Wisconsin Veterans Home at King

EMERGENCY PLAN – ELECTRICAL POWER LOSS

Applies To:
- All Wisconsin Veterans Home at King (WVH-K) staff, members, volunteers, and visitors

Policy:
- Auxiliary power shall be provided to designated areas within the facility to operate key medical equipment and other operating systems equipment should our normal power supply fail.
- Emergency generators shall be provided and are designed to activate automatically in the event of a power outage.
- The generators shall be capable of providing the facility with minimal supply of electricity.
- Staff shall shut down and turn off their computers if not in use, to save the power in the uninterruptable power supply (UPS) which would also eliminate the alarming sound.

Procedures:
In the event of a power outage, the follow steps should be followed:

   1.1. Security will determine the source of the outage by contacting the appropriate resource.
      1.1.1. WVH-K Director of Facilities or Power Plant Supt.
      1.1.2. Local power company (Wisconsin Public Service, (WPS))
2. Contact Administrative staff: Commandant, Executive Directors, Director of Nutrition Services or Food Service Administrator, and Nursing Supervisor(s) on duty.
3. In the event of generator failure, nursing staff will gather flashlights, headlamps and batteries from the emergency supply kits in the designated areas. Items are to be signed out by the user and returned to the tote when power is restored.
   - AH – Under the desk in the nursing station.
   - MH – 1st floor items are in 19B in the basement tunnel; MH 246; MH 346.
   - MH Pharmacy – Flashlights are at various workstations.
   - OH – Cupboard behind the soiled utility door on the bottom shelf; 1st floor lobby desk area.
   - MO – To be determined.
4. Nursing staff shall ensure necessary medical equipment (i.e., oxygen concentrators, powered air mattresses, electric beds, respiratory equipment, CPAP and IV Pumps) is plugged in to the designated (red) emergency outlets in the member’s room, if needed during your shift.
   4.1. Note: If needed during the emergency, staff will be allowed to use multiple fused outlet strips and extension cords on a limited basis during a power outage to support medical equipment for the care of members. These extension cords and multiple outlet strips will be stored in the emergency kits.
5. Necessary office equipment should be plugged into emergency (red) outlets (e-power). Unplug computers and UPS units if not in use.
6. All diet kitchen and med room refrigerators not on e-power need to be re-located to e-power or plugged-in using extension cords to maintain proper temperatures to avoid spoilage.
7. Member refrigerators and break room refrigerators shall be plugged into e-power, if possible, if not possible ensure all perishable food is discarded.
8. Non-Nursing support building emergency kits:
   8.1. Marden Center - Emergency flashlights/lanterns etc. are kept in Alley 5 for tunnel/basement area use; main floor items are in the copy room 201A which is located between offices in 202; 3rd floor items are in the library office.

8.2. Central Services Building:
   8.2.1. Kitchen Area – Blue totes with emergency lighting are in the snack closet; some lanterns and flashlights are more readily available in the main office on filing the cabinet. Refer to p/p 06-00-14 Meal Service During Power Loss for specific departmental directions.
   8.2.2. Laundry - lanterns are in the bundle room top shelf.
   8.2.3. Staff Development - Kit is in room 8.

8.3. For other areas not specifically identified, staff may have flashlights at their workstations.

8.4. Extended period of power loss for non-nursing support buildings.
   8.4.1. Building managers shall evaluate their staff work status and whether they can still perform job duties.
   8.4.1.1. Staff may be reassigned to a nursing care building to assist with members or support needs in other locations of the facility.
   8.4.2. Marden Center staff shall evaluate current and upcoming events for the day; close the building and secure tunnel gate due to limited staff and limited e-power.
   8.4.2.1. Staff may need to be reassigned to assist in other areas of the facility.
   8.4.2.2. Marden staff shall send an e-mail to advise campus of their closing and make an overhead announcement.
   8.4.2.3. Members shall be directed to return to their units due to lack of lighting and limited e-power.

9. Generators are available to provide power. See Attachment A-Emergency Generator Inventory / Location and Fuel Consumption.


10. Power may be limited to certain types of equipment and designated outlets (red outlet).
    10.1. Each nursing care and support building has its own generator that will supply power to support the limited building needs.
    10.2. Non-nursing buildings have limited power.
    10.3. Nursing care building e-power supports the following:

<table>
<thead>
<tr>
<th>Ainsworth, MacArthur, and Olson Hall:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fire alarm system for each building</td>
</tr>
<tr>
<td>WVH-K potable water system</td>
</tr>
<tr>
<td>All IT server rooms</td>
</tr>
<tr>
<td>Main dining room</td>
</tr>
<tr>
<td>Phone system on e-power</td>
</tr>
<tr>
<td>Retherm units</td>
</tr>
<tr>
<td>Elevators #1 &amp; #2 and Freight are on e-power</td>
</tr>
<tr>
<td>Hot water system and DHS circulation pumps</td>
</tr>
<tr>
<td>Tub rooms will have one or two red outlets</td>
</tr>
<tr>
<td>Small Kitchen areas on unit(s) have one red outlet</td>
</tr>
<tr>
<td>First floor has limited red outlets in office areas.</td>
</tr>
<tr>
<td>No emergency lighting in member’s rooms or restrooms.</td>
</tr>
<tr>
<td>Has one red outlet with two plugs in each staff office area.</td>
</tr>
<tr>
<td>All stairwells, hallways, and unit lobbies in each building have emergency egress lighting.</td>
</tr>
<tr>
<td>Member freedom is on e-power and UPS back-up power in all buildings, UPS power will last about 1 ½ hours if e-power is lost.</td>
</tr>
</tbody>
</table>
Wisconsin Veterans Home at King
EMERGENCY PLAN – ELECTRICAL POWER LOSS

<table>
<thead>
<tr>
<th>Date of Origin: 2005</th>
<th>No.: 14-00-011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Revision: March 14, 2022</td>
<td>Page 3 of 7</td>
</tr>
<tr>
<td>Last Review: March 14, 2022</td>
<td>Maintained By: Administration/Security</td>
</tr>
</tbody>
</table>

Additionally, in MacArthur Hall:
- Pharmacy has three red outlets
- Each single room has one red outlet with two plugs.
- Each double room has two red outlets with two plugs.
- Each staff office on the upper floors has one red outlet with two plugs.
- Second and third floor hallways each have six red outlets throughout.

Additionally, in Ainsworth Hall:
- Elevator #3 is on e-power *#4 is not*
- Tub rooms vary, see map
- Nursing stations vary, see map
- Smoking pavilion has limited to no e-power
- Each single room has one red outlet with two plugs.
- Each double room has two red outlets with two plugs.

The following are the electronic version maps, showing the amount of emergency outlets in each area.

11. Non-nursing support buildings e-power supports the following:

**Security - Most of the building is on e-power supplied by the Power Plant**
- Fire alarm system is on e-power *Be prepared to reset each alarm panel throughout campus*
- Phone system is on e-power
- Member freedom is on e-power and UPS back-up power in all buildings, UPS power will last about 1 ½ hours if e-power is lost.

**Marden Memorial Center**
- Emergency lighting in hallways and stairwells
- Elevators #1 & #2 are on e-power
- Fire Alarm system is on e-power
- Member freedom is on e-power and UPS back-up power in all buildings, UPS power will last about 1 ½ hours if e-power is lost.

**Central Services**
- Fire Alarm system is on e-power
- Laundry has no e-power, limited lighting
- Most of the Kitchen areas are on e-power, refer to Staff Development and Hardware has no e-power, limited lighting p/p 06-00-14 Meal Service During Power Loss. Portable rental generator could be used if needed to supply power to the rest of the kitchen.
- Member freedom is on e-power and UPS back-up power in all buildings, UPS power will last about 1 ½ hours if e-power is lost.

**Maintenance**
- Fire Alarm system is on e-power
- Limited Lighting
- Water tower provides system pressure.
- Well House 2: Connected to the Water Plant generator
- Well House 4: Portable Hookup
12. The following systems do not have e-power
   12.1. Air handlers in all buildings except for MH, has manual switches,
   12.2. Air conditioning in all buildings
   12.3. Member freedom is on e-power and UPS back up power in all building, UPS power which
   will last about 1.5 hours if e-power is lost.
13. Staff shall check on all members to ensure their safety and continued use of essential equipment.
15. Security shall contact information for additional support:

<table>
<thead>
<tr>
<th>Emergency Power Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>WPS – Emergency # 1-800-450-7250</td>
</tr>
<tr>
<td>Cell # 1-715-581-1164</td>
</tr>
<tr>
<td>Cell # 1-715-848-7407 Contact: Fred Westphal <a href="mailto:fkwestphal@wisconsinpublicservice.com">fkwestphal@wisconsinpublicservice.com</a></td>
</tr>
<tr>
<td>Suburban – #1-800-739-8112</td>
</tr>
<tr>
<td>Cell #1-920-739-4767 Contact: Dan Bender <a href="mailto:dbender@suburbanelectric.com">dbender@suburbanelectric.com</a></td>
</tr>
<tr>
<td>Bauer – #1-715-258-2848</td>
</tr>
<tr>
<td>Cell #1-715-281-8843 Contact: Tim Bauer <a href="mailto:bauerelectric@bauerelectric.net">bauerelectric@bauerelectric.net</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fuel - #2 Low sulfur diesel fuel</th>
</tr>
</thead>
<tbody>
<tr>
<td>E.H. Wolf &amp; Sons - #1 – 715-335-4211</td>
</tr>
<tr>
<td>Cell #1-920-660-6399 Contact: Ross Radpke <a href="mailto:holly.wood313@yahoo.com">holly.wood313@yahoo.com</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Generator Rental (portable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Energy Systems 1-888-548-1400 ext. 316 – Kegan Collins</td>
</tr>
<tr>
<td><a href="http://www.totalenergysystems.com/">http://www.totalenergysystems.com/</a></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chiller rental (portable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trane 1-866-431-3755</td>
</tr>
</tbody>
</table>
# Emergency Generator Inventory & Fuel Consumption

Current as of 03/2022

<table>
<thead>
<tr>
<th>Building</th>
<th>Manufacture</th>
<th>Fuel Type</th>
<th>Fuel Capacity</th>
<th>Model #</th>
<th>Serial #</th>
<th>KW</th>
<th>Amp</th>
<th>Volts</th>
<th>Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ainsworth</td>
<td>Kohler</td>
<td>Diesel</td>
<td>600 gallons</td>
<td>300ROZD71</td>
<td>299598</td>
<td>300</td>
<td>451</td>
<td>480</td>
<td>1992</td>
</tr>
<tr>
<td>Stordock</td>
<td>Kohler</td>
<td>Diesel</td>
<td>225 gallons</td>
<td>250DEOZD</td>
<td>702823</td>
<td>265</td>
<td>150</td>
<td>208</td>
<td>2000</td>
</tr>
<tr>
<td>Olson</td>
<td>Kohler</td>
<td>Diesel</td>
<td>225 gallons</td>
<td>250REOZD</td>
<td>702824</td>
<td>265</td>
<td>347</td>
<td>208</td>
<td>2000</td>
</tr>
<tr>
<td>Moses</td>
<td>Caterpillar</td>
<td>Diesel</td>
<td>4000 gallons</td>
<td>C18</td>
<td>T3400742</td>
<td>750</td>
<td>1000</td>
<td>480</td>
<td>2021</td>
</tr>
<tr>
<td>Power Plant</td>
<td>Cummins</td>
<td>Diesel</td>
<td>3000 gallons</td>
<td>DQFAD</td>
<td>L160128712</td>
<td>1MW</td>
<td>1600</td>
<td>480</td>
<td>1990</td>
</tr>
<tr>
<td>Water Plant</td>
<td>Kohler</td>
<td>Diesel</td>
<td>150 gal</td>
<td>150R0ZJ81</td>
<td>339066</td>
<td>150</td>
<td>520</td>
<td>208</td>
<td>1993</td>
</tr>
<tr>
<td>Maintenance Bldg.</td>
<td>Onan</td>
<td>Diesel</td>
<td>100 gallons</td>
<td>50DEG-4R8/1483B</td>
<td>469094973</td>
<td>50</td>
<td>208</td>
<td>purchased used</td>
<td></td>
</tr>
</tbody>
</table>

Total Gallons in generator fuel tanks: 8,400

Reserved for emergency boiler fuel: 14,000

Vehicle Fuel: 2,000

Total Gallons: 24,400

## FUEL BURNED PER HOUR/DAY AT FULL LOAD CAPACITY

<table>
<thead>
<tr>
<th>Building</th>
<th>Model #</th>
<th>KW</th>
<th>Amp</th>
<th>Volts</th>
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<tbody>
<tr>
<td><strong>Ainsworth</strong></td>
<td>300ROZD71</td>
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<td><strong>Olson</strong></td>
<td>250REOZD</td>
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<td>150</td>
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<td>150ROZJ81</td>
<td>150</td>
<td>520</td>
<td>208</td>
</tr>
<tr>
<td><strong>Maint. Bldg.</strong></td>
<td>50DEG-4R8/1483B</td>
<td>50</td>
<td>208</td>
<td>purchased used</td>
</tr>
</tbody>
</table>

### Fuel Efficiency

- **Ainsworth**: 21 GPH, 504 GPD, 600 Tank Size, 1.19047619 Days per tank full
- **Olson**: 17 GPH, 408 GPD, 225 Tank Size, 0.551470588 Days per tank full
- **Stordock**: 17 GPH, 408 GPD, 225 Tank Size, 0.551470588 Days per tank full
- **Moses**: 53 GPH, 1272 GPD, 4000 Tank Size, 3.144 Days per tank full

**Power Plant**

- **Full Load**: 72 GPH, 1728 GPD, 3000 Tank Size, 1.736111111 Days per tank full
- **3/4 Load**: 54 GPH, 1296 GPD, 3000 Tank Size, 2.3148148 Days per tank full
- **1/2 Load**: 36 GPH, 864 GPD, 3000 Tank Size, 3.4722222 Days per tank full
- **1/4 Load**: 19 GPH, 456 GPD, 3000 Tank Size, 6.5789473 Days per tank full

**Water Plant**: 11 GPH, 264 GPD, 150 Tank Size, 0.568181818 Days per tank full

**Maint. Bldg**: 5 GPH, 120 GPD, 100 Tank Size, 0.833333333 Days per tank full
Checklist for Nursing Units During Loss of Electrical Power

☐ Obtain emergency lighting from kit.

**RN immediate responsibilities:**
☐ Account for ALL unit members.
☐ Ensure all stairwell “Member Freedom” door alarms are operational. If not, assign someone to watch the doors until further instructions are received.
☐ Direct CNAs/designees to ensure all essential medical equipment is plugged into emergency outlets: O₂ concentrators, air mattresses (may need to be reset d/t power interruption), CPAP/nebulizers, and pumps (IV/feeding/negative pressure wound therapy). Due to the emergency, power strips may be used. (Only one device per extension cord. The cords must run along a wall and not create a trip hazard.)
   ☐ Other equipment could use emergency outlets, i.e., beds, member refrigerators.
☐ Power off / shut down computers not being utilized. (Note: the uninterruptable power supply (UPS) that the computers are plugged into have about 1 ½ hours of battery supply, so unplug any UPS not being used.)
☐ Determine other unit needs.
   ☐ Depending on local and distant environments, review members’ consult appointments. (Does appointment facility have power? Are roads passable?)

**LPN continues with routine as necessary:**
☐ Keep backup laptop plugged into emergency power.
☐ Consider potential behavior changes.

**CNAs follow RN instructions:**
☐ Keep members calm.
☐ Keep members hydrated; use up unit refrigerator fluids first.
☐ Unplug non-medically necessary equipment (microwaves, coffee pots, toasters, etc.).
☐ Plug med room, diet kitchen, and breakroom (if possible) refrigerators into emergency power.

**3+ Hours without full electrical power:**
RN ensures:
☐ Members are kept warm/cool as appropriate. Assess the need for additional blankets or fans.
☐ CNAs increase walking rounds.
Checklist for EDs & Nursing Supervisors During Loss of Electrical Power to Nursing Units

Immediately:
- ☐ Ensure Member Freedom alarms are working.
- ☐ Get report from unit RNs regarding the whereabouts of their members and any perceived immediate unit needs.
- ☐ Contact building activities staff to see if planned activities will occur or alternate plans need to be made.
- ☐ Non-nursing staff available will pass trays, provide 1:1 activity, etc.
  - ☐ Power off/ shut down computers not being utilized and unplug UPS due to limited battery life.
- ☐ If power loss > than a few hours, ensure “Out of Order” signs are posted on vending machines.
  - ☐ Consider need to contact vending machine contractor.
  - ☐ May need to post on power assisted bathroom doors.
- ☐ May need to convene at the Emergency Operations Center.

3+ hours without full electrical power:
- ☐ Check with nursing units for additional needs.
- ☐ Evaluate staffing needs.
- ☐ Instruct staff to print MAR/TAR.
- ☐ Evaluate the need for additional fluids (e.g., ice, “Gatorade”, etc.)
- ☐ In the winter, consider eating supper on nursing units due to decreased lighting inside and outside.
- ☐ If a member’s refrigerator has been without power, instruct staff to remove/discard potential spoiling food products.

After normal power is restored:
- ☐ Ensure ALL emergency equipment (extension cords, lighting, and power strips) is returned to its normal storage location.
- ☐ Plan to replace broken items and/or order additional items needed.