Well System
Emergency Response Plan

Park Place Subdivision

Mequon, WI

October, 2015

Bruce Sipiora
PPHOA Board, Water Liaison
M: 262-422-3733
O: 262-478-9733

Owner Contact Information

Name	Address	Phone	Mobile / Alternate
Bruce Sipiora - PPHOA Primary	350 W. Aster Ln, Mequon, WI	262-478-9733	262-422-3722
Chuck Barney (back-up)	110 E. Trillium Ct, Mequon, WI		262-366-5311
Tim Cummens - CTW Corp.	21500 W. Good Hope Rd, Lanon, WI	262-253-6613	414-303-3872
Roger (CTW field alternate)			414-303-3877
Cathy (CTW office)		262-253-6613	

Emergency Response Contact Information

		Emergency #	Non-Emergency #
Fire	City of Mequon	911	262-242-2530
Ambulance	City of Mequon	911	262-242-2530
Electric	We Energies	1-800-662-4797	1-800-662-4797
Telephone	AT&T	1-800-288-2020	1-800-288-2020
Law Enforcement	City of Mequon Police	911	262-242-3500

Regulatory Agency Contact Information

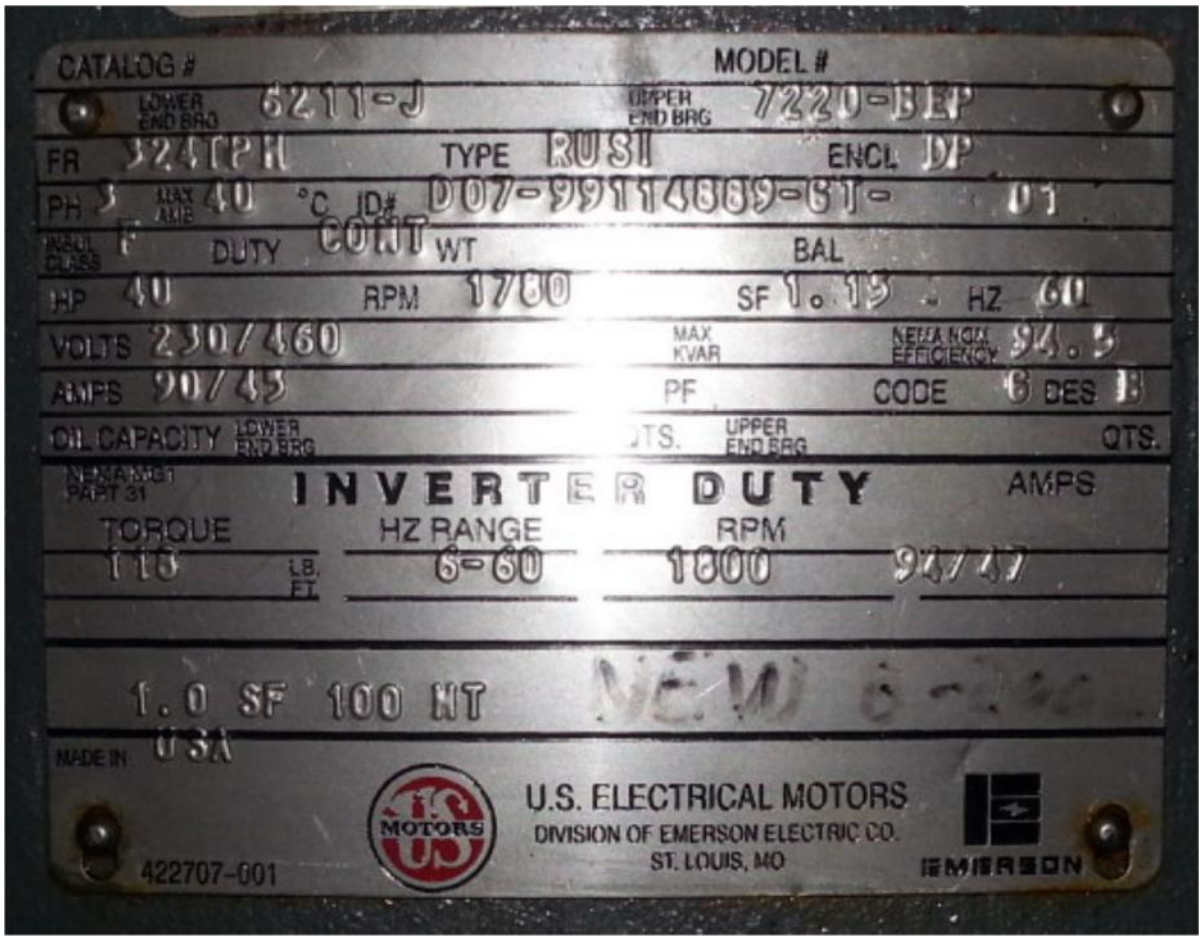
Agency	Name	Address or Emergency #	General Phone
DNR	Washington Methu Washington.Methu@wisconsin.gov	2300 N. Dr. MLK Jr. Dr., Milwaukee	414-263-8695
Ozaukee County Emergency Management	Scott Ziegler sziegler@co.ozaukee.wi.us	**24/7 Emergency Contact Number: 262-284-7172**	262-238-8397

Water Sampling Contact Information

Name	Address	Phone	Mobile / Alternate
Tim Cummens, CTW Corp.	21500 W. Good Hope Rd, Lanon, WI	262-253-6613	414-303-3872

System Components Listing

Component	Location	Make & Model	Purchased From	Phone	Maintained By
Pump Motor (Well #1)*	10224 N. Waterleaf	US Motors ID # D07-99114889-GT-01	CTW	262-253-6613	PPHOA / 262-422-3722
Submersible Pump (Well #2)	10218 Aster	Grund Fos 300S400-g Franklin Motor	CTW	262-253-6613	PPHOA / 262-422-3722
* Rebuilt pump components: 1-19-15					



Backup Water Sources for Park Place Water System			
Component	**Source**	**Procedures**	**Contact Information**
1	Well #1 - Primary	Shut off Well #1 and Well #2 will supply water automatically	Bruce Sipiora: 262-422-3722 CTW: 262-253-6613
2	Backup Power	Well #1 and #2 are not supplied from the same power distribution source	WE Energies: 1-800-662-4797
3	Interconnection	No connections with other water systems - private or public.	
4	Bulk Water	None	
5	Bottled Water	None	

GENERAL PROCEDURES for EMERGENCY DISINFECTION

These procedures can be used as general guidelines for developing a more specific Emergency Disinfection Plan. Each water system varies and a specific plan pertaining to that system should be developed.

EMERGENCY CHLORINATION PROCEDURES

Chlorine Addition to System

1. Set up the chlorination feed pump. Refer to pump O&M manual for specifics on particular pump and proper connection.

2. Make sure that chlorine feed pump operates when plugged into the outlet connected to the well pump. The chlorine feed pump should only operate when the well pump is on. Make sure pump is plugged into correct outlet.

3. Set pump to reach the desired chlorine residual based on the chlorine being used and the gallons per minute (GPM) of the well. Turn well pump to manual and let run for a couple of minutes. Check the chlorine residual downstream from chlorine injection point. If necessary, adjustment chlorine pump feed rate to reach the desired residual.

4. Distribute the chlorinated water throughout the system by flushing hydrants or faucets.

5. Continue emergency chlorination until follow up samples come back safe and DNR instructs that chlorination is no longer required.

Chlorine Addition To Well

1. New wells and wells that are bacteriologically contaminated should be disinfected according to a chlorine solution ratio of 1:100. That is 1 part of chlorine (household bleach) to 100 parts of water.

2. Mixing can be done 25 gallons at a time in a clean plastic container. (Use 1 quart of bleach for every 25 gallons of water.) Always prepare enough solution to meet or exceed the total volume of your well.

Solution needed- Casing Diameter	Minimum amount of chlorine solution.
6”	15 gallons of solution per 10 feet of well depth.

Example: A 6” well that is 100’ deep would need 150 gallons of solution (15 gallons of solution for every 10’ of well equals 150 gallons). About 1 & 1/2 gallons of bleach would be needed at the minimum.

3. Remove the well cap and pour the required amount of solution into the well.

4. Hook up a hose to the system being disinfected and rinse the well casing for 5-10 minutes. Run enough water to circulate the chlorine solution throughout the water system.

5. Turn on each of your other water taps till the bleach smell is just detected and then turn them off to keep the chlorine solution in the system.

6. Let the chlorine solution remain in the system for at least 24 hours.

Disinfection of Household Water

The following procedures will destroy the usual bacteria and other microorganisms that may be present in water obtained from a contaminated public water supply system or from alternate emergency sources.

Heat Disinfection (boiling)

Boil the water for at least one minute after reaching a rolling boil.

Chemical Disinfection

1. Strain water through a clean, tightly woven cloth into a clean container to remove any sediment or floating matter.
2. Purify the water with one of the following chemicals (choice of chemical is based on availability)
    a. Hypochlorite solutions (PUREX, CLOROX or other household bleach)

Read the label to find the percent of available chlorine in the solution and determine the number of drops needed to disinfect each quart of water from the table below:

Available Chlorine	Drops of Bleach to add to each quart of clear water	Drops of Bleach to add to each quart of cloudy water
1%	10	20
4 to 6%	2	4
7 to 10%	1	2
If not known	10	20
Mix thoroughly by stirring or shaking water in container. Let stand for 30 minutes. A slight chlorine odor should be detectable in the water. If not, repeat the dosage and let stand an additional 15 minutes before using.		

    b. Iodine: Use USP tincture of iodine; iodine from the medicine cabinet should be suitable. Add two to three drops to each quart of clear water (or eight to ten drops to each quart of cloudy water). Mix and let water stand for 30 minutes before using.

Purified water should be stored in clean, non-corrosive, tightly covered containers. Containers suitable for water storage include empty vinegar bottles, soft drink jugs and plastic milk containers that have been thoroughly washed and rinsed with purified water. Freezing does not disinfect water; ice cubes must be made from water that is properly disinfected.

NR 810.12 Distribution system loss of pressure.

The water supplier for community water systems shall be responsible for taking corrective action when positive distribution system pressure is lost in an area affecting 25% or more of the overall distribution system or in an entire pressure zone. In addition to restoring system pressure, the water supplier shall perform all of the following:

(1) Notify the appropriate regional office of the department as soon as possible, but no later than one working day after the loss of pressure, as to the extent of the problem, cause and corrective actions taken.

(2) Start emergency disinfection of the water supply if the water system is not already continuously disinfected. At a minimum, the free chlorine residual shall be 0.2 mg/l at the entry point to the distribution system and detectable throughout the distribution system or the total combined chlorine residual shall be 1.0 mg/l at the entry point and detectable throughout the distribution system. If loss of pressure was limited to one pressure zone, the above disinfection requirements may be restricted to target the affected pressure zone. Higher disinfectant residuals may be required by the department if deemed necessary to ensure a safe water supply. Water mains and storage facilities in the area that lost pressure shall be flushed to remove contaminated water and to quickly establish an adequate disinfectant residual. Emergency disinfection shall be maintained until approval is obtained from the department to cease.

(3) Collect distribution system water samples for bacteriological analyses from the pressure loss area as soon as adequate pressure is returned to the water system. The number of samples collected shall increase as the extent of problem areas increases, but in no case may less than 2 samples be collected. The department shall be contacted to determine the number of samples and sampling locations. The water supplier shall comply with s. NR 809.31 when water system sampling indicates the presence of coliform organisms.

(4) Issue an immediate boil water notice to all affected water consumers unless it is determined by the department that an acute threat to public health does not exist. The boil water notice shall be maintained until approval is obtained from the department to cease. In this subsection "boil water notice" means a special type of public notice that informs consumers that the water is bacteriologically unsafe and should be boiled prior to consumption. A boil water notice shall include all the following information:

(a) The water has tested bacteriologically unsafe for drinking.

(b) All water used for washing of eating utensils, drinking, or cooking should be boiled at a rolling boil for at least one minute.

(c) Ice and any beverages prepared with unboiled water should be discarded.

(d) Precautions listed in subd. 1 to 3 are in effect until further notice.

(5) Notify the public in the area affected as prescribed in s. NR 809.951 unless the department determines that no health hazard has existed.

(6) Take all corrective actions necessary to prevent additional pressure losses.

History: CR 09-073: cr. Register November 2010 No. 659, eff. 12-1-10.