payment will be made following the closing on the IFO.

K. DPH Site Visits

The DPH DWS may schedule site visits to your generator system project site before, during or upon completion of your project, as necessary. DWS engineers will schedule these site visits in advance whenever possible.

L. Project Completion Certifications

The applicant is responsible for submitting the following information once their generator system installation has been completed:

1. Local Building/Electrical Permit (closed out)
2. All contractor invoices covering all project costs for DWSRF payment
3. [Certification of Completed Emergency Power Generator System Installation](#)
4. [Certification of Compliance – Use of American Iron and Steel](#)

Contractor invoices must be from the contractor and on the contractor's letterhead. Copies of canceled checks paid to the contractor will not be accepted in lieu of invoices.

SECTION 2: RECOMMENDATIONS FOR YOUR GENERATOR SYSTEM

A. Generator Selection

Permanent stand-by generators fueled by natural gas or propane with automatic transfer switches are recommended by the DPH for PWS facilities that need emergency back-up power. Some of the significant advantages that these systems offer over portable gasoline generators with manual transfer switches include:

1. Permanent stand-by generators are typically provided with enclosures that are weather resistant, designed to be permanently mounted in an outdoor location and can be bolted to a prefabricated concrete pad making them less susceptible to theft, vandalism, and inclement weather.
2. Automatic transfer switches automatically start your generator and transfer the connection from normal utility power to your generator system when you experience a loss of normal utility power. This ensures that your water customers never experience a loss of water service when normal utility power goes out.
3. Many stand-by generators with automatic transfer switches will self-test periodically to allow the generator

system to routinely turn on and operate your water system facility under normal load conditions for a short duration of time and then turn off and transfer power back to the normal utility grid. This may significantly reduce the cost of having operators periodically test the generator system under load conditions to ensure it will operate when you need it to.

4. Natural gas is the best choice of fuel for your generator if you have natural gas service available to your water system facility. This ensures a continuous supply of fuel for your generator system during a prolonged power outage without the need to arrange for fuel deliveries.
5. Propane is the preferred fuel source if you do not have natural gas service available. Propane does not present a contamination threat to groundwater like gasoline or diesel fuel, thus there are no required separation distances from propane tanks to groundwater sources. Propane has a significantly longer shelf life than diesel or gasoline and can be stored for long periods of time without deterioration.

B. Generator Fuel Storage

It is recommended that emergency power generator systems have a sufficient supply of fuel storage to operate your water system facility for seven (7) consecutive days without normal power from your electric utility company. It may be difficult to deliver fuel after a large storm as many fuel stations or fuel delivery companies may also be without power and unable to conduct business. Downed trees or power lines may also make it difficult or impossible for fuel to be delivered to your generator system for an extended period of time.

If you have a liquid fueled generator (gasoline or diesel), you should record the age of all fuel that is stored and use additives as recommended by the manufacturer of your generator to extend the useful life of these fuels.

Once the useful life of the fuel has been exceeded, all fuel tanks should be emptied, the old fuel should be properly disposed of, and new fuel should be added to the tanks. It is extremely important that a reliable supply of fuel is readily available for your generator system when a power outage occurs.

C. Generator Maintenance and Record Keeping

Routine maintenance should be performed on your generator as recommended by the manufacturer. Records of hours of generator operation should be maintained and readily available with all other records so that routine maintenance can be scheduled. All maintenance activities should be recorded in maintenance log that is kept with the PWS records.

The generator should be routinely tested as recommended by the generator manufacturer. For portable generators, the test should include connecting the portable generator to the system. All testing should be made under electrical loads equivalent to the load requirements for the water system facility under normal start-up and operating conditions. Records of the test results including the generator's ability to provide the water system facility with sufficient power to supply maximum starting power and running demands of the facility should be maintained.

D. Security

Generators, particularly portable generators, are very susceptible to theft during prolonged power outages if they are not located in areas that are continuously monitored. Careful planning should be done to ensure appropriate security measures are in place to prevent or significantly reduce the chance that your generator will be stolen, damaged or vandalized. Stand-by generators are at a much less risk of theft due to their

permanent construction.

E. Safety Measures

NEVER use a generator inside pump houses, homes, garages, crawlspaces, 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.

Location of permanent or portable generators is critical to prevent the buildup of carbon monoxide. They should be located outside any existing structures and not near any air intakes for existing structures. Make sure the exhaust from the generators is directed away from existing structures.

Portable generators are of special concern since workers may have discretion about placement. DPH suggests that such generators be located 20 feet away from any structure that may have workers inside for any length of time.

Manufacturer's safety information for your generator system should be read, understood, followed and readily available to everyone who may be operating the system.

F. Other Useful Links for Generator System Information

State of Connecticut Department of Public Health

<http://www.ct.gov/dph/publicdrinkingwater>

State of Connecticut Department of Energy and Environmental Protection

http://www.ct.gov/deep/cwp/view.asp?a=2684&Q=322184&depNav_GID=1619&depNav=|

United States Environmental Protection Agency Region 1 New England

<https://www.epa.gov/communitywaterresilience/generator-preparedness-water-utilities>

<https://www3.epa.gov/region1/eco/drinkwater/pdfs/TopTenFlu.pdf>