



INFORMATION BULLETIN

NO: B-E3 G5 070608 2

<p>EMERGENCY – POST FLOOD PROTOCOL FOR RE-ENERGIZING ELECTRICAL & GAS EQUIPMENT</p>
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Date of Issue: June 08, 2007

Topic: BC Safety Authority licensed contractor procedures for re-commissioning gas & electrical equipment after flooding has occurred.

If electrical, gas or heating equipment is subjected to flooding it may have been damaged making it inoperable or unsafe.

For your safety it is important to have your area of occupancy declared safe to enter by the proper authorities. It is also important that the requirements of other health & safety protocols have also been met.

This document outlines the requirements from the BCSA to restore service after a flooding incident.

1- Post Flood Protocol for evacuated buildings:

Permission to enter the flooded area must be granted by the local authority.

Utility distribution services and propane service will be restored by Utilities or propane supplier using their own procedures.



Gas only

- Gas suppliers will tag off supply meters with information on what the correct and safe process is to have your building re energized.
- A shut down list, including addresses, of all the buildings where flood waters had entered the building shall be delivered by the gas supplier to the authorities having jurisdiction for follow up.

Please contact these local municipalities for gas permitting and protocol procedures. Maple Ridge, Burnaby, Vancouver, North Vancouver, District of North Vancouver, Richmond and Kelowna.

2.i – Buildings outside of the designated flood zone. (Well away from flooding, except premise has lost service)

Gas only

- When notified by the gas supplier the building owner may turn gas meter back on and re-light appliances or contact a BCSA licensed gas contractor to do this work.

Electrical only

- Utility to reconnect service without any other intervention. This is to be treated in a similar manner as any utility distribution outage.

2.ii – Buildings with-in the designated flood zone. (Where water may have entered the building)

Electrical and gas

- Building owner must contact BCSA licensed contractors to assess any safety hazards. Contractor will not be required to obtain permits in advance of the restoration, but some permits may be required for permanent repairs or modifications. Homeowner permits will not be issued for any of this work. Please visit the BC Safety Authority website for a list of active Licensed Contractors at: www.safetyauthority.ca/?q=contractorsearch
- BCSA staff will be prepared to offer technical advice to homeowners, building owners, contractors, emergency response personnel and gas/electrical suppliers. BCSA staff will also be prepared to visit sites where appropriate.



Gas only

- In the event new equipment, piping or venting must be installed the appropriate gas permit will be required.

Electrical only

For residences, hospitals, essential services as deemed by the local municipality and livestock barns:

- If electrical equipment or wiring has not been subjected to wetting, and if the contractor assessment finds no other problems, then reconnection can be authorized without a permit.
- In areas classified as flooded by the local authority (note other areas must follow normal permit process)

Qualified Field Safety Representative's (FSR) stating registration number and this bulletin number **B-E3 G5 070608 2** in replacement for the required permit number may make a declaration to BCHydro (**1-866-693-7007** for major power restoration events only) to restore power if:

They are satisfied that all hazards have been safely controlled or eliminated (use the check list in section 3 of this document as a guideline)

The request is logged by the FSR in a notebook used exclusively for this purpose and must include the following information:

- Date and time
- Location of premise
- Name of owner
- Any work performed
- Name and number of FSR
- Name and number of Contractor (if appropriate)

The notebook may be required to be submitted to a Safety Officer for audit.

The Authorization and Declaration Form can be found on the BCSA website at: www.safetyauthority.ca/files/341692%20FRM-0206-02.%20Electrical%20Contractor%20autho...pdf
Copies of the form are also available at any BCSA office.



A handwritten declaration may be used if the normal form is unavailable, provided that in addition to the required log book information, it contains the following (or similar) statement:

I, ___(insert name) declare that I have personally inspected this site, and that the site is safe for reconnection of electrical service.

- Service repair work performed above requires a contractor declaration to be submitted to BCSA within 10 working days of the declared end of the emergency.
- This contractor declaration process will be accepted in all jurisdictions, however permitting procedures may differ with-in each local authority so please contact the following applicable municipalities for this information:

Maple Ridge, Surrey, Burnaby, Vancouver, North Vancouver, District of North Vancouver and West Vancouver.

Electrical only

For other premises such as businesses, manufacturing plants and warehouses:

- Follow normal procedures or contact the BC Safety Authority for direction.

3. Guidance for equipment and system assessment

Electrical and gas

Heating systems & equipment

- Whether you use a wood, gas or electrical heating system, ensure that you have it thoroughly inspected by a certified individual employed by a BCSA licensed contractor before using it again.
- If they have been wetted, replace the furnace blower motor, switches and controls.
- Flooded forced-air heating ducts and return-duct pans should be either cleaned or replaced.
- Replace filters and insulation inside furnaces, water heaters, boilers, refrigerators and freezers if they have been wet. However, it is often cheaper to replace this equipment.



Electrical systems & equipment


If equipment or wiring has been wetted:

- In the case of severe flooding, after repairs are made, then all circuits must be megged clear to ground, unless a complete rewiring has been performed.
- Plug in loads (such as TVs, dryers) must be unplugged and may only be reconnected if replaced or reconditioned by a qualified repair service. Note: it is the FSR's responsibility to ensure that these devices are unplugged prior to re-energization. It is the homeowner's responsibility to ensure that the devices are repaired or replaced.
- Wired loads (such as heaters, ranges) must be removed and replaced or reconditioned by a qualified repair service or contractor. (note that we are concerned only with wetted electrical components only)
- Other electrical equipment (such as receptacles, fixtures) must be replaced
- Electrical connections must be broken, cleaned and dried, and remade.
- For customer services, the breakers only need replacement if the rest of the panel has been cleaned, dried, connections redone, and has been megged clear to ground. Note that wetted molded-case circuit breakers cannot be reused.
- If service metering has been wetted, contact BC Hydro and indicate this on declaration the form.
- Any other hazards identified must be isolated or repaired.



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Provincial Safety Manager – Electrical



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References:

Bill 19 – 2003	Safety Standards Act
B.C. Reg. 100/2004	Electrical Safety Regulation
B.C. Reg. 103/2004	Gas Safety Regulation
B.C. Reg. 105/2004	Safety Standards General Regulation

For more information on the British Columbia Safety Authority, please visit our web site at: www.safetyauthority.ca