

## DECEMBER 2008 ICE STORM REVIEW

### STAFF INFORMATION REQUESTS TO WATER UTILITIES – SET #1

The Commission is reviewing the efforts of New Hampshire utilities with respect to preparation, response and restoration of service following the December 11-12, 2008 ice storm. Please read the questions carefully; some relate specifically to the December storm and some are related to general preparedness for future events. Please provide your responses to the questions below by March 20, 2009.

1. Please describe impacts of the storm generally on your water system or systems.  
[This storm had very little to no impact on our water system.](#)
  
2. Please indicate the following for each facility that lost external power as a result of the storm (if a large number of facilities were involved, a detailed summary is acceptable):
  - a) Name of system; [Hanover Water Works Company](#)
  - b) Name of facility; [Balch Hill Pressure Zone](#)
  - c) Name of electric provider; [National Grid](#)
  - d) When power was lost; [12/12/08](#)
  - a. Reason for power loss; [A tree limb knocked power supply line down and the line chafed against another tree, removing the insulation, creating a short to ground that opened the fuse on that leg.](#)
  - e) Resulting impacts to water system (loss of water to entire system, to portions of system, loss of pressure, etc.); [There were no impacts to the pressure zone or system.](#)
  - a. How you learned of the power loss; [The power loss created a loss of signal from the tank level SCADA system that resulted in an alarm being sent out.](#)
  - b. The length of time from loss of power to when you first learned of it; [Approximately 1 minute.](#)
  - f) The extent of alarms or SCADA monitoring at the facility, including where output is directed; [All critical systems and processes are alarmed including all tank levels high and low, filter operation, electrical failure, pump failures, process contamination from high or low chlorine residual level, turbidity or pH, building temperature and operation of chemical pumps. These alarms are directed to the SCADA computer, the water facility land line, cell phones carried by the superintendent, assistant superintendent and on – call operator, pagers carried by the superintendent, assistant superintendent and on – call operator and to the Hanover Police and Fire Dispatch center.](#)
  - a. When external power was restored. [The external power was restored 4 hours later at 13:48](#)

3. Please indicate the following for each facility above regarding backup power capability, even if your systems did not lose power during the December ice storm:
  - a) What provisions existed for backup power when the storm began, or exist now for any future events (permanent generator, wired for portable generation, etc.); **The pumps for the pressure zone are located at the water treatment facility. The stand by power located at the water facility is designed to operate the pumps during power outages.**
  - b) What efforts were made to provide alternate power during the event, or would be made in the event of future outages (purchase or rental of generator, use of company portable generator, installation of wiring or transfer switch, etc.); **As indicated above stand by power is available at anytime.**
  - c) What portion of the period of external power loss the facility was kept in power (or would be kept in power in the future) as a result of a) and b) above; **If the grid power was to fail we have stand by power 100% of the time.**
  - d) Any difficulties encountered in backup power performance or operation in the December storm (generator wouldn't start, ran out of fuel, etc.). **None**
  
4. Please describe your generator maintenance program, including nature and frequency. **The stand by generator runs every week for a 30 minute exercise cycle and every fourth week the unit is placed under operating load conditions. The fleet maintenance performs the oil and filter changes and annual load tests are done by a third party.**
  
5. For each company-owned generator that failed to start or run during the event, please indicate: **Not Applicable**
  - a) When the generator was last inspected prior to the event;
  - b) When the generator was last serviced prior to the event;
  - c) When the generator was last operated prior to the event.
  
6. Did you contact your electric provider during or immediately after loss of power in the December storm? If so, please indicate: **No**
  - a) When or how often;
  - b) Any difficulties in doing so;
  - c) The provider's response;
  - d) Whether you were you given priority as a water provider, and if so:
  - e) Whether it was because of a previous prioritization or in response to contacts during this event.
  
7. Did you lose any communications as a result of the storm? if so, please indicate: **No**
  - a) Type (landline, cell, mobile radio, pager, internet, alarms, SCADA, etc.);
  - b) Name of communications provider;
  - c) Length of time lost (when lost, when restored);
  - d) Extent of any contact with provider;
  - e) Provider's response;

- f) Whether you were given priority as a water provider, and if so:
  - g) Whether it was because of a previous prioritization, or in response to contacts during this event.
8. For water systems that experienced loss of water or pressure as a result of the storm, please indicate: **Not Applicable**
- a) Nature of impact;
  - b) Duration of impact, including approximate start and end times;
  - c) Cause of impact (loss of power, loss of supply from neighboring system, etc.);
  - d) Number of customers affected;
  - e) How you first learned of the impact;
  - f) The amount of time from onset of impact to when you first learned of it;
  - g) Whether the impact to your system affected any neighboring or connected water systems.
9. Please indicate any other direct or corollary damages or impacts from the storm not described above (main breaks, frozen company or customer lines, inability to obtain or deliver material or equipment, etc.). **Not Applicable**
10. Please describe the extent of your interactions with outside agencies (emergency officials, Department of Environmental Services (NHDES), municipal officials, fire departments or others) during the event. **Not Applicable**
11. Please describe any efforts to secure alternate water supplies (trucked or bottled water, opening of system interconnections, etc.) as a result of the storm. **Not Applicable**
12. Were any water use restrictions or boil orders issued as a result of the storm? **Not Applicable**
13. Please indicate any difficulties obtaining needed fuel for vehicles, generators or other equipment. **Not Applicable**
14. Please describe any difficulty in contacting or obtaining needed assistance from contractors, vendors or others. **Not Applicable**
15. Please indicate the extent to which you sought or obtained equipment, personnel or services from or through company affiliates or related entities, and any difficulties encountered. **Not Applicable**
16. Please indicate the extent to which you sought or obtained equipment, personnel or services through formal or informal mutual aid agreements, and any difficulties encountered. **Not Applicable**

17. Please indicate the extent of competition for personnel, crews, equipment or services from affiliated or related entities during the event, including any impacts on the regulated utility(ies). Examples of such entities might include Pennichuck Water Service Corporation, Pennichuck Watertight program, Aquarion systems in Massachusetts, Aquarion Homeowner Safety Valve program, Lewis Builders, or unregulated systems owned or operated by LRW Water Service, Inc. **Not Applicable**
18. Please indicate the extent to which you used any internal prioritization in your restoration efforts, such as those based on known medical or other needs (individuals, hospitals, nursing homes, etc.). **Not Applicable**
19. Please provide the process used to disseminate information to utility call center staff and any other utility staff responsible for responding to customer inquiries during an outage. Please include the frequency of the information updates and the age of the information provided in the updates. **Not applicable in this situation however in the event this was necessary a direct phone call would be made to the dispatch center to provide them the necessary information for the consumers. During regular work hours this same information would be provided to the HWWCo administrative assistant. This would be updated as conditions change.**
20. Please provide the trunking capacity of the call center or centers that handle customer calls. **The dispatch center has 32 lines available.**  
What level of staffing is normally maintained at those call centers and what level was maintained during the December 2008 ice storm? **The normal staffing is 2 people however three were on call to handle the potential increased volume.**  
What call volume do these levels of staffing correspond to? What was the daily call volume for the period December 11 – December 31, 2008? How does that compare to normal call volumes? **The normal volume of calls for a regular 7 AM to 3 PM shift is 100 – 150 calls. The volume of calls handled on 12/11 was 808.**
21. How is automation used in your call answering system to provide information to customers during an outage? What percentage of customers selected the menu option of speaking to a representative during the December 2008 ice storm? How does that percentage compare to the percentage of customers selecting the option of speaking to a representative under business as usual conditions? **During emergency conditions the dispatch center has the option to use Reverse 911 for consumer notification. There are no menu options with this system.**
22. Please describe the process for identifying and prioritizing service restoration to medical emergency customers as defined in Puc 1202.12.
23. Please identify all customer outreach and customer communications utilized during an outage to provide timely and responsive information to customers regarding the outage and projected restoration times. **For localized, short term emergencies the Reverse**

911 system is used. For emergencies of greater duration than 24 hours the local newspaper and radio stations are used as well as postings in public facilities

24. Please describe generally the nature and extent of contacts initiated by customers, including: **Not Applicable**
- Number of event-related contacts each day;
  - Any problems encountered (difficulties with phone lines, shortage of personnel to handle calls, etc.).
25. Please describe the nature and extent of storm-related customer contacts initiated by you, including: **Not Applicable**
- Frequency;
  - Any problems encountered;
  - Copies of any emails, notices or correspondence sent to all or groups of customers.
26. Please indicate the extent of any contacts with the media, including: **Not Applicable**
- Nature, type and frequency;
  - Whether initiated by the media or you;
  - Copies of any press releases or other media communications issued by you.
27. Do you have an emergency plan as required by NHDES (rule Env-Ws 360.15)? **Yes**  
If so:
- When and by whom had it last been reviewed prior to the storm? **March 2003 by NHDES**
  - When and by whom had it last been updated prior to the storm? **March 2003 by NHDES**
  - How many pages is it? **14 pages**
28. To what extent did the emergency plan benefit your response to the storm in areas such as: **Not Applicable**
- Securing equipment, supplies or resources;
  - Communication with customers;
  - Communication with outside agencies and personnel;
  - Communication with the media;
  - Other recovery efforts.
29. To what extent were any shortcomings of the plan a detriment to your response to the storm? **Not Applicable**
30. Regarding SCADA (Supervisory Control and Data Acquisition) systems, please indicate: **Not Applicable**
- The extent of such systems in your facilities;
  - Their impact on your response to the storm;

- c) The extent to which the performance of such systems was impacted by the storm;
  - d) The extent to which additional SCADA monitoring would have assisted recovery efforts.
31. Please describe any recovery efforts or activities still underway, including anticipated time frame for completion. [Not Applicable](#)
32. Please provide copies of any internal summaries or reports generated in relation to the storm and recovery efforts. [Not Applicable](#)
33. Did you experience any significant safety-related mishaps during or as a result of the event? [Not Applicable](#)
34. Please comment generally on the impacts of this storm in relation to other storms or events of the last ten years. [This storm had no affect in relationship to the downpour of 6/10/05. We experienced severe flooding, road washouts and degradation of water quality as a direct result of the rain.](#)
35. Please comment generally on your overall level of preparedness for an event of this size, including any lessons learned or areas for improvement being considered. [I feel we are well prepared to handle this type of emergency. We have reliable stand by power to prevent a loss in our ability to deliver a safe, potable product to our consumers. The dispatch center is well equipped and modernized to be able to disseminate information to the general public quickly. We maintain a well staffed highway crew with access to all types of equipment and trucks that can clear and rebuild highways and other critical areas of required access. We can establish contact quickly through the town via several sources including a fiber optic network, cell phones and computers.](#)
36. Please provide an estimate of the overall cost impact of the storm to your company, to the extent one has been made. [Not Applicable](#)