APPENDIX G – RESPIRATORY PROTECTION

A Respirator is a device that is designed to protect the user from inhalation of potentially harmful contaminants, such as dusts, fumes, mists, or gases. Manitoba Regulation 217/06, Part 6, Section 6.15

TYPES OF RESPIRATORS:

All respirators must conform to CSA Z94.4. There is a wide range of respirator types and sizes used for various purposes, but two main categories are: the Air-Purifying Respirator (APR), which forces contaminated air through a filtering component (powered and non-powered), and the Air-Supplied Respirator (ASR), in which an alternate supply of fresh air is delivered to the user.

Air-purifying respirators may be further divided into two major classes--particulate removing (like N-95), and vapor and gas removing (like half-face and full-face). In the former case, the removal process depends primarily on the size of the particulate, regardless of the composition. In the latter case, the vapor or gas is adsorbed onto an activated charcoal media or chemical, which may be selective in the material adsorbed.









N95/100 masks

1/2 mask

Full face mask

Air-supplied

DO I NEED TO WEAR A RESPIRATOR?

To determine if a respirator is needed to protect from exposures to airborne contaminants in the workplace, employee(s) should consult with his/her supervisor and safety officer to determine various other options. If it is determined that the use of respirator may be necessary, an exposure assessment is required. An exposure assessment will determine the type of respirator that must be used for the potential airborne contaminants of concern.

However the following tasks require mandatory use of a respirator:

- Working with Asbestos
- Working with silica
- Working in areas with high levels of dust, wood dust
- Working with some types of chemicals, such as stripper.

Note: The use of a disposable N95/100 mask may be voluntary for individuals that are sensitive to certain chemicals or dust. All respirators must be obtained through the divisional Safety Officer.

Note: If you wear a respirator that requires a seal with your face, <u>you must be clean-shaven</u> where the respirator seals with your face. There are no exceptions.

MEDICAL CLEARANCE:

An individual requiring a respirator must receive medical clearance from a physician or other licensed health care professional. The purpose of medical clearance is to ensure that the user has adequate respiratory and cardiovascular fitness prior to wearing a respirator. Forms can be obtained from the divisional Safety Officer.

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RESPIRATOR TESTING:

To protect you, your respirator must prevent you from breathing the contaminated air around you. All respirators with tight-fitting face pieces must be checked to ensure they fit properly. When fit properly a respirator forms a good seal on your face. This seal is necessary to prevent contaminated air from leaking pas the sides, top or bottom of the respirator then being inhaled. Fit testing must be done:

• FIT TESTING:

- When you first received your respirator you must be Fit Tested. Fit testing is conducted by an external company. Please see the Safety Officer.
- Additional times fit testing must be carried out:
 - If a worker has had major weight loss or gain; changes to facial or dental features that could affect the respirator fit
 - Change in respirator (make/model/half/full face)
 - Change in working conditions or the user experiences discomfort during use
 - Every two years

• PERSONAL SEAL CHECK:

• Every time a worker dons a respirator they must conduct a personal seal check (both positive and negative) regardless of the type of respirator.

INSPECTION, MAINTENANCE AND STORAGE:

Single-use, disposable respirators (e.g., N95 respirator) must be disposed of after use or once soiled, damaged, or if it becomes difficult to breathe while wearing it, whichever occurs first.

Non-disposable respirators (such as plastic ½ mask or full face) must be properly maintained to retain its original effectiveness. Maintenance includes periodic inspections, cleaning, disinfecting, proper storage, and repair of respirators used by employees. If respirators are modified in any way, their protection factors may be reduced.

Inspection:

Respirators must be inspected before each use and cleaned after each use. The inspection must include:

- A check of respirator function, tightness of connections and the condition of the face-piece (cracks, tears and dirt), head-straps (elasticity), valves (distortion, cracking, tearing, dirt, properly seated), connecting tube (clean, not missing any pieces), filter gaskets (properly seated and in good condition), exhalation valve (remove look for dirt, distortion, cracking, tearing), cartridges (no damage), and canister or filters.
- A check of rubber or elastomeric parts for pliability and signs of deterioration (loss of elasticity).

Maintenance:

Each respirator must be cleaned and sanitized after each use. Do not clean with solvents. Remove cartridges, clean and dismantle face piece. Clean with respirator wipes or by immersing in mild soapy water. Dry completely and reassemble. Do not place in dishwasher. Respirators must be dry before storage in a plastic bag otherwise it may develop mold or mildew.

Storage:

After a respirator has been inspected and cleaned, it must be stored in a manner that protect it from damage, contamination, dust, sunlight, face-piece deterioration, extreme temperatures, excessive moisture, and damaging chemicals. Each reusable respirator must be stored in a plastic bag to protect it from contamination or damage. Do not hang from the respirator straps. Cartridges must be stored, with all openings taped shut and sealed in a separate plastic bag until ready for use.