

Policy and Procedure

Department: Emergency Preparedness	Section:	Subject: Code Grey - Air Exclusion And Infrastructure Loss
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Forward

Espanola Regional Hospital and Health Centre (ERHHC) aims to provide a safe secure environment for all patients and staff. The ERHHC Code Grey policy and procedure represents 3 sub-groups that include response to External Air Exclusion, Infrastructure Loss/Failure (gas, water, hydro, flooding) and IT Infrastructure Loss. This code policy is designed to alert the organization of such an event and provide an efficient response to ensure the safety of patients and staff, while maintaining quality service.

A Code Grey is a hospital emergency code that may be activated for 3 reasons:

1. **External Air Exclusion Policy-** To control contaminated air from entering the building. This may result from an external chemical spill leaking noxious agents into the air, or from a wildfire causing smoke intake into air systems. If such an incident does occur, Incident Command (IC) will activate the ***External Air Exclusion Procedure***.
2. **Loss of Infrastructure Policy-** Disruption or loss of essential services such as hydro, water, heating, cooling, ventilation, medical gas, or natural gas supply. Should this occur, Incident Command will initiate the ***Infrastructure Loss Procedure***.
3. **Loss of IT Infrastructure Policy-** Disruption or loss of essential IT Infrastructure services such as loss of Meditech, Telephones, Network/Internet. Should this occur, Incident Command will initiate the ***Loss of IT Infrastructure Procedure***.

All 3 Procedures are encompassed within this policy.

If a coordinated emergency response by several agencies is required, consult the Town of Espanola Emergency Response Plan.

EXTERNAL AIR EXCLUSION POLICY

Should outside air become contaminated and become a threat to patients and staff in the hospital, the building should be closed off as quickly as possible. If horizontal or total evacuation is required, refer to Code Green Evacuation policy.

An Air Exclusion notification may come from an outside source such as the Espanola Fire Department, OPP, or Domtar. The person receiving this communication will relay it to Incident Command and Senior Administration immediately.

Authority to declare:

A Code Grey External Air Exclusion can be initiated by the Incident Commander (Charge Nurse or Senior Administration).

PROCEDURE FOR INCIDENT COMMAND

Once it has been determined that a Code Grey needs to be initiated (by Senior Administration or the Charge Nurse), Incident Command will announce 3 times over the paging system, ***“Code Grey- Air Exclusion. Close all WINDOWS AND DOORS IMMEDIATELY.”***

1. Incident Command will call the fire monitoring station to cancel the fire alarm system – **705-673-8181, PASSWORD is 1234.**
2. Call 911 to advise OPP that we are engaging the fire alarm to activate a Code Grey and not due to a Code Red.
3. Incident Command or designate will pull/engage the fire alarm to restrict outside air from entering the building.
*****Some supply and exhaust fans shut down automatically and all fire doors close automatically upon activation of the fire alarm. *****
4. Incident Command or designate will affix “NO ENTRY and NO EXIT” signage on the main entrance doors and “NO EXIT” signage on the emergency entrance doors. Signage is in the CODE GREY BINDER.
5. When Incident Command has received direction from the Emergency Preparedness Manager, Maintenance Manager, Senior Administration, Espanola Fire Department, or the OPP that it is safe to clear the Code Grey, IC or designate will announce 3 times over the paging system, “Code Grey all clear.”

PROCEDURE FOR ACUTE CARE CHARGE NURSE

1. Charge RN or designate will ensure all acute care windows and doors are closed.
2. Charge RN or designate will ensure no one enters or leaves through the back door of the acute care department.

PROCEDURE FOR EMERGENCY PREPAREDNESS MANAGER

1. The Emergency Preparedness Manager or designate will be the liaison between the OPP or the Espanola Fire Department to ensure accurate information is obtained and communicated.
2. The Emergency Preparedness Manager or designate will communicate the status of the Code Grey to Senior Administration and the Management Team via meetings and emails.
3. The Emergency Preparedness Manager or designate will organize a debrief meeting when the Code Grey is deemed over.

PROCEDURE for LTC RPN

1. RPN or designate on each wing will ensure that all windows and outside doors are closed.
2. RPN or designate will affix “NO ENTRY and NO EXIT” signage on the main LTC entrance doors.

3. Assign a staff member to stand at the main entrance door and the door at the end of the south wing corridor as they will be unlocked while the fire alarm is in activation.

PROCEDURE FOR MAINTENANCE

1. Maintenance "A" or designate will shut all garage doors.
2. If after hours will ensure CSR receiving bay doors are closed.
3. May be assigned to assist in any other areas of the hospital with window and door closing.
4. Refrain from any activities that may produce a contaminant (e.g., painting)

PROCEDURE FOR HEALTH RECORDS/FINANCE DEPARTMENT

1. If during business hours, assign a person to stand at the main entrance to prohibit persons from entering/leaving the building until the ALL CLEAR is announced.
2. May be asked to assist in any other areas of the hospital with window and door closing.

PROCEDURE FOR CSR STAFF

1. Manager will ensure that the receiving bay door is closed.

PROCEDURE FOR LAB STAFF

1. Fume hoods should be turned off and the face should be covered and sealed (particularly if there are reagents left within the fume hood)

PROCEDURE FOR FAMILY HEALTH TEAM

1. Manager or designate will ensure all windows and outside doors are closed.
2. Affix "NO ENTRY and NO EXIT" signage at the entrance door to prohibit persons from entering/leaving the building until the ALL CLEAR is announced.

PROCEDURE FOR QWP STAFF

1. Ensure all windows and outside doors are closed.
2. Affix "NO ENTRY AND NO EXIT" signage on the main entrance doors.

*****NOTE: The code will be deemed "ALL CLEAR" (via overheard announcement) by the Emergency Preparedness Manager or designate, OPP or the Espanola Fire Department. *****

LOSS OF INTRASTRUCTURE POLICY

Infrastructure loss or disruption includes the following: hydro, heating, ventilation, natural gas, water, extreme weather events, natural disasters, or flooding. The Incident Commander, in collaboration with the departmental manager or Senior Administration may determine that evacuation is warranted, either horizontal or total. In this situation, refer to ERHHC Code Green-Evacuation policy.

Loss of power

Refer to Appendix A for a Departmental Checklist.

***NOTE: The Hospital has onsite generators that automatically start when power from Ontario Hydro is interrupted or lost. Heating and most lights would continue to function in the event of a power outage. ***

If the loss or disruption occurs during working hours, staff should notify their department manager immediately. The department manager will then communicate with maintenance, affected staff, and the rest of the management team as the situation progresses.

If the disruption occurs after hours, staff should contact the charge nurse to notify on call manager, who will then contact maintenance. Maintenance staff will communicate directly with the on-call manager.

PROCEDURE FOR INCIDENT COMMAND

1. Incident Command will call "Maintenance A" on call if the loss occurs **after hours** to advise of the loss of the essential service.
2. If the loss or interruption occurs **during business hours**, Incident command or designate will page maintenance to advise of such a loss.
3. If deemed appropriate (e.g., disruption in service affecting multiple areas) a Code Grey will be announced 3 times over the paging system ***"Code Grey", followed by the issue and the location.***

PROCEDURE FOR MAINTENANCE

1. Maintenance will respond accordingly and follow their protocol for the loss or disruption in service.
2. Maintenance Manager or designate will be the liaison between the affected company/municipality to ensure accurate information is obtained and communicated.
3. Maintenance Manager or designate will communicate the status of the loss or disruption of service to the on-call manager (contact charge nurse if unsure scheduled manager on-call). Manager on call will ensure charge nurse is kept informed. If maintenance is unable to contact the on-call manager, they may delegate this task to the charge nurse.
4. Maintenance Manager will maintain communication with IC throughout event and will provide information regarding need for evacuation (refer to ERHHC Code Green- Evacuation).

The "ALL CLEAR" announcement will be made over the paging system by Incident Command or designate.

Flooding:

In the event of an internal flood, the IPAC lead, EVS manager, Maintenance Manager and involved departmental managers will communicate via email until resolution of the issue. Upon discovery of a

floor or water situation, staff should immediately contact their departmental manager, or Charge Nurse (if after hours), to dispatch maintenance staff.

Maintenance Process: As outlined in ERHHC policy *Emergency Water Shutdown*.

Types of Flood Water:

Clean water: Broken pipes, tub/sink overflows, equipment malfunction, rainwater, broken toilet tank

Gray water: Dishwasher overflow, washing machine, clean toilet bowl (some degree of contamination)

Black water: Water containing raw sewage (overflow from a soiled toilet bowl, broken sewer line, backed up sewage, all forms of ground surface water rising from streams)

- The area must be assessed by the IPAC lead to determine risk of contamination (regardless of presumed source of water). Water is assumed to be contaminated until confirmed to be a clean source.
- The area must be cordoned off until cleaning and disinfection are completed.
- If flooding involves a food preparation area, all food products that have come into contact with the water must be discarded, and the public health unit notified (705-522-9200). Public Health must also be notified if flooding involves vaccine refrigerators, or if the flooding leads to a prolonged power outage that compromises food or vaccine refrigeration. The area must remain closed until approved by Public Health.

Infection Prevention and Control in the Event of a Flood/Water activity

- Assess patient, visitor, and staff safety; evacuate the area if required.
- Protect potentially affected equipment with plastic sheeting or move if possible.
- Contain the flood or leak if possible.
- In long-term care homes, report the incident to the facility manager.
- Disinfect surfaces of equipment and furniture before moving it from the affected area.
- Notify Infection Prevention and Control to assess the risk of contamination:
 - If water is contaminated with faecal material, the infection prevention and control professional will determine the need for personal protective equipment, hoarding, negative/positive pressure requirements, etc.
 - Infection prevention and control professional and occupational health and safety may be consulted regarding staff and patient safety.
 - Infection prevention and control professional will arrange for ongoing patient surveillance dependent on the patient population affected by the flood.
 - Infection prevention and control professional will recommend relocation of patients if required dependent on patient population.
- Following containment:

- Discard all contaminated single-use sterile supplies.
- Send contaminated reusable sterile supplies to be reprocessed.
- Remove and discard contaminated carpeting.
- Assess furniture and equipment to determine if it can be salvaged.
- Assess building materials (e.g., ceiling tiles, drywall) and remove if required.
- Environmental Services (EVS) will clean and sanitize the area. There must be proactive management of potential mould. Infection prevention and control professional and maintenance manager to provide direction to remediation company if necessary.
- EVS and/or Maintenance Manager will provide communication once use of the area can be resumed.

Gas Leak

Signs:

Sight – Damaged connections to natural gas appliances or vegetation that is dead or dying for no reason.

Sound - Hissing or whistling.

Smell - A distinctive rotten egg or Sulphur-like odor.

PROCEDURE FOR STAFF

- Remain calm and evacuate the area immediately. Evacuate any patients/residents as you exit area, only if safe to do so.
- Dial 911 (Incident Command) to report the gas leak and the location.
- Do not:
 - Use phones or electronics near the leak.
 - Turn appliances or lights on/off.
 - Smoke or use lighters or matches.
 - Start any vehicles or motors.
 - Attempt to put out a fire if leaking gas is burning

PROCEDURE FOR INCIDENT COMMAND

1. Upon receiving notice, Incident Command will announce 3 times over the paging system, ***“Code Grey-Gas Leak, _____ (location). Proceed to initiate Code Green Evacuation”***. Initiate Code Green Incident Command Checklist in Code Green policy.
2. Call 911 to advise OPP that the alarm is engaged to activate a Code Green and not due to a Code Red.
3. Contact maintenance via overhear page or on-call phone if afterhours.
4. When Incident Command has received direction from the Emergency Preparedness Manager, Maintenance Manager, Senior Administration, Espanola Fire Department, or the OPP that it is safe to clear the Code Grey, IC or designate will announce 3 times over the paging system, ***“Code Grey (+/- Code Green) All Clear”***

PROCEDURE FOR MAINTENANCE

1. Maintenance will attempt to shut down the gas meter if it is safe to do so and will contact any necessary external agencies.
2. Maintain communication with IC or departmental manager.

LOSS OF IT INFRASTRUCTURE POLICY

Interruption of computer systems may be planned (regular monthly maintenance) or unplanned and may involve one or more program/modules or the entire information system. This will result in some or all the patient information systems being unavailable. It may affect the availability of the email system or the loss of telephone systems which impact ability to communicate during the outage.

Code Grey would not be initiated for planned downtime. The determination to announce Code Grey will depend on Business Impact and Number of Users affected as determined by the IT Helpdesk Submission Priority. A Code Grey will be called in Emergency situations only.

	Number of users affected			
		High Severity Whole hospital is affected	Medium Severity Departments or large groups of users are affected	Low Severity One user or a small group of users is affected
	High Impact Major business processes are stopped	Emergency	Critical	Major
	Medium Impact Business processes are degraded but there is a reasonable workaround	Critical	Major	Normal
	Low Impact More of an irritation than a stoppage	Major	Normal	Low

PROCEDURE FOR INCIDENT COMMAND

1. Once notification is received from the IT Manager, Incident Command will announce 3 times over the paging system, ***"Code Grey, Loss of IT Systems (state the type of system, i.e., Meditech, Telephones etc.). All areas affected by this loss of system please refer to your down time procedures."***
2. Once notification is received from the IT Manager, Incident Command will announce 3 times over the paging system, "Code Grey, IT, all clear."

PROCEDURE FOR IT MANAGER AND EMERGENCY PREPAREDNESS MANAGER

1. As soon as the Code Grey has been declared the IT Manager or designate will communicate with the Senior Administration Team and the Emergency Preparedness Manager or designate the status of the system failure.

2. The Emergency Preparedness Manager or designate and IT Manager or designate will work together to determine what type of communication needs to occur, to what team members and frequency. (i.e., meetings or email notification and involve applicable managers)
3. The Emergency Preparedness Manager or designate will coordinate any meetings that are to occur with the management team and assist with communication as needed by the IT Manager.
4. The Emergency Preparedness Manager or designate and IT Manager will coordinate a debrief meeting within one day of the code grey being over.

PROCEDURE FOR ALL STAFF

1. Adopt and follow downtime procedures until the Code Grey- Loss of IT Infrastructure is declared over.

PROCEDURE FOR DEPARTMENTAL MANAGERS

1. Ensure all staff are utilizing the departments' downtime procedures.
2. Attend all Communication Meetings called by the Emergency Preparedness Manager or IT Manager to obtain information on the status of the downtime.
3. Communicate to front line, as necessary.

Debrief meeting/recovery plan: For all subgroups included in this policy, a debrief meeting will take place within one business day where possible to evaluate current process and process improvement opportunities, and to create an action plan for resumption of services.

References:

ERHHC. (2022). Code Green-Evacuation

ERHHC. (2022). Emergency Water Shutdown.

ERHHC (2022). Routine and Additional Environmental Cleaning and Discharge/Transfer Cleaning Policy

Public Health Ontario. (2018). Best Practices for Environmental Cleaning for Prevention and Control of Infections in All Health Care Settings, 3rd Edition. [PIDAC: Best Practices for Environmental Cleaning for Prevention and Control of Infections | January 2018 \(publichealthontario.ca\)](#)

Appendix A

Code Grey- Planned Power Outage Departmental Checklist**General Information**

- Doors on backup generator
- No ventilation or heating
- Toilets will still flush
- Hot water-until tanks are drained
- 911 phone and Fire alarm system works, panic alarm is disabled
- QWP and NPH phones will work

Departmental Tasks:**Maintenance:**

- Obtain flashlights and batteries
- Battery powered lanterns located in a tote in garage (batteries in CSR)
- Upstaff
- Staff on site
- Maintenance staff to be called in to reset doors etc.

Dietary:

- Lights work
- No Phone, email, or overhead pages – Dietary will walk down to emerge with meditech list from lunch and make any necessary changes to diets.
- Fridge/Freezer on backup power
- Disposable plates, bowls, cutlery etc. for supper meal.
- Gas stove functional- can heat water, etc. No steamers
- No dishwasher
- Upstaff day before to help with all the extra prep downtime meal, day after to help with dishes
- Some hot water will be available until tanks are drained.
- Cold menu (sandwiches, salads, cold plates)

EVS/Laundry:

- Ensure floor machines are charged prior to outage
- Lights work in laundry room
- Cancel Laundry shift, or if on weekend, re-assign WL
- Wash/dry resident clothing in advance if possible, and additional bar wipes for kitchen
- Upstaff before or after outage to catch up on laundry

IT:

- Check backup batteries on server/UPS
- Check in with other departments for specific items
- Computers plugged into red outlets on backup power (ED, Registration and Acute have dedicated computers and red plugs)

Communication:

- Communicate to the Public in the "Round and About" once a date is established
- Advertise on channel 10, radio station, internal televisions
- Code Grey meeting with all departments to review checklist
- If unplanned outage (infrastructure loss), Manager On-Call/Charge nurse to be notified if after hours, Communicated as Code Grey, and communicated via on-call process

Acute Care:

- Utilize down time procedures for Medication Passes and electronic charting
- Upstaff by 1 RN to float between ED & Acute Care – can assist once online to ensure orders entered, faxed to pharmacy etc.
- Downtime procedures for all documentation – Down time bins have been all updated
- 1 of the ED cell phones for outside communication
- Utilize desk bells for call bells
- Portable suction as backup
- Refer to cheat sheet for operating electric beds manually
- Utilize battery powered lanterns
- Once date has been confirmed, arrangements will be made with the Hospitalist to round early so all orders can be entered, discharge Rx's can be faxed etc (try to complete as much work that requires phones, copiers, faxes etc prior to downtime)
- The night before there will be a list for staff to ensure all equipment that is battery operated will be plugged in Glucometer, IV pumps
- Medication fridge temperatures will be monitored hourly – if start to drop medications will be brought to the ED
- All equipment pre-charged

ED:

- Downtime procedures for documentation – Downtime bins have been all updated
- 1 ED Power Safe phone will be used for communication
- Backup generator will provide power to all red plug ins
- Use the Specialist clinics paper numbers for patients presenting to ED
- Call PTAC for MT #'s – phone number will be provided
- Dispatch will be calling cell phone for alerts and to communicate to crews – number to be provided to EMS/dispatch
- All POC testing will be working just will get a printout – will download to Meditech once online again
- Portable suction as backup
- Pharmacy on backup

LTC:

- Power safe phone for communicating emergencies
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- Red outlets have power, so oxygen can be plugged in when not running on battery (or other equipment that needs to be charged).
- Overhead lifts plugged into red outlets
- Computers at nurses stations are on backup power
- Reschedule baths for that day

- Use disposal peri wipes for resident care/peri care.
- Up staff with 2 PSW staff members and an additional RPN (float)
- Utilize down time procedure for medication passes/documentation (POC)
- Have coolers and ice pack available should medications need to be moved out of fridge.
- Lights in hallways and resident rooms are on backup power, battery operated lanterns in garage
- Warmers supplied with wipes
- Utilize lanterns in all bathrooms and staff areas
- Utilize noise makers (bells) for call bell system
- Staff/volunteers to watch doors

Lab:**Before:**

- Collect and freeze ice packs for other department usage
- Collect extra CBS boxes, Styrofoam and cooler boxes
- Order flashlight
- Make sure all glucometers are charged and in docking stations
- Make sure all salto locks to lab doors have sufficient battery
- Order manual thermometers for fridges for fridges and freezers
- Make sure all cell phones are fully charged
- Ordered extra O neg units
- Do not load extra reagents on Vitros keep to bare minimum.

During:

- Shut down all PCs in lab, collection room, double check PC's in stress lab and echo rooms
- Take all microwell reagents off Vitros and refrigerate
- Shut down all equipment
- Only manual testing available in lab
- Only POC available in ER. IF needed, lab tech will stay in ER to run point of care for RN staff
- All fridges and freezers are to remain closed. Temperatures are monitored and recorded on graph, manually, every hour.
- **Lab tech will be on-site, lab manager will be on-call.**

After power is restored:

- Make Lab Tech aware that power is restored (if they are not in the building)
- Start up all PC's
- Start up all instruments
- QC all instruments
- Manually monitor fridge/freezer temperatures for the next hour
- Collect extra thermometers and flashlight and return to CSR
- Collect extra CBS boxes, Styrofoam coolers and freezer packs.

DI:

- Use downtime procedures. (Printed and in a downtime binder along with manual day sheets so that patient testing can be tracked)
- Use of the portable Xray unit only- Ensure it is charged prior, or able to re-charge in ED
- For any studies needing to be sent to HSN or anywhere urgently, they will need to be burned to CD and sent by Taxi.

- Just thinking. With our new portable, NX software is loaded right onto it so you could actually remove "IT will take one of our NX workstations and put it on a cart. It could then be plugged in in ER. A digitizer could then be plugged directly into it to allow for processing and viewing of images." We could view the images directly on the new portable.

PT:

- Ensure all beds are plugged into red outlets
- Obtain lanterns for bathroom storage rooms
- Private Physiotherapy room would have no power
- Treadmill would not work
- Computers in gym area would not work

Health Records / Registration:

- Registration will document on a manual form.
- Utilize alphabetical list with chart number if the chart needs to be retrieved.
- Implement registration downtime procedures.

QWP:

- Utilize cell phone for communicating emergencies (calling 911)
- Notify tenants
- Notify External Service providers (NELHIN-HCC, Emergency Alert providers Carelink, Bayshore, Home Instead)
- Notify staff of menu changes (cold meals), changes to cleaning duties (no dishwasher, minimal lights in hallway only, no lights in resident rooms), Hotspot downtime
- Laundry- Resident linen to be done day before if possible.
- Make extra ice day before (could be used to keep fridge cold). *Access fridge minimally.*
- Disposable plates, bowls, cups, cutlery etc. to be collected from CSR
- Obtain battery powered lanterns from CSR (as needed)

FHT:

- Unaffected on weekends
- Vaccine fridge on backup power
- Staff to go to hospital to connect to network to contact patients

Emergency Preparedness Manager:

- Send out communication: Fire alarm IS on backup power; panic alarm is NOT (Code white/silver communicated via overhead paging **9 or by calling IC at 911). Wearable panic lanyards are to be worn for high-risk areas.

Scheduler:

- Staff is to be made aware that if they are calling in sick during the shut off time they must call the ED RN cell phone- number will need to be obtained and sent to staff.
- Staff Stat message to be sent before planned shut off

COVID-19 Assessment Centre:

If a power outage occurs on weekends:

- If COVID AC operating on weekends, the day would be cancelled and rescheduled by COVID AC staff to next operational day.

If a power outage occurs during the week/operating hours (Monday-Friday 0800-1600 hrs.) or for an extended period: COVID AC closes and staff will follow-up with all patients to reschedule (see below for details).

- Any patients who did not have electronic documentation completed will be stickered, recorded on paper chart, and submitted to Registration/ED Clerk at end of day.

Unplanned:

- COVID AC Staff to call all of those scheduled for PCR LTC Surveillance testing and reschedule for next operational day.
- For asymptomatic LTC Surveillance scheduled for PanBio rapid tests, staff can either perform testing in COVID AC or LTC Boardroom.
 - Paper charting completed, handwritten stickers for temporary tube labelling (the tubes are discarded after test completed), and employee will be registered as a visit later.
 - Manual paper documentation for all scheduling, results, charting.
- Urgent Outbreak testing-COVID AC staff to notify PHSD at 705-522-9200 ext. 772 or ext. 718.
 - If testing cannot be delayed/is required: Patient to be rescheduled by directing them to Sudbury or to call ext. 0, where the operator will direct to ED. ED will arrange for walking-well testing or otherwise as appropriate.
- All other non-urgent tests to be deferred until next operational day. COVID AC staff will follow-up with each patient to advise of closure, and if unwell to call 911 or call ahead before presenting to ED.

Patients can also be directed to Sudbury for testing, if required.