



**Lakeridge  
Health**

**LAKERIDGE HEALTH  
CONTRACTOR PROCEDURE MANUAL  
(General Conditions)  
LAKERIDGE HEALTH**

**Revised: December 2018**

Lakeridge Health's Vision is: Excellence every moment, every day. The Mission of Lakeridge Health is creating and delivering a seamless system of care embracing every patient.

Contract or service work will not interfere with this mission. Work at the Hospital will be organized and scheduled to have the least impact on our patients, their families and Lakeridge Health staff.

We therefore request that all service persons working in the Hospital be cognizant of this and plan their work and activities accordingly.

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## LH Project Lead Contact Information

All Sites Normal Business Hours are Monday – Friday 8:00 am – 4:00 pm  
Lakeridge Health (905) 576-8711

### Engineering & Infrastructure

Manager LHW / Corporate Project Coordinator	Andreas Jacovou	Ext # 3780	Cell # (905) 260-3686
Manager, LHO Engineering & Maintenance	Mark Zahra	Ext # 3615	Cell # (905) 438-0911
Manager, LHO Engineering & CUP	Raj Sharma	Ext # 3515	Cell # (289) 385-3197
Manager, LHB & LHPP	Graham Crouse	Ext. #	Cell # (905) 261-3037

### Capital Planning & Development

Project Manager	Nicole Thuot	Ext #	Cell # (905) 410-1447
Project Manager	Richard Csanadi	Ext #	Cell # (905) 261-3034
Project Manager	Marina Moukhortova	Ext #	Cell #
Project Manager	Maureen Wong	Ext#	Cell #
Project Manager	Nick Riciotti	Ext#	Cell #

### Other Department Contacts

Call (905) 576-8711, Ext # 3200 or internal dial Ext # 3200  
Please record the information here for future reference:

Contact Name: \_\_\_\_\_

Contact Ext #: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Contact Ext #: \_\_\_\_\_

## **Access to Work Site**

- All outside persons, contractors, trade persons, service persons or others who do not work at Lakeridge Health must make prior arrangements to enter the respective site by contacting the appropriate LH Project Lead (see page 2) during normal business hours and sign in with a person from the Engineering office.

## **Identification**

- Contractors who will be on Lakeridge Health property for more than three days, or will be working in a patient care area, will be required to purchase a personal photo ID badge. These are to be returned upon completion of the job.
- ID badges are not transferable and must be used only by the person to whom it is issued.
- Arrangements to obtain an ID badge are to be made through the appropriate LH Project Lead. Photo ID badges cost \$10.00 per user and are produced at the Oshawa site. ID Badges must be produced prior to working at LH.
- Lost ID badges must be reported to security immediately and replacements will be produced as above.

## **Parking**

- There is no reserved parking for contract or service personnel.
- Except in designated parking lots, parking is not allowed on Lakeridge Health property. For specific delivery or pick up areas arrangements refer to the appropriate LH Project Lead.
- Please respect all Emergency, Restricted, Wheelchair Parking Areas and other posted no parking areas.

## **Keys**

- Access to mechanical and communication rooms may be available at the discretion of the LH Project Lead in conjunction with the LH Engineering Manager.
- Entrance to restricted areas can be made by contacting the LH Project Lead. Off hours access to be coordinated in advance.

## **Deliveries/Equipment a Material Storage/Staging Areas**

- Arrangement must be made with the LH Project Lead before any tools, equipment or materials are brought on site to determine acceptable storage and internal delivery routes to work area.
- All materials and equipment deliveries will be coordinated with the LH Project Lead.
- Use of the elevators shall be arranged through the LH Project Lead in conjunction with Security.
- Where permission is granted to the Contractor to use an elevator, the Contractor shall be responsible for providing protection to the cab and shall be responsible for repairing any damage caused during the use of the elevator at his cost. The Contractor shall clear and surrender use of the elevator immediately during a Hospital emergency. The definition of any emergency shall be confirmed by the Hospital before the work commences.
- Comply with the requirements noted in Infection Control requirements during construction when transporting materials, tools & equipment to or from the work area.

## Working at Lakeridge Health

- Traffic through existing occupied areas shall be kept to an absolute minimum throughout the duration of the work. Travel between entrances, public areas and the work area will be via the most direct route and be coordinated with the LH Project Lead in advance.
- Noise, dust, odour, etc. shall be minimized to ensure tenants and patients in areas adjacent to the construction area are disturbed as little as possible. Corrective action to cease or limit disagreeable annoyances to the tenants and patients shall be implemented immediately upon notification of the LH Project Lead. This may require that work be stopped and rescheduled to a mutually agreed upon time.
- Service interruptions must be coordinated in advance through the LH Project Lead using the shutdown procedure (see page 11).
- Submit, as per agreed upon procedure, a request for any work impacting existing services at least 48 hours prior to start time for work.
- The Owner's asbestos log book is made available for the contractor review throughout project in the Engineering office.

## Work Site

- It is the responsibility of the contractor to remove all garbage debris, packaging, surplus material and scrap from the work site on a daily basis – or more often if required. Hospital containers and garbage bins may not be used unless written permission is obtained from the LH Project Lead.
- All tools, equipment and materials must be properly labeled; secured and protected (this is strictly enforced in occupied Hospital areas). The loss of any such material will be the responsibility of the contractor. The Owner assumes no responsibility for lost or stolen equipment. Use of Hospital's carts, ladders, tools and equipment is not allowed.
- Damage to Hospital equipment or property by the contractor must be reported immediately to the LH Project Lead. The contractor will be charged for the replacement or repair of same.
- Fire routes or personnel thoroughfares must not be obstructed. Fire doors must not be wedged open or latches disengaged.
- Cellular phones are permitted within designated area only (see posted signage throughout the site) as they interfere with life support and monitoring equipment. Two-way communication devices must meet hospital requirements.
- **Safety clearances are required before any cutting, welding, core drilling, open flame work or dust work is done. Submit a Hot Work Permit (Appendix B) for such work to the LH Project Lead, to obtain approval by Engineering, a minimum of 48 hours prior to the work commencing.**
- Contractors cannot directly connect a machine requiring electrical power by wiring it in to the existing base building electrical panels unless preapproved by the LH Project Coordinator in conjunction with the appropriate LH Engineering & Infrastructure Manager. Contractors and subcontractors shall provide their own exterior located generators as an alternative.
- Secure and make safe the building, premises and adjoining premises from damage during the construction period and during any period when the work is closed down for any cause.
- Materials which are to be removed in the existing building should be confirmed with the LH Project Lead as to the requirement and at the time of handover. Where services are connected to such items, services shall be removed and capped / isolated except where required for reuse where they shall be temporarily capped / isolated.

- No signs, advertisements, or notices of any kind shall be placed on or in the building, fences, hoarding or any place on the site except as specifically directed in writing and approved by the LH Project Lead (exception: safety signage).

## **Emergency and Fire Protection**

- A Code Red must be initiated immediately when fire or smoke are present. REACT is the acronym used by LH to remind all staff of the 5 keys steps to take in the event of fire.
- In case of a fire or smoke, the following procedure should be followed:
  - R** Remove people from danger.
  - E** Enclose all doors and windows.
  - A** Activate the fire alarm pull station.
  - C** Call 611. Give specific location of fire, ie: room number, and type of fire.
  - T** Try to fight the fire with appropriate extinguisher, if it can be done safely.
- When the alarm is activated:
  - a) The Fire Alarm will sound.
  - b) All magnetic door holders will be released and the fire separation doors will be closed.
  - c) An announcement will be made identifying the location of the fire, do not go through fire doors.
- All contractors and service persons on hearing the fire alarm will stop work, listen for the location of the fire and await further instructions. Persons are requested to remain in the area that they are in until they are given further instructions or the fire alarm is given the all clear. Do not go through the fire door. Work may be continued while awaiting further instructions.
- If the fire becomes more serious, an evacuation may be necessary. The fire alarm system will alarm at a faster rate followed by an instruction on the PA as to which areas are to be vacated.
- On hearing the faster alarm rate contractors will stop work and listen for the instruction.
- If the area in which the contractor is working is to be evacuated, turn off all equipment if time permits and leave the area and building immediately via the closest building exit closing all doors behind him.
- If the fire is given the all clear, the bells will cease and an announcement “Code Red – All Clear” will be made. Contractors may then continue their normal work and circulation.

## ***Emergency Codes For Hospitals***

<b>Code Red</b>	<b>Fire</b>
<b>Code White</b>	<b>Violent Patient / Physical Danger</b>
<b>Code Green</b>	<b>Evacuation</b>
<b>Code Orange</b>	<b>External Disaster</b>
<b>Code Orange CBRN</b>	<b>CBRN Disaster</b>
<b>Code Brown</b>	<b>In-Facility Hazardous Spill</b>
<b>Code Blue</b>	<b>Medical Emergency Adult</b>
<b>Code Pink</b>	<b>Medical Emergency Infant/Child</b>
<b>Code Yellow</b>	<b>Missing Person</b>
<b>Code Black</b>	<b>Bomb Threat / Suspicious Object</b>
<b>Code Purple</b>	<b>Hostage Tacking</b>
<b>Code Grey Button Down</b>	<b>Air Exclusion</b>
<b>Code Grey</b>	<b>Infrastructure loss or failure</b>
<b>Code Amber</b>	<b>Missing/Abducted Child</b>

## Temporary Fire Safety and Fire Alarm

- While work is proceeding, the contractor shall/will not affect any of the life safety systems in the area.

## Safety Program

- The contractor will supply the LH Project Lead with a copy of their construction safety program as well as all workers are to supply their proof of safety training for the specific job duty.
- All work performed at Lakeridge Health must be in compliance with the Hospital's policies and procedures.
- MSDS sheets are to be available on site and readily accessible to the LH Project Lead at their request.
- A Construction Safety Board is to be installed in a visible location.

## Property Damage

- The contractor shall be responsible for damage done by their employees and materials to the work and materials of other trades and to Owner's materials and property and shall, at their own expense, replace or repair all materials, property and work damaged to the satisfaction of the owner and in a timely manner.
- Architectural, mechanical and electrical drawings indicate the approximate locations of services as far as these are known. The contractor and subcontractors shall take all measures to verify actual location of existing services prior to start of work. Nevertheless, should any mechanical or electrical service line be broken or disrupted by operations specified under this contract, the contractor shall repair service lines and make good all damage to the approval and satisfaction of the LH Project Lead and/or Consultants. Because the breaking or disrupting of various services may cause a "matter of life or death" situation in certain Hospital departments, immediately notify the LH Project Lead whenever any service line is broken or damaged.

## Incident Reporting

- Any unplanned event that occurs as a result of construction / contractor activities must be reported immediately to the LH Project Lead.
- The contractor shall repair and make good all damage to the acceptance and satisfaction of the LH Project Lead and/or Consultants.
- The contractor is required to complete a LH Construction Incident Report and forward to the Project Lead within 48 hours of any incident occurrence (see LH Project Lead for a copy of this form).

## Continuity of Existing Services

The Hospital operates 24 hours a day, seven days a week, 365 days a year. Disruption to the operation of the Hospital must be kept to a minimum.

- Schedule and coordinate work so that services are not unduly interrupted at any time. Interruption of services must be reviewed and scheduled with the LH Project Lead so that disruption to patients and procedures are kept to a minimum. Generally, service interruptions are to be scheduled to occur after hours.
- To obtain approval to interrupt services the contractor will complete the Request for Shutdown form (see Appendix A) at least 48 hours prior to interruption of services. These forms are located in the Engineering Offices at all sites. Please be mindful that restricting

access through exterior entrances or driveways, or interior corridors can also be an interruption to hospital operations and must be scheduled.

## Harassment Policy

Contractors will be responsible for the behavior of their employees while on Lakeridge Health property. Contractors working at Lakeridge Health must demonstrate courtesy and respect in interaction with all employees, volunteers, physicians, patients and visitors at Lakeridge Health and will not engage in any form of abusive or discriminatory behavior. Any violation of the LH Code of Conduct or Workplace Violence Prevention policy is unacceptable and such behavior will not be tolerated.

## Asbestos Management Program

Copies of the Asbestos Management Program (AMP) and asbestos logs are located in the Engineering department at each site.

- AMP applies to all categories of property with the exception of vacant lands.
- AMP applies to all LH staff as well as all service providers and contractors performing work in LH facilities

## Privacy

**Lakeridge Health is committed to protecting the privacy of its patients and place the highest value on maintaining the confidentiality and security of personal health information. Please respect the privacy of our patients and do not enter sensitive areas of the hospital without prior approval from your Project Contact Lead. Also, pictures/videos are not to be taken of staff or patients without the prior written consent of the staff and/or patient(s).**

## Infection Control Procedure - During Construction

### Pre-Construction

- a) Notify Infection Prevention & Control, through the LH Project Lead a minimum of 1 week prior to start of work (except in the case of an unplanned emergency situation requiring immediate attention). Infection Prevention & Control will perform a CSA approved Preventative Measures Analysis\* according to population at risk and type of construction activity. This analysis will determine the Infection Control Procedures and any barriers or measures required prior to start, during and in completion of the specific project.
- b) Ensure all construction personnel associated with each project has received and read a copy of Lakeridge Health Contractor's Procedure Manual.
  - i. Ensure that all sub-trades and all workmen are familiar with and follow the required Infection Control Procedures.
- c) Identify possible service disruptions e.g. water, electrical, HVAC, Oxygen, etc.
- d) Review the potential for the contamination of occupied areas from air intakes or ductwork with Engineering; prior to start of work. Review the location of all air intakes so as to prevent cross contamination from the work site.
- e) Establish with the LH Project Lead and Infection Control a safe traffic pattern for workers, tools, supplies and debris removal.

- f) Identify and discuss barrier placement with the LH Project Lead and Infection Prevention & Control. For long term / large scale projects, drawings indicating hoarding lines are to be provided.
- g) All tools, carts, supplies and workers clothing must be clean when entering occupied areas.
  - i. Carts used to transport equipment/supplies through an occupied area need to be clean and may need to be covered.
- h) Before the construction project is started, requirements for cleaning the adjacent areas shall be determined.
- i) Notify LH Project Lead if all Hospital equipment and supplies have not been removed, sealed with poly, or taped in a closet or cupboard prior to barrier installation.

### **Barrier Installation: Short Term / Low Risk Population as determined by Infection Control**

- a) Prior to the start of work, including ceiling tile removal, exploratory opening of walls, ceilings or access hatches and any other dust generating activity, erect barriers, which shall comply with the following:
- b) Barriers to extend from floor to false (finished) ceiling to completely enclose and isolate the work site from adjacent occupied spaces. If ceiling tiles are to be opened then barrier must go to true ceiling unless a Control Cube (Portable Vinyl Enclosure with HEPA-Filter equipped Vacuum) is used to contain the ceiling opening.
- c) For small minimal dust generation projects, up to 10 square feet in area that can be completed within a single 8 to 12 hour work shift, barriers can be erected out of a single layer heavy gauge poly sheet with minimum 4" laps between sheets and at floor and ceiling.
- d) Seal junctions of poly sheeting and existing surfaces with tape so as to be airtight.
- e) Entry to work site to be through a double layer of poly sheeting, over lapped by at least three feet.

### **Barrier Installation Long Term / Higher Risk Population as determined by Infection Control**

- a) Barriers for larger projects or those projects that will extend beyond a single shift are required to be constructed out of solid impermeable panels screwed to steel studding spaced at 2'-0" on centre maximum. Barriers extending above false ceiling may be heavy gauge (6 mil) poly.
  - i. In certain circumstances, a heavy gauge Poly barrier may be required to protect the occupied area from dust and debris created during hard barrier installation.
- b) Vacuum (HEPA filtered equipped) and /or wet wipe adjacent protected (or occupied) area immediately following barrier installation
- c) Long term hard surface barriers (e.g. > 1 month) shall be painted to allow for regular cleaning.
- d) Barriers shall extend from floor to finished ceiling and shall be continuously sealed with tape along the bottom, top, sides and at junction of panels.
- e) Extend the dust barrier above the finished ceiling or provide airtight isolation to separate the work site from the ceiling space in occupied areas.
- f) Access to the work site shall be through an airtight anteroom (vestibule), complete with walls and ceiling to completely isolate the anteroom from occupied areas.

- g) A door equipped with door closer, weather stripping, door sweep, and keyed locking device shall be provided from occupied areas to the anteroom. Provide similar door from anteroom to work site.
  - i. Seal doorframe to barrier walls with tape or caulking.
- h) Arrange anteroom and doors so that one door can be closed prior to opening the second door and is large enough to hold equipment and debris carts so that one door is closed before the other is opened.
- i) Lock access to work site when workers are not on site. Provide a key to security office through the LH Project Lead.
- j) Install “high tack” contamination mats within the anteroom and outside the anteroom door, to remove dust and dirt from shoes and wheeled traffic. Replace as required (i.e. no longer sticky).
- k) Keep anteroom clean and clear of tools, materials, debris and rubbish. Wet mop the area immediately in front of anteroom thoroughly on a daily basis, if it becomes dusty or dirty and as requested by LH staff. Vacuum the walls and ceiling of the anteroom, daily with a HEPA equipped vacuum cleaner.

## Worksite

- a) Post signage to maintain site (e.g. “Construction Zone”, “Entrance restricted to Construction Personnel only” or “Do Not Shut Off Exhaust Fan”).
- b) Provide an airtight seal to all ductwork from the work site and adjust airflow to ensure that the work site is under negative air pressure to the adjacent areas of the Health Care Facility at all times.
- c) Securely seal any gaps, holes or leakage paths around any pipes (Including plumbing penetrations and electrical outlets) between construction site and adjacent areas of the hospital.
- d) Removal of debris, tools, equipment and materials from the work site shall be via an agreed to route and at an agreed to time, generally after hours.
  - i. Transport debris in clean containers with tightly fitting lids or completely cover debris with a wet blanket or wrapped in heavy gauge poly. Wipe and/or vacuum clean containers prior to leaving the site to reduce risk of dust transfer to occupied areas.
  - ii. Cover all rubbish chutes and bins and thoroughly wet rubbish and/or debris prior to placing in chutes. Locate rubbish chutes to prevent dust migrating into air intakes
- e) Areas of external excavation and the connecting road way must be kept moist at all times to keep dust to a minimum.
- f) Carefully remove ceiling tiles so as to keep them in a horizontal position until vacuum cleaned with a HEPA-filter equipped vacuum cleaner.
  - i. Clean all ductwork, conduits, cable trays etc. and ceiling space with a HEPA equipped vacuum cleaner, prior to or immediately after removal of existing ceiling tiles and prior to start of work. Replace ceiling tiles should work be interrupted or stopped for any reason.
- g) Seal and make air tight all exterior windows and doors in the vicinity of a) site work b) demolition and c) rubbish bins and chutes.
- h) Maintain negative pressure within the construction area by using:
  - i. Portable HEPA filter-equipped air filtration units that include pressure gauges and an alarm (High Risk Areas), or
  - ii. HEPA-Filter equipped vacuum (Lower risk areas as determined by Infection Control).
  - iii. Filters shall be monitored and replaced if clogged or functioning below the manufacturer’s specifications.

- iv. Reminder: Anteroom should be negative to the occupied area, and positive to the worksite. Worksite must be negative to Anteroom and adjacent occupied areas.
- i) Ensure that the air is either exhausted directly outside and away from intake vents or filter through a HEPA filter before going through regular exhaust and possibly being recirculated. Air movement from all adjacent occupied areas of the health care facility into the construction area shall be monitored to ensure that it exceeds 10m/min and that the negative pressure differential with respect to all adjacent building areas is no less than 7.5 Pa (0.03wc). High-efficiency exhaust fans with High-Efficiency Particulate Air (HEPA) filters shall be used for the duration of the work.
- j) Maintain barriers throughout the work. Repair or replace as required or instructed. Replace torn or dirty poly sheeting and reapply tape as required to maintain airtight barrier.
- k) Clean immediately outside the work area with a HEPA filter-equipped vacuum cleaner every day or more frequently if necessary.
- l) Workers must use the route identified to enter and exit the work site. Workers should not enter the occupied hospital unless the hospital and Infection Control have identified an approved route. Prior to entering an occupied area, dust must be removed from the body, clothing and shoes using a HEPA equipped vacuum cleaner; as well, when workmen leave the work site and enter occupied areas; or workmen must wear coveralls which are to be removed prior to leaving the work site.
- m) An entrance and if possible an elevator shall be designated by the Hospital for use by the Contractor to transport material and workmen to and from the work site. **DO NOT TRANSPORT** construction personnel, materials or debris in an elevator that is used to transport patients, visitors and staff.
  - i. Ensure that the dedicated elevator is vacuumed (HEPA) and damp mopped daily (or more often if necessary) to remove dust.
  - ii. If an elevator is not available for use by the Contractor, workmen must use a designated stairwell.
  - iii. Contractor shall ensure assigned elevator and/or stairwell remains free of dust and debris and must be cleaned on a daily basis, as required, and at the end of the day.
- n) In areas designated by the Hospital (i.e. Operating Rooms) workmen may be required to wear protective clothing. **DO NOT ENTER THESE AREAS** without protective clothing if directed.
- o) For small projects, tools, carts and/or toolboxes are to be clean and may be kept in the area immediately adjacent to entry to the barrier.
  - i. For larger projects, toolboxes and equipment are to remain within the work site barriers until completion of work. Do not leave tools or equipment unattended in any occupied areas
  - ii. Thoroughly vacuum all tools, toolboxes and equipment prior to removal from behind work site barrier.
- p) Use water or dust abating material to keep dust to a minimum in the construction area.
  - i. Provide pest control if required.
  - ii. Clean the construction area with HEPA filter-equipped vacuum cleaner, a wet mop, or both, as necessary.
- q) Replace any and all existing or new ceiling tiles, which become wet due to work being done by the contractor.
- r) Replace any and all drywall that becomes wet due to flooding or work being done by the contractor.

- s) Use cryogenic procedures to isolate valves and supply water piping. Hot and cold domestic water piping must not be drained. If drained for any reason, coordinate with the Hospital to have piping sanitized.
- t) Report any water leaks or flooding immediately to the LH Project Lead, who will inform Engineering, Infection Control and the affected patient care areas.

## After Construction

- a) Infection Prevention & Control / I.P.C. Appointed Designate is required to inspect the site prior to removal of barriers.
- b) Thoroughly vacuum (HEPA filter-equipped) and/or wet clean the work site and all surfaces of the dust barriers and anterooms in preparation for removal.
- c) Poly barriers to be erected on the non-construction side of the hard barriers before removal of the hard barriers.
- d) Thoroughly vacuum and/or wet clean the areas occupied by barriers. Repair finishes damaged by barrier installation or the work and touch up paint as required to leave the site in the same condition or better than, it was prior to start of work.
- e) Infection Prevention & Control / I.P.C. Appointed Designate is required to inspect the site prior to removal of the Poly barriers.
- f) Environmental services to do final clean before removal of the poly barriers.
- g) Remove barriers at times designated by the Hospital.
- h) Infection Prevention & Control/ I.P.C. Appointed Designate is required to inspect the site after removal of barriers.

\*Z317. CSA Standard - Most current version of the CSA Standard, Infection Control during Construction or Renovation of Health Care Facilities is used by Infection Control to do Preventive Measures Analysis.

\* Specific reference for 4.8.1 (sections 6.6.2. and 8.3.22) of the above document.

**Failure to comply with Infection Control requirements may be cause for stoppage of work. Costs that may be incurred as a result of non-compliance are the responsibility of the Contractor.**

## Request for Shutdown Procedure

Construction managers/contractors and subcontractors must request the scheduling of all construction related utility shutdowns through the appropriate LH Project Contact. LH Engineering and Infrastructure staff is always responsible for the disconnection or shut off of all valves and circuit breakers for utility outages. **Contractors and sub-contractors shall not shut down, tie into or disrupt any utility systems unless specifically directed to do so by the appropriate LH Engineering Manager or Project Coordinator. Contractors shall not bag, disconnect, or impede any smoke or heat detection systems.** The utilities affected by this policy include but are not limited to all plumbing, fire sprinkler, gases, smoke detection, fire alarm, electrical, telephone, data, security, steam, heating, air conditioning, exhaust and conveying systems. Contractors must never assume the work they are performing in any LH facility is not covered under this policy. The contractor's request for a utility shutdown must be performed in accordance with the procedures outlined in this policy and/or contractor specifications.

## Specific Information:

- a) The utility shutdown is a joint process for the Contractor, the Project Contact and Engineering and Infrastructure staff to identify the utility that needs to be shutdown, all areas of the building that will be affected by the shutdown, and any other associated utilities that might be affected. (Example: An electrical shutdown, which shuts down an associated air conditioner.)
- b) The contractor will complete a “Request for Shutdown Form” located in the Engineering Offices (see Appendix A”). This form must be submitted to the appropriate LH Project Lead a **minimum of 48 hours prior to the requested time of the shutdown.**
- c) The contractor’s request for a shutdown must include the following information:
  - Project Name
  - Submission Date
  - Location of requested shutdown i.e. (LHO, A-Wing, 3<sup>rd</sup> Floor)
  - Requestor Information
  - Type of Shutdown request (i.e. Electrical, sprinklers. etc.)
  - Areas and/or systems impacted
  - Reason for the shutdown (i.e. Install breaker, add sprinkler head...)
  - Requested shutdown start and stop date and time
  - Signature of trade’s person performing the shutdown
- d) Upon receipt of the Contractor’s Request for Shutdown Form, the LH project contact will forward request to Engineering and Infrastructure for their review and approval.
- e) Upon receipt of request for shutdown, Engineering and Infrastructure staff investigates and determines the impacts and/or risks to the facility. Depending on the complexity of the shutdown, a meeting may be scheduled with LH Project Contact, Engineering, the Contractor and all appropriate subcontractors to coordinate the logistics of the shutdown.
- f) Engineering and Infrastructure will return the completed form to the Project Contact within 24 hours of issuance either approving or denying shutdown with an explanation.
- g) Upon receipt of an approved request for shutdown, the Project Contact will create the appropriate shutdown impact notice. Upon receipt of a denied request for shutdown, the Project Contact will meet with Engineering and Infrastructure and the contractor to resolve unanswered questions and determine a new date.
- h) The contractor/subcontractor must be present on site, have all preparations in place and be ready to begin the shutdown at least 15 minutes prior to the posted start time of the shutdown. This preparation includes having all of the equipment, supplies and manpower needed at the correct location to perform the work. Failure to do this can result in the shutdown being cancelled and re-scheduled for another time. After hours, the contractor must report to Security or contact the Central Utilities Plant at Ext. 3518 for LHO only. All other sites must be arranged with the appropriate on-call Maintenance Engineer via Locating @ ext. 3200.
- i) When the contractor work is completed, the contractor/subcontractor must notify the appropriate Engineering and/or Security person so the system can be re-energized.
- j) The contractor/subcontractor and the Engineering representative responsible for the work, must remain on-site until the system is fully re-energized and no other deficiencies have been detected.

## Safety Regulations & Welding Procedures

Before commencement of any welding, soldering or cutting in Lakeridge Health, the following precautions and procedures must be strictly adhered to:

- a) Person(s) who use the equipment must be competent and have permission to use the equipment.
- b) The equipment to be used must first be checked to make sure it is in good and safe operating condition.

When all of the following procedures and precautions have been taken, you may begin to weld, solder or cut.

- a) Obtain an approved Hot Work Permit (Appendix B) from Engineering.
- b) Check with Security to verify smoke detectors and fire alarms have been disconnected (request for shutdown must be requested 48hrs in advance). Security will notify the Fire Department and Telecommunications.
- c) Before starting to weld, solder or cut, make certain there is no combustible material nearby or opening leading to combustible material, that flame, sparks, hot slag or hot metal might ignite.
- d) Be sure to keep a clear space between cylinders and the work. This is important so that cylinders and regulators can always be reached quickly.
- e) Never use acetylene at pressures above 15 LBS PER SQ in. Using acetylene at pressures in excess of 15 LBS PER SQ. in. is a hazardous practice. To do so is contrary to insurance regulations and is prohibited by law in many places.
- f) Never release acetylene into the air near other welding or cutting or sparks or flames. If it is necessary to release acetylene, release it out in the open, in a place where a mixture with air will not be ignited.
- g) Always make sure hose is securely connected before using equipment. When using equipment, after making or remaking connections at the blowpipe and regulators, test for leakage.
- h) Never hang a torch with its hose on regulators or cylinder valves. The weight of a torch and hose may strain or damage the regulator, or interfere with the quick closing of the cylinder valve.
- i) Use special care when working in restricted or confined spaces (following Occupational Health & Safety Act, Healthcare O.Reg 67-93).
- j) Special clothing should be worn, preferably fireproof, but certainly wool, which is relatively resistant to sparks and hot slag.
- k) Never do any welding, soldering or cutting on containers until they have been thoroughly cleaned and safeguarded.
- l) Protect cylinders, hose, legs and feet when flame cutting. Do not cut material in such a position that will permit sparks, hot metal, or the severed section to fall on the cylinder, hose, legs or feet.
- m) Avoid dropping stub ends of welding rods on floor. Put them in a suitable container. Carelessly dropped stub ends are a fire hazard, and also if stepped on, may cause a serious fall, resulting in serious injury. A suitable container partly filled with water and within easy reach is a good place in which to dispose of these short ends.

\*\*\*\*\* Where welding, soldering or cutting must be done near combustible materials, special precautions should be taken to make certain that flame, sparks, hot slag or hot metal do not reach combustible material, and thus start a fire. It is especially important to take special precautions in the case of portable cutting operations. Cutting produces a greater quantity of sparks and hot slag than does welding and locations where portable cutting equipment is used, must therefore, be thoroughly safeguarded against fire.

### **Additional Precautions for Safeguarding Against Fire:**

- Never use welding, soldering or cutting torch where sparks or open flame of any kind would be a hazard. Flames are a hazard in any rooms containing flammable gas vapors, liquids or dust, or any material that ignites easily.

- Take welding, soldering or cutting work that can be moved to a location where there will be no possibility of setting fires. This must always be done when the metal to be welded, soldered or cut is in a place where open flames are prohibited. This practice may also be sensible in many other locations, even if open flames are allowed. If the work cannot be moved, combustible materials should be taken a safe distance away, if possible. If cutting is to be done this distance may be 30 to 40 feet or more.
- Floors should be swept before the torch is lit. If flammable materials cannot be moved, use sheet metal guards, flame proof curtains, or similar protection to keep sparks close to the work you are doing.
- Have someone stand by to watch the sparks so that they can give warning if sparks get beyond the protective guards. It is not reasonable to expect whoever is doing the welding or cutting to watch the sparks, since his attention is on the work. In addition, the sparks cannot always be seen easily through goggles.
- Be ready to put out any fire promptly with fire extinguishers, pails of water, water hose, or sand. If there is a possibility that a smoldering fire may have been started, keep a worker at the scene of the work for at least half an hour after the job is completed. Have them look carefully for smoke or fire before leaving.
- Never forget that heavy cutting sparks sometimes fly 25 to 30 feet or more and hold their heat for several seconds after landing.

## **References:**

LH Hot Work Policy

LH Red Tag Permit Policy and Procedure

LH Asbestos Management Program

LH Shutdown Policy & Procedures

LH Control Cube Policy & Procedure

LH Code Red Policy

Code of Conduct Policy and Procedure

LH Workplace Violence and Harassment Prevention Policy and Procedures

## Appendix A: Request for Shutdown Form

REQUEST FOR SHUTDOWN		
Project Name:	_____	
Date Submitted:	_____	
Campus Building(s) Affected:	_____	
Locations of Work:	_____	
Shutdown Start	Date _____	Time _____ <input type="checkbox"/> AM <input type="checkbox"/> PM
Shutdown End	Date _____	Time _____ <input type="checkbox"/> AM <input type="checkbox"/> PM
<b>Requestor Information</b>		
Person Requesting Shutdown:	_____	
Company Name:	_____	
Phone:	_____	
Fax:	_____	
Cell Phone:	_____	
Email:	_____	
<b>Type of Shutdown [if more than one listed below, please send to Engineering and Security]</b>		
<input type="checkbox"/> Water Domestic Cold	<input type="checkbox"/> HVAC Building Supply	<input type="checkbox"/> Sprinkler
<input type="checkbox"/> Water Domestic Hot	<input type="checkbox"/> HVAC Building Exhaust	<input type="checkbox"/> Steam
<input type="checkbox"/> Electrical	<input type="checkbox"/> Fire Alarm Bypass	<input type="checkbox"/> Pre Action Sprinkler System
<input type="checkbox"/> Medical Gas	_____	
<input type="checkbox"/> Asbestos Log Review Completed	_____	
Other System Shutdowns:	_____	
Reason for Shutdown:	_____	
Known Building Impacts:	_____	
Trade Person Performing Shutdown	_____	
Contractor Name and Contact Information	_____	
Engineering and Infrastructure Contact	_____	
LH Project Contract	_____	

# HOT WORK PERMIT

**STOP!**

Avoid hot work or seek an alternative/safer method, if possible.

This *Hot Work Permit* is required for any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to: brazing, cutting, grinding, soldering, torch-applied roofing and welding.

**Instructions**

1. Firesafety supervisor:
  - A. Verify precautions listed at right (or do not proceed with the work).
  - B. Complete and retain Part 1. (Part 1A is for quality assurance documentation, if necessary.)
  - C. Issue Part 2 to person performing hot work.

**HOT WORK BY**

- Employee
- Contractor

DATE \_\_\_\_\_ JOB NUMBER \_\_\_\_\_

LOCATION: BUILDING AND FLOOR \_\_\_\_\_

IDENTIFY OBJECT/SPECIFIC LOCATION \_\_\_\_\_

NATURE OF JOB \_\_\_\_\_

NAME (PRINT) AND SIGNATURE OF PERSON PERFORMING HOT WORK \_\_\_\_\_

I verify the above location has been examined, the precautions checked on the Required Precautions Checklist have been taken to prevent fire, and permission is authorized for this work.

NAME (PRINT) AND SIGNATURE OF FIRESAFETY SUPERVISOR/OPERATIONS SUPERVISOR \_\_\_\_\_

TIME STARTED: \_\_\_\_\_ A.M. \_\_\_\_\_ P.M. TIME FINISHED: \_\_\_\_\_ A.M. \_\_\_\_\_ P.M.

Permit Expires DATE \_\_\_\_\_ TIME \_\_\_\_\_ A.M. \_\_\_\_\_ P.M.

Note: Emergency notification on back of form. Use as appropriate for your facility.

To order additional hot work permits or other FM Global resources, order online 24 hours a day, seven days a week, at [www.fmglobalcatalog.com](http://www.fmglobalcatalog.com)



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**Part 1**

Y/N/A

- The fire pump is in operation and switched to automatic
- Control valves to water supply for sprinkler system are
- Hose streams and extinguishers are in service/operable
- Hot work equipment in good working condition

**Requirements within 35 ft. (11 m) of hot work**

- Ignitable liquid, dust, lint and oily deposits removed.
- Explosive atmosphere in area eliminated.
- Floors swept clean.
- Combustible floors wet down, covered with damp sand or fire-resistant sheets.
- Remove other combustible material where possible.
- Otherwise, protect with FM Approved welding pads, blankets and curtains, fire-resistant tarpaulins or metal shields.

- All wall and floor openings covered.
- FM Approved welding pads, blankets and curtains installed under and around work.

- Protect or shut down ducts and conveyors that might carry sparks to distant combustible material.

**Hot work on walls, ceilings or roofs**

- Construction is noncombustible and without combustible covering or insulation.
- Combustible material on other side of walls, ceilings or roofs is moved away.

**Hot work on enclosed equipment**

- Enclosed equipment cleaned of all combustible material.
- Containers purged of ignitable liquid/vapor.
- Pressurized vessels, piping and equipment removed from service, isolated and vented.

**Fire watch/hot work area monitoring**

- Fire watch will be provided during and for one (1) hour after work, including any break activity.
- Fire watch is supplied with suitable extinguishers, and where practical, a charged small hose.
- Fire watch is trained in use of equipment and in sounding alarm.
- Fire watch may be required in adjoining areas, above and below.
- Monitor hot work area for up to an additional three (3) hours after the one (1) hour fire watch.

Other precautions taken \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

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