If machinery or equipment could unexpectedly active or if the release of an energy source could cause injury, the energy source must be isolated and controlled. UBC De-Energization and Lockout Program outlines the roles and responsibilities and the Occupational Health and Safety regulatory requirements.

This group lockout safe work procedure (SWP) must be in place and followed when there are more than 3 energy isolating devices to be locked out, and/or a large number of workers will be working on the equipment and/or where the energy isolating devices are a considerable distance apart. This group lockout SWP must be reviewed by trained and authorized employees who will perform de-energization and lockout.

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| **MACHINERY/EQUIPMENT SPECIFIC INFORMATION** |
| **DEPARTMENT** |  | **ROOM NUMBER** |  |
| **BUILDING** |  |  |  |
| **MACHINERY/EQUIPMENT NAME(S)****Include photos, if possible** |  | **MACHINERY/****EQUIPMENT****NUMBER(S)** |  |
| **REQUIRED WORK:****List ALL applicable work activities for when lockout is applied** |  |
| **HAZARDOUS ENERGY SOURCE****Select ALL the hazardous energy source(s) that need to be controlled** | [ ] Electrical |
| [ ] Kinetic |
| [ ] Potential: | [ ] Mechanical Potential Energy[ ] Hydraulic Potential Energy[ ] Pneumatic Potential Energy[ ] Gravitational Potential Energy |
| [ ] Thermal |
| [ ] Chemical |
| [ ] Radiation |
| **ENERGY-ISOLATING DEVICES/LOCKOUT POINTS** | [ ] Group Lockout Checklist established that lists all necessary energy isolating devices that require lockout |
| **EQUIPMENT REQUIRED FOR LOCKOUT** | [ ] Personal Locks[ ] Scissor or Multi-Lock Hasps[ ] Personal Lockout tags[ ] Electrical Lockout devices (e.g. circuit breaker, electrical plug)[ ] Cable lockout devices[ ] Valve lockout devices (e.g. gate valves, ball valves, plug valves, butterfly valves)[ ] Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **PRE-GROUP LOCKOUT PROCEDURE** |
| **Describe detailed procedures to be followed prior to applying group lockout** | Prior to de-energization and lockout, Qualified Supervisor must ensure:* a pre-job meeting is held with all workers who will be applying lockout and working on the machinery. During the pre-job meeting, 2 Qualified Workers applying group lockout and Lead Hand will be identified
* every employee is trained in de-energization and lockout and has reviewed this safe work procedure
* group locks and keys are available only to the 2 qualified workers and qualified supervisor
* Group Lockout Checklist has been established that lists all the necessary energy isolating devices that require lockout
* Lead Hand will take on a lead role in group lockout to ensure all work is done in a safe manner and that group lockout procedures are followed
* all lockout equipment is available and in good working condition
* Qualified Supervisor develops this safe work procedure and it is made readily available.
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| **GROUP LOCKOUT PROCEDURE** |
| **Describe detailed procedures to be followed as to how to perform group lockout** | The 2 Qualified Workers must take responsibility to:1. Ensure a Group Lockout Checklist that lists all the necessary energy isolating devices that require lockout has been established
2. Individually lock out all energy isolating devices identified on the Group Lockout Checklist using group locks and group lockout tags and fill out the Group Lockout Checklist
3. Clearly print their names and contact phone numbers on the Group Lockout Checklist
4. Sign the Group Lockout Checklist
5. Place all group lockout keys in the group lock box and secure group lock box with a positive sealing device acceptable to WorkSafeBC. Record the identification number of the positive sealing device on the Group Lockout Checklist
6. Position group lock box in a prominent location as near as possible to the machinery or equipment that is locked out
7. Post the signed Group Lockout Checklist and this site-specific group lockout SWP by the group lockbox.
8. Verify/test the effectiveness of the de-energization and lockout process after group lockout applied, by attempting to operate the machinery or equipment and confirming it does not operate. Make sure all affected employees are clear of the machinery or equipment prior to verifying/testing.
9. Group lockout is now in place, but before maintenance work can proceed, all authorized employees must apply their personal lock and personal tag.

All authorized employees assigned to perform maintenance work on the machinery or equipment will:1. Apply a personal lock and personal tag to the lock box. Each authorized employee must make sure the serial number of the positive sealing device matches the serial number recorded on the Group Lockout Checklist
2. Once all personal locks and personal tags have been applied, machinery or equipment is now de-energized and locked out and maintenance work may proceed.

***\*\*\*NOTE: Elaborate on the above steps so that it is specific to the machinery or equipment that needs to be locked out.*** |
| **GROUP LOCKOUT REMOVAL PROCEDURE** |
| **Describe detailed procedures to be followed when work is complete and group lockout is to be removed.** | Upon completion of maintenance work, the authorized employee(s) will:1. Remove their personal lock and personal tag.

Once all authorized workers have removed their personal locks and personal tags, Lead Hand will: 1. Confirm that all work has been complete in a safe manner, that group lockout procedures were followed, and that the machinery or equipment is safe to be restarted
2. Sign the Group Lockout Checklist
3. Notify the 2 qualified workers that it is safe to end the group lockout.

Once Lead Hand confirms it is safe to end group lockout, the 2 qualified workers will:1. Confirm Lead Hand signed the Group Lockout Checklist
2. Verify that no personal locks are on the group lock box
3. Ensure all affected employees are clear of the machinery or equipment and in a safe location, prior to removing group lockout
4. Ensure all tools and maintenance equipment has been removed from the area.
5. Remove positive sealing device from group lock box. If the 2 qualified workers are different than the 2 qualified workers removing the positive sealing device are different, they must also clearly print them names and contact phone numbers on the Group Lockout Checklist and sign the Group Lockout Checklist. Once the positive sealing device has been removed from the group lock box, the group lockout is no longer in effect
6. Remove all group locks and group lockout tags.
7. Start the machinery or equipment according to normal operating procedures.
8. Notify affected employees that maintenance is complete and operation may resume.
9. Give completed Group Lockout Checklist to the Qualified Supervisor for record keeping

***\*\*\*NOTE: Elaborate on the above steps so that it is specific to the machinery or equipment that needs to be locked out.*** |

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| **THIS SAFE WORK PROCEDURE WAS DEVELOPED BY:** |
|  |  |  |
| **NAME (PLEASE PRINT)** | **SIGNATURE** | **DATE** |