Safe Work Procedures Table of Content

4.1 - JOB PROCEDURES (DURABLES)

4.1.1 - LINE WORK PROCEDURES

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying Debris, Pinch Points, Strains, Sprains, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest/Flag Suit (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Eye Wash Station, Fire Blanket, Equipment checklist, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to participating in Line Work Procedures and have the correct class of driver license.

- *Pre-Trip inspections of all equipment must be completed prior to operations and an emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. A spotter must be used when moving through any intersections on a job site.
2. Flag person is required for grinding crew and applicating crew when away from blocker truck and not facing traffic.
3. Warning signs must be placed prior to the job site and additional signs are positioned throughout the job site as directed by the foreman and sign log completed.
4. Detour for grinding; 1 ton is used with appropriate message displayed on the arrow board and taper of cones behind it.
5. Stay within your set-up detour. If the milling crew advances to the end of the detour, they must either wait for the detour to be extended or carry pylons with them to extend it as they go.
6. Detour for application; Pick up or cube van with taper behind it. This is used to detour traffic for applicator.
7. As the applicator fills each lane line put a cone down prior to each line, when it is a solid line alternate from side to side. Always follow your foreman's instructions.
8. The cooker driver will fill the cooker or help the applicator as per the foreman's instructions.
9. Once the applicator is empty, it is refilled as required , a new taper is required behind the cooker truck when the cones are being picked up and the blocker truck is moving up, repeat the process.

10. Once grinding is finished, the grinder and sweeper are parked by the trailer or a safe location, with cones behind and beside them. Worker will then assist as per foreman's instruction. Once all open grinds are filled and hard, all equipment is moved off the road and travel lanes are open as soon as possible.
11. Always park in a safe area, in a turn bay or away from traffic when possible. Ensure there are no catch basins or manhole near units when parked, if unavoidable utilize the “snake” socks to block of any areas that have the potential to reach water ways.

4.1.2 - S&S FW300 GRINDER

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Dust, Silica, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest/Flag Suit (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Fire Blanket, Fire resistant gloves and/or Kevlar Sleeves, Equipment checklist, Refer to Hazard Assessment, TAS and ERP. OSCAM or Sign Log when required.

Training Required;

Employees must be deemed competent prior to operating the Grinder and have the correct class of driver license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Conduct a pre-trip; Check oil, hydraulic and Fuel levels. Check milling head condition and visually check hydraulic hoses and fittings for tightness and damage.

2. Loading the Grinder. Have a spotter. Ensure back of cube van is clean, organized and there is ample room for the loading of the grinder. Ensure loading ramps are in the proper position. Slowly guide the grinder up the ramps, idle machine down and secure it using ratchet boomers and chains. Always chock the tires before lifting the ramp.

** When loading onto a trailer, follow practice: Loading and Unloading Equipment.

3. Unloading the Grinder. Have a spotter. Position loading ramps, release ratchet boomers and chains. Ensure drive lever is in neutral and the safety bar is latched. Start grinder and slowly take machine down the ramps. Store and secure ramps, ratchet boomers and chains.

** Always use extreme CAUTION when loading or off-loading grinder.

4. Installing/Changing milling head. Ensure grinder is parked in a safe area. Shut off Engine, turn hydraulic drive lever to off position (horizontal to lines). Loosen Cylinder head screws, rotate head 90 degrees within collars until milling head becomes free. Install new milling head in the reverse order.

**Rotation is counter clockwise. Be cautious around milling head area as metal is exposed to long periods of heat. Use a fire resistant blanket to cover hot metal before working in the area.

5. Job Site. Establish traffic control, position grinder on per mark while moving in reverse. Engage milling head, slowly lower milling head and start the grinding process (the rotating milling head will push the grinder towards you when it makes contact with the asphalt surface). It's a good idea to heat the asphalt with the tiger torch head prior to grinding as it will soften it and make it easier to start the process without any kickback.

6. Adjust milling head to desired depth using the hand wheel in the center of the frame. If additional heat is required, install a tiger torch to grinder, monitor heat continuously. Do not let the torch sit idle over one area as it will result in burning the asphalt.

7. Shut Down. Close hydraulic drive valve to milling head. Move grinder to rear of cube van or trailer. (make use of flaggers as required) Load machine and secure it. Ensure any loose grid heads are returned to rack in cube van. Remove propane bottle and secure it in the 1-ton.

8. A Spotter must be used when moving through an intersection on job sites.

9. Always park in a safe area, away from traffic when possible.

** Always use Thermo Kevlar sleeves when working around heat or open flame.

4.1.3 - BREINING 1400/1600 COOKERS

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Fire)
• Injuries to workers and public (Flying debris, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Fire Blanket, Kevlar Sleeves, Hammer Gloves Resistant Gloves, Equipment checklist, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Cooker, be Propane certified and have the correct class of driver license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre job-site, Conduct pre-trip inspection; check propane, heating oil and hydraulic levels. Visually inspect hydraulic and propane lines. Check and service pup engine as required.

2. Conduct a Schedule 1 as per NSC.

3. Start Up. Start cooker burner and pup engine. Fill melting tank with small chunks of thermoplastic, Hammer gloves to be utilized when breaking bricks. Slowly start the agitating process, moving agitator forward and reverse until full rotations can be completed. Monitor plastic temperature using the pocket thermometer. White plastic should never exceed >200c/Yellow > 180c. Monitor heat transfer oil as it should never exceed 250c.

4. Job site. Position cooker truck in safe area; maintain correct plastic temperature and levels in melting tank. Move cooker as required on the job-site or as required by the foreman. Ensure deck is kept free of debris at all times.

5. Always use a Spotter when moving through an intersection on a job site.

6. Shut Down. Open melting tank lid to start releasing heat. Turn off burners and propane supply. Fill melting tank half full with plastic, stop agitator when heating oil has declined to 120-150 degrees C. Stop pup engine and finish filling the melting tank. Clean excess

plastic from deck. Secure pallets, close lids. On the way back to shop or hotel, fill the propane tank. Restock the truck as required or instructed by the Foreman.

7. Overnight. Repeat start up procedure. Set heating oil temperature to 120-150 degrees C Ensure thermocouplers are functioning properly. Set pressure regulator to 1 Bar. Clean and store all combustibles and ensure unit is parked in a safe area.

8. Starting the cooker burners. Open the propane bottle, the shut off switch on the side control box and turn the regulator to 1 bar of pressure. Introduce flame in front of the torch while pressing pilot light button and holding it for approximately 5 seconds or until torch stays lite when released. Now turn up regulator and thermostat to required pressure. If the is ever any unburnt propane released into the heating tube, turn off the propane and let stand for 5 minutes before attempting to ignite any propane again.

9. Always park in a safe area, away from traffic when possible.

4.1.4 - HOFMANN APPLICATORS H-18/26

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Fire, Spill, Leaks)
• Injuries to workers and public (Flying debris, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Kevlar Sleeves, Alberta #2 First Aid Kit, Fire Extinguisher, Fire Blanket, Equipment checklist, Kevlar Sleeves/Heat Resistant Gloves, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the H-18/H- 26 Applicator, be Propane Certified and have the correct class of driver license.

- A Hazard Assessment and emergency response plan must be completed/share before work starts.

Recommended Procedure and Precautions to offset hazards;

1. Pre job site. Complete Equipment Checklist. Check all fluids, tension of belts and airline condition. Check all lights & beacons.
2. Loading onto the trailer. Always have a spotter. Center machine at the ramps and secure the front hook points in the up position using tarp strap. Slowly drive the machine up the ramps using a spotter on both sides to lift the shoes if there is a possibility that they may drag on the trailer. Park the machine centered between the trailer hook points.
   (* No sudden jerks, always return to neutral before changing direction of travel. Sudden directional changes put severe load on drive pumps & chains).

3. Lighting burners. Connect and open propane bottle. Turn propane control box switch to position #1, introduce flame in front of torch while pressing and holding the pilot switch to supply propane, torch should now be lite. Now turn control box switch to position #2 releasing the pilot lite. Set "Thermo Oil" thermostat to 225c and "Material" thermostat to 200c.
4. Job Site. Unload and park machine in safe area. Install propane bottle(s), light burners, clean shoe with scraper and test bead gun. Close shoe and fill thermo pot with thermo plastic from Breining cooker. Always do a practice run to ensure everything lines up properly prior to applying actual line.
   (* Always wear Kevlar sleeves when working around open flame or hot thermo plastic.)
5. Shut down. Try to estimate last batch of plastic as close as possible. Close propane bottle(s), valves and remove bottle(s) from machine and secure in 1-ton. Open lid to pot, drain excess plastic into thermo box and add to Breining cooker. If weather is questionable cover machine with tarp. Load machine onto trailer and secure.

6. Always use a Spotter when moving through intersection on a job site. Park in a safe area, away from traffic when possible.

4.1.5 - H-92

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris)
• Injuries to workers and public (Flying debris, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the H-92 Line Remover and have a Forklift Certificate if needed.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Job Site: Check oil and air filter **(blow out or replace if needed)** prior to greasing machine. Disconnect spark plug and turn off fuel, use helper to tip and hold machine while greasing the grind heads with high temp grease only. After greasing grind heads clean air filter and top up fuel.

2. Loading/unloading H-92. Use forklift or power tailgate to load or unload whenever possible. If they are not available use four workers. Secure with tie down straps.

3. Job site (start-up). Ensure area around H-92 is clear of debris and the grind head is fully raised. Start engine using half throttle, let engine warm up for 1 minute.

4. Job site (removing lines). Pull throttle to full on position. Adjust side guards and lower grind head slowly until it skims the road. Dropping or adjusting the grind head too low will damage machine.

5. Always use a spotter when moving through an intersection on a job site.

** STAY AWARE OF YOUR SURROUNDINGS**

6. Refueling during jobsite operations: Shut off machine, raise grind head and move to safe location. Check oil level and top up as required. Clean the air filter and then have a worker assist in tipping and then holding the H-92 in place. Grease grind heads with high temp grease, rotating

grind head as they are being greased. (Always wear gloves while greasing). Lower H-92, top up fuel and proceed with removal of lines. Repeat as required.

7. Always park equipment in a safe area, away from traffic when possible.

DO NOT STOP H-92 WHEN GRIND HEADS ARE LOWERED AS THIS WILL DAMAGE THE ROAD SURFACE AND THE GRIND HEADS

4.1.6 - PLASTOMARKER COLD PLASTIC APPLICATOR

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Dust, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Plastomarker Applicator, be WHMIS certified and have the correct class of driver license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Job Site: Check to ensure Plastomarker is complete. Visually check shoes, lever, pointer and wheels.
2. Job Site: Ensure job site is ready for line application and all line work procedures are being followed. Do a dry run to make sure the Plasomarker is working properly and is following the pre mark to spec. Open cold plastic pail with lid opener, mix per mixing instructions in a well ventilated area. Apply cold plastic material to road. *Refer to mixing instruction in cube van
3. Shut Down: Clean all equipment, load and secure all equipment, full and empty pails into cube van. Ensure work area is clean.
4. Always use a Spotter when moving through an intersection on a job site.
5. Always park equipment in a safe area, away from traffic when possible.

4.1.7 - TOWING EQUIPMENT

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Equipment checklist, Refer to Hazard Assessment, TAS and ERP.

Training Required;

Employees must be deemed competent prior to Towing Equipment and have the required license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedures and Precautions to Offset Hazards

1. Inspect the sling to make sure it meets the required standards (meant for pulling only).
2. Inspect sling for weak, stretched webbing, and cracks within the hooks.
3. Hook sling onto disabled equipment on the lowest point possible.
4. Place hook in a manner that it cannot slip out when tightening.
5. Back mobile piece of equipment (that is to do the pulling) close to the disabled one so the sling can be connected.
6. Place sling on the pulling point of the mobile equipment.
7. Have a spotter on the ground to give directions and aid if moving through intersections is necessary during hook up.
8. When sling is tight, look to see if everyone is out of harm's way.
9. When safe to do so apply power (slowly) to the mobile machine.
10. Never jerk the sling (it will most likely snap)
11. Once you have pulled the disabled machine out, create some slack in the sling.
12. Have a spotter un-hook both ends of the sling.
13. Always park vehicles/equipment in a safe area, away from traffic when possible.

NOTE:

Never tow in reverse as this will damage the towing unit

4.1.8 - H-26 COLD PLASTIC APPLICATOR

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Spills, Leaks)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Equipment checklist, Spill Kit, Eyewash Station, Spill/Drip Tray, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the H-26, be WHMIS Certified and have the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. **Pre Job Site**: Conduct pre start inspection, check fuel, oil, hydraulic and radiator levels. Look for worn out parts. Check for cracks in the frame. Check all lights horn, backup alarm and tires. Inspect all air and chemical lines for leaks or wear. Ensure the parking brake functions properly.

2. **Job Site**: Ensure work area is set up properly with lane coned off and the 1-ton being utilized as a blocker/arrow board functioning. Before the driver uses the machine, they must push the parking brake button off.

   Always use a Spotter when moving through intersections on a job site.

   If the operator needs to increase or reduce the speed of the machine, they must turn on the parking brake and then set the dial to the speed desired. This is the only way to change the speed setting.
   Utilizing the Extruder Head. Check the flushing agent level and fill if required. Place the proper size die for size of line required by removing the four nuts located on the bottom of the extruder head to start. Now remove the die plate that will expose two additional nuts that also need to be removed. The remainder of the die body should be loose enough to replace the die with the desired sized one.

After the desired die size is ready you can open the main material valves located at the top, front and rear of the extruder head. Priming can now commence (do not use BPO) by opening piston material valves using the computer. Open the die shuttle allowing material to flow into the extruder head. Once the extruder head has been primed the operator can prime the BPO into the mixing chamber by activating the foot petal which allows BPO to flow.

Lower the head onto the ground and commence operations. **Do not** prime the extruder head and then leave it longer than 30 seconds or the material will harden.* The extruder must be flushed once finished or when not to be in use sooner than 30 seconds.

3. **Shut down**: To do the secondary flush, place a bucket under the extruder head. Close valves to prevent flushing agent from back filling into material chambers, push flush button on computer allowing flushing agent to flow in and rinse out the mixing chamber.

   To do a main flush, close main material lines and open flush valves located at the front and back of the extruder head. Engage the hydraulic motor to pump excess material and flushing agent throughout the entire extruder head. Flush for at least 10-14 seconds to ensure a good flush. Then close flushing agent valves and all remaining valves.

   Drain the humidity build up from the air tank. The valve is located at the bottom of the rear end of the machine. Shut off pressure on all tanks and pin extruder arm into place for travel on the trailer.

   Always park equipment in a safe area away from traffic when possible.

4.1.9 - RIDE ON POWER SWEEPER

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris)
• Injuries to workers and public (Flying debris, Dust, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Equipment checklist, Eye Wash Station, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Ride On Sweeper and have the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Job Site: Conduct pre start inspection, check fuel, oil, hydraulic and radiator levels. Ensure all filters are clean and free of debris. Check; lights, beacon functions, main broom and side broom (adjust height as required). Load unit onto trailer using a spotter.

2. Replace main or side broom if required. Ensure main broom forms a V when looking from the front or it will not function properly.

3. Job Site: Ensure work area is set up properly with lane being coned off and the 1-ton being utilized as a blocker/arrow board functioning. Double check main broom height then commence sweeping work area as required. * You will be traveling with & against traffic while in the closed lane, always stay aware of all traffic and pedestrian movement, utilize flaggers when they are required.

4. Shut Down: Empty contents of hopper into 1-ton, use blower pack to blow dust and debris from filter, radiator and shaker filters. Load unit onto trailer. * Always clean filters in a safe area.

<u>*Always use safety arm when working under the raised hopper*</u>

5. Always use a spotter when moving through an intersection on a job site.

6. Always park equipment in a safe area, away from traffic when possible.

4.1.10 - H-95-1 ROAD DRYER

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris)
• Injuries to workers and public (Flying debris, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Kevlar Sleeves/Heat Resistant Gloves, Alberta #2 First Aid Kit, Burn Kit, Fire Extinguisher, Equipment checklist, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Road Dryer and be Propane certified.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Job Site: Conduct pre check, engine oil and fuel levels. Visually check on propane hookup and electrical system. Ensure burner head holes are not clogged and there is power to the fire box. Grease wheels as required with high temp grease.
2. Job Site: Ensure you are in a safe area. Load propane bottle onto unit (adjust regulator to 2-bars) Adjust burner head to proper position. Start engine, turn throttle to full after one minute warm up period. Ignite burner and begin drying surface.
    - Caution must be taken as road surface can be burned; never stop in one area with the burner engaged
3. Shut Down: Finish drying surface. Turn heating system off. Turn throttle to idle position for 3-5 minutes, allowing firebox and burner head to cool. Remove propane bottle. Load machine after firebox and burner have cooled down.
4. Always use a spotter when moving through an intersection on a job site.
5. Always park equipment in a safe area, away from traffic when possible.

4.1.11 - LOADING AND UNLOADING TRAILERS

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Shifting Equipment. Lose loads)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Equipment checklist, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to Loading/Unloading Trailers and have a Forklift /TDG Certificate if needed as well as the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Job Site: Conduct a pre-trip inspection, checking tires, lights, brake breakaway connection, safety chains, pintle hitch, chains and ratchet boomer condition. Schedule 1 as per NSC.

2. Loading the trailer: Always have a spotter. Ensure trailer is properly hooked up and is parked on a solid even surface. Check trailer load capacity prior to loading.

* Tilt Deck: Remove spring & latch pin and lower rear of trailer to the ground. Load equipment, reinstall spring & latch pins. Secure Load.

* Beaver tail: Slowly lower ramps, load, position equipment and secure it. Return ramps to raised position and pin. Use minimum of two people to raise ramps into position.

* Covered Trailer: Open doors, load materials and/or equipment. If ramps are required position ramps, load and sure equipment. Close and latch all doors. Placard if required by TDG regulations

3. Unloading the trailer: Always have a spotter. Ensure trailer is parked on solid even ground with ample room to off load the equipment or material in a safe area. Remove ratchet boomers and Chains.

4. after unloading equipment, ramps are to be place in the upright position while trailer is attached or detached from truck.

* Tilt Deck: Always have a spotter. With operator on the equipment, remove spring & latch pins, have operator move equipment slowly to the rear of the trailer enabling it to tilt down, off load unit. Reposition trailer deck install spring & latch pins. Place ratchet boomers and chains in trailer tool box.

* Beaver Tail: Slowly lower ramps and unload equipment from trailer. Reposition ramps and pin back in place. Place ratchet boomers and chains in the neck of the trailer. Use minimum of two people when lowering ramps.

* Covered Trailer: Open doors to trailer, install ramps if required remove ratchet straps or ratchet boomers and chains. Unloading material or equipment. Return Ramps into trailer, close and lock doors,

**Remove Placards as per TDG regulations

4. Always use a spotter when moving through an intersection on a job site as well as loading and unloading.

5. Always park trailers in a safe area, away from traffic when possible.

4.1.12 - JOBSITE SET UP

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest/Flag Suit (Class 2-3), STOP/SLOW Paddle, Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to Jobsite set up. If a flagger is used, they must be Certified. Employees must have the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*
- **Loading and Unloading of barricades**

  Barricade made from wood or metals can weight over 50lbs and require two people to be loaded and offloaded from vehicles. When loading or offloading good communication is key! Employees are to grab barricades from opposite sides and lift them off the truck. No one should be handing them down from inside the deck/box of the truck as this can create an awkward position resulting in loss of balance and strained on the muscles.

Recommended Procedure and Precautions to offset hazards;

1. Signing in town: The foreman will give instructions on where to place the signs. Commonly there is to be an Obstruction Ahead followed by a Men Working sign prior to the start of the jobsite. Both sides of the road if the site is more than 2 lanes. Roll up style signs are most commonly used.

2. Signage on Highways: Metal signs are to be used for highway jobs. The foreman will give instructions on what signs are needed and placement of them.

* When placing or picking up signs, ensure warning lights are on and make use of the arrow board to help guide & notify drivers. Stay aware of traffic at all times, looking in the mirror prior to opening the door to insure it is clear to exit the vehicle. Use of two workers is always best. ALWAYS USE A Spotter when moving through an intersection on a job site.

3. Detour Set Up: When there is a break in traffic, pull blocker truck into desired lane. Check sight lines of the traffic approaching from behind, apply brake and exit safely. When reaching the rear of the truck, check arrow board to ensure its working and is set on correct setting. Now

set up a "TAPER" (an angled set of traffic cones in the direction you need traffic to move) a safe distance behind the truck. The distance from the blocker truck and length of the taper, will be determined by the posted speed limit. Always use a "Buffer Zone" in the work zone and keep it clear of workers, vehicles, equipment and materials.

If taking two lanes, always set second taper with enough distance from the first to allow traffic to merge or transition safely into the remaining lanes of traffic. As the work zone extends, use cones to keep traffic from entering the taken lanes. Always take sight lines into account when placing signs or setting up the blocker truck. Take a moment to observe traffic to ensure sign placement and taper has been set up properly, ensuring the safety of the workers, drivers and/or pedestrians.

4. Terminating the work zone: Pick up cones starting with the furthest cones away from the blocker truck, working your way towards the blocker truck while facing the traffic. When ever possible, utilize two workers for this task. To terminate the work zone, place a small tapper at the end of the work zone, returning traffic to it normal flow.

   4(b). Switching detour: When switching over the detour pick up the cones towards traffic keeping your head up the entire time. A flagger should be in place for this. It’s encouraged to drive the truck around the site and approach the new detour with traffic as opposed to stopping traffic and backing up vehicle into the next lane.

Typical Traffic Control Zones : Advance Warning Area , Transition Area, Buffer Zone, Work Area and Termination Area.

5. Always park any vehicles or equipment in a safe area, away from traffic when possible. Ensure there are no catch basins or manhole near units when parked, if unavoidable utilize the “snake” socks to block of any areas that have the potential for a spill to reach a water way.

4.1.13 - PRE MARKING

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris)
• Injuries to workers and public (Tangled Chain, Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to Pre-Marking and have the correct License. If a Flagger is used they must be certified.

- ❖ *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Set Up: Sign up job site using required signs and complete sign logs. Some job site locations may require the need to take control of travel lane. Make use of a blocker truck and cones in this case.
2. Dotting: Use a blocker truck and flagger to assist in traffic control while dotting. Two employees are to use a tape measure and spray can to apply "dots" as per the prints for the job or foreman's instructions.
    - **Always Face Traffic**
3. Whipping the chain: Take desired travel lane with blocker truck on both ends of the chain. Remove chain from spool within the closed lane. One worker stands on the end of the chain that will start the pre marking process as per the prints or instruction from the foreman. A second worker slowly whips the chain using the dots as a guide to maintain desired lane widths and best traffic flow. Use a flagger to keep motorist from entering closed lane. When desired effect is achieved from the whipping of the chain, a third worker is to paint over the chain using a line laser or spray can to produce the pre mark itself. After completing the whip and spraying of pre mark chain, move chain and blocker truck(s) forward. Align chain on existing pre mark and repeat whipping process.
4. Completion of Pre Marking: Complete pre marking process of entire job site. When finished, re-spool chain and remove workers & vehicles from job site.
5. Always use a spotter when moving through an intersection on a job site.
6. Always park in a safe area, away from traffic when possible.

4.1.14 - LINE LASER

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris, Spills/Drips, Over Spray)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Spill Kit, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Line Laser. If a flagger is used they must be certified.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Start Inspection: Check all fluid levels and visually check hoses, fittings, cables and tires. Ensure tips are clean and positioned properly.
2. Always use a Spotter when moving through an intersection on a job site.
3. Preparing for Painting: Place pail of paint in holding ring on line laser and place suction hose into pail. Make sure pump switch is in the off position. Start engine and set idle to desired position.
4. Priming Pump & Purging Lines: Always remove tip and lower engine RPM prior to purging. Purge into pail until paint has a steady flow. (Hold gun assembly near side of pail to prevent splashing) Install tip when process completed.
5. Painting: Height of gun and angle of the tip will affect the width of the line. Align tip of gun on line laser with Premark chain and start spraying the chain, walking the machine the entire length of the chain or stopping when instructed by the foreman.
6. Flushing the System: Remove tip, turn the pump off and turn the pressure all the way down. Remove suction tube from pail and replace paint pail of solvent or water. Place suction tube into pail, start engine, maintaining a low RPM and re-engage pump. Spray remaining paint into a pail until water or solvent appears. Circulate pump, turn off pump and engine. Replace tip and leave it in the off or closed position. Let unit cool down then load and secure it.
7. Store unit and material at room temperatures to avoid over heating or freezing of it.
8. Always park in a safe area, away from traffic when possible.

4.1.15 - TRANTEX THERMO APPLICATOR

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Spills, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Thermo Applicator. *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: inspect pot, hoses, lines, wheels, burners and propane regulator.
2. Loading/Unloading Applicator: Utilize power tailgates when ever available. Otherwise use 4 workers; 2 on the ground, 2 in the box of the truck. Unit should be free of propane bottle, the pot and shoe. Never drop the shoe on the carbide plates.
3. Installing/Changing Shoes: Ensure propane supply valve is in the closed position. Carefully set shoe on the ground. If required, remove propane lines, loosen bolt and slide shoe away from applicator. (If shoe was being used just prior to removal, it will be extremely hot. It should always be handled with care and never stored closed to flammable liquids.)
4. Lighting Applicator: After installing a propane bottle, ensure all valves are in the closed position, then open the valve on the propane bottle. Check for any leaks, set thermostat to low and light pilot burner. Once warm set thermostat to desired temperature.
5. Lighting Shoe: Introduce blame to the front of burner and slowly open propane supply valve.
6. Filling Applicator: Ensure applicator drain is in the closed position, maneuver applicator under cooker spout. Stand to the side and slowly open material door on cooker, filling applicator as required within 5-7 cm of liquid. As material is being used up during the application process the temperature must be lowered as the material level drops to avoid burning the remaining material.
7. Shut Down: Maneuver applicator to safe location. Drain any excess material from pot and shoe into a silicone box. Scrape down excessive material in the pot as best as possible. Remove propane lines from shoe, remove pot and shoe from applicator and store in cube van once cooled down. Load and secure applicator into cube van or truck, ensure it has cooled enough.

8. Always use a spotter when moving through an intersection on a job site or while installing next to traffic.
9. Always park in a safe area, away from traffic when possible.

4.1.16 - SIT-DOWN FORKLIFT

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Falling objects, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment and ERP.

Training Required;

- Employees must be Forklift Certificate. Have TDG Certification as required and Propane Certificate. *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Check all fluid levels, lights, tires, forks, carriage, horn, back up alarm, data plate, warning decal, all gauges and levers. Complete Equipment Checklist.

2. Using the forklift: Never use a malfunctioning or a lift truck in need of repair. Report it immediately, tag it out of service and get it repaired. Always operate the forklift in a smooth and steady manner. Keep the forks 6-8 inches off the ground at all times when moving. Be familiar with all controls and take your time whenever using it. (ONLY trained workers with forklift certificates are allowed to operate them). *Use spotters when removing or placing pallets on racking or tight areas. Be sure to warn others before moving the forklift.

3. Shut Down: Find a safe location, lower forks completely to the ground, set park brake, turn off propane supply valve and let engine stall out. Remove key and chock if necessary. Never park near emergency exits.

4.1.17 - POWER TAILGATE

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Spills, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating a Power Tailgate.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Is to be completed with unit daily per/post inspection.
2. Using Power tailgate: Ensure the truck is in park and park brake is engaged. Be aware of pinch points when activation the power tailgate. Ensure items that are to be lifted or lowered do not exceed manufactured specifications prior to use. Try to use power tailgate when on an even surface to prevent binding. (Always ensure truck is in safe area prior to using the power tailgate).
3. Finished with the power tailgate: Return power tailgate to original position, ensure the ears settle into the drop-in plates. Push in the kill switch in the cab. (NSC load securement requirements must be maintained regarding the load).
4. Always use a spotter when moving through an intersection on a job site.
5. Always park in a safe area, away from traffic when possible.

4.1.18 - LOADING/UNLOADING EQUIPMENT AND MATERIAL

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Loads Shifting)
• Injuries to workers and public (Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. OSCAM when required.

Training Required;

Employees must be deemed competent prior to loading or unloading equipment/materials. Have a Forklift Certificate and/or the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: All equipment, material, pallets and totes must be checked for damage or leaking before loading or unloading. If leaking or damaged, inform Foreman for instructions.
2. Loading Equipment or Material: All equipment needs to be in a safe location. Ensure any ramps are in position (remove ramp from it's storage area using two workers to put it into place. Secure it with the chains on it to prevent movement during use), doors are open fully on trailers or trucks and the area where the equipment or material is to be loaded is free of workers, tools and debris. Carefully load equipment and or materials into desired position. Secure the load as per the NSC regulations. Ask for assistance for equipment you are unfamiliar with.
3. Unloading Equipment or Materials: All equipment needs to be in a safe location. Remove all securement devices, position any ramps (remove ramp from it's storage area using two workers to put it into place. Secure it with the chains on it to prevent movement during use), open doors as required on trucks or trailers. Ensure the area where the equipment or material is to be unloaded is free of any workers, equipment, vehicles, tools or debris. Carefully unload equipment or materials. Get assistance from other workers as needed or use a forklift for the materials. (You must be certified to use a forklift) If you are unfamiliar with a certain piece of equipment, ask the operator or someone else who is experienced with that piece of equipment to unload it for you.
4. Finish: Always use a spotter to move through an intersection on a job site. Ensure all equipment used is parked in a safe area, away from traffic if possible. Any pins that were removed have been replaced, ramps are returned to their travel position and locked in place using two workers, and doors are closed and locked. All ratchet boomers, chain,

ratchet straps, tonnage or load protectors have been stored in a designated or safe location.

4.1.19 - COLD MILL GRINDERS

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Spills, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, ,Dust mask or respiratory protection if required. Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves, Eye Wash Station, Refer to Hazard Assessment, TAS and ERP. OSCAM when required.

Training Required;

Employees must be deemed competent prior to operating Cold Mill Grinders and have the correct license. Mask fit certification is required.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Check all fluid levels, tires, lights, control, air filters and grease grinding head and all accessible greasing points. While using a spotter load grinder onto trailer and secure it as per NSC regulations.
2. Job Site: Unload unit from trailer and move it to a safe area. Install computer if required and position pointers. Test all functions prior to doing a test run. Install correct width of grinding teeth on drum. Ensure cones and blocker truck is in place before entering the lane. Now do a practice run, ensuring everything lines up and is functioning properly. Ensure all other workers are prepared to go. Start the grinding operation. Grind depths need to be checked constantly to make sure the required depth is being maintained. Stay aware of lane line lengths and ensure the pre mark is being followed as close as possible.
3. Shut Down: Prepare unit for loading, removing the computer (if required). Securing the pointer and depending on the location use the blower pack to remove dust and debris from the air filters. Filters must be kept clean for the care and maintenance of the grinders. Load and secure grinder as per the NSC regulations
4. Always use a spotter when moving through an intersection on a job site and while loading and unloading.
5. Always park in a safe area, away from traffic if possible.

4.1.20 - FORK MOUNTED MANLIFT PLATFORM

Potential Health or Safety Concerns;

• Damage to Equipment (Tipping, Overhead Objects)
• Injuries to workers and public (Falling Objects, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Body Harness and Lanyard, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent prior to operating the Manlift and have a Forklift Certificate. If working from a height three meters or higher you will need a "Working at Heights" certificate as well as a "Fall Protection" certificate.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Inspect; cage, harness, lanyard and forklift. Adjust forks to correct width. Position forks under platform and secure safety chains. (Only certified Forklift Operators can use forklift)
2. Using the Platforms: Carefully move platform into position with the assistance of a spotter. Worker can now enter platform cage put body harness on and attach lanyard. (Ensure lanyard is secured to cage) Slowly raise worker to required height. (Never reposition platform when it is in the raised position with or without a worker in it and always remain in the operators seat while a worker is in the manlift).
3. When finished with manlift: Slowly lower worker and when manlift is fully lowered they may detach lanyard and exit the manlift. Move manlift to designated storage area, then park forklift in a safe location or designated spot.

4.1.21 - USE OF SAND BLASTER

Potential Health or Safety Concerns;

• Damage to Equipment (Excessive wear on the unit)
• Injuries to workers and public (Flying debris, Pinch Points)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment and ERP, Eye Wash Station.

Training Required;

Employees must be deemed competent prior to operating Sand Blaster.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Visually check air hose, activation pedal, viewing glass, glove inserts, filtering system, level of glass/sand and ensure all doors are in the closed position.
2. Using unit: Start the unit, listening for the motor to engage and for the internal light to come on. Take hold of the nozzle, point it at the item to be blasted then engage foot pedal.
3. Shut down: When blasting is completed turn unit off. Wait 2 minutes, letting all air borne particles settle. Open the door, remove blasted object. Clean any sand that may have collected on or around the machine. Unplug unit.

4.1.22 - SKID RESISTANT MARKING

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Spills, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Eye Wash Station, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to installing Skid Resistant Markings. WHIMIS certificate.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

"A" one step skid resistant (used for most colouring applications)

1. Pre Check: Complete inspection of hand tools, cement (material) mixer, extension cords and generator. Set depths of hand form and/or gauge rake (always determined by the foreman). Load equipment and materials.
2. Job site: Use jobsite set up procedure to set up work area. Make sure material preparation is conducted in a well ventilated area. Keep all flammables away from the generator. Add plastic and Bauxite into the mixer (ratios will be determined by job spec's), mix until rock is evenly mixed throughout the plastic. Stop the mixer and pour plastic into pails for application process.
3. Application: Add BPO and mix into the rock and plastic mixture using the drill with attached mixing bit. Pour material onto surface and spread evenly using gauge rake and/or hand form. Use roller to give the SRM a uniform texture. Broadcast glass beads on top if required.
4. Shut down: Clean all equipment. Pour all remaining plastic from mixer into pails and secure lids onto them. Use solvent to clean out the inside of the mixer. Properly secure all equipment and materials back into vehicle(s). Make sure all garbage is cleaned up and disposed of properly.

"B" two step skid resistant (used for high friction surfacing and some colouring applications).

1. Pre check: Complete inspections of all required equipment (sweeper, drill, extension cords, etc.). Load equipment and materials.
2. Job site: Use job site set up procedure to set up work area. Open pails of plastic and be sure to mix them in a well-ventilated area.
3. Application: Add BPO to material in the pail and mix thoroughly with drill and mixing bit. Pour plastic onto surface and spread evenly using gauge rake and/or hand form. Coat plastic with Bauxite quickly before plastic begins to harden. When plastic hardens, sweep up all excess rock. Next, add BPO to top coat material, mixing it thoroughly with the drill and mixing bit. Once mixed, spread topcoat over first application using rollers. Broadcast glass beads on top if required.
4. Clean all equipment thoroughly. Then load and secure all equipment and material onto vehicles. Be sure all garbage is removed from site and disposed of in a responsible fashion.

4.1.23 - Vehicle Paint Claim Procedures

Occasionally the public will drive over freshly painted lines that are not dry and may splatter paint on their vehicle.

Crew Procedure:

When such accidents occur and they are witnessed by a member of the paint or road marking crew, the full details surrounding the incident must be recorded on a near miss Report. These details include.

Exact Location, Adjacent Roadways (hills, curves, and flat section), Sight distance, locations of warning signs, type of line being painted, make and license number of vehicle involved.

This report is then handed off to the foreman on sight.

Foreman Procedure:

In some cases the driver of the damaged vehicle will stop immediately and demand that the vehicle be cleaned or repaired. The Paint foreman is to handle these situations in the following manner:

1. Treat the public in a respectful manner
2. Speak calmly and politely
3. Do Not admit to any liability or responsibility for cleaning of vehicle.
4. Do Not attempt to clean vehicle
5. Listen carefully and record paint condition and the fact surrounding incident on a Near Miss Report.
6. Advise the vehicle driver that the fresh paint should be removed as soon as possible.
7. Suggest they contact a vehicle detail shop
8. Suggest they do recommended procedure from paint supplier as stated in 'Appendix 1' attached to this procedure.
9. Inform the driver that Lafrentz will not accept any responsibility for any removal decisions made by them.
10. Advise they contact the office with any further questions
11. Forward information to Paint / Durables Superintendent.

Office Procedure:

Throughout the year we will receive complaints concerning paint splattered on vehicle.

1. Remember vehicle owner shall be treated in a respectful and courteous manner
2. Record detailed information on a complaint form.
3. Vehicle driver shall be informed that Lafrentz operates under procedures set forth by Alberta transportation & utilities with respect to warning signs, blocker truck operation and paint truck operations

4. Lafrentz exceeds their criteria in most cases.
5. The incident shall be investigated, however at this point Lafrentz does not admit any responsibility
6. Advise vehicle driver to contact vehicle detailing shop while paint is still fresh or if they choose to try cleaning themselves we can forward them recommended procedure from paint supplier (as shown in appendix 1 attached to procedure).
7. Inform vehicle owner that Lafrentz will not accept responsibility for any removal decisions made by the vehicle owner.
8. Ensure that any emails sent to complaint are saved in an outlook directory within the senders email for future reference.
9. Update foreman/Super of any further information or correspondence with complaint.

APPENDIX 1

PROCEDURE FOR REMOVING PAINT FROM CARS

As soon as possible after getting paint from road stripes on vehicle, wash the vehicle at a pressure car wash. This will loosen and remove most of the paint unless it has dried for more than a day.

If the car wash does not remove the paint, allow the water to dry-off the vehicle. Spray the paint residue with WD-40 and allow the WD-40 to stay on the area for 1-2 hours and then rewash the vehicle. The WD-40 will soften the traffic paint without hurting the vehicle finish. If there is a heavy concentration, repeat the procedure.

For heavy accumulations or paint that has dried for several days, apply a liberal coating of Vaseline petroleum jelly to the dried traffic paint and allow staying on overnight. Take the vehicle to a pressure car wash and wash. This should remove most of the traffic paint. If not, repeat the procedure.

DO NOT SCRUB THE FINISH WITH SOLVENT OR SCOURING CLEANSER!!!!!! THIS WILL DAMAGE THE FINISH.

After cleaning the paint away, apply a good Wax to the vehicle's finish. Wax should remove any lasting signs of the traffic paint.

Wheel wells are very difficult to remove the paint from since they are normally a flat finish. Apply a liberal coating of Vaseline to the area and leave for several days and then pressure wash. Applying an alcohol such as Solox or Rubbing Alcohol to the area in the wheel well will help to soften any residue left after the Vaseline. Again DO NOT SCRUB!! Just apply with a very wet rag or sponge.

4.1.24 - RESTRICTED SPACE

Potential Health or Safety Concerns;

• Damage to Equipment (Depending on activities)
• Injuries to workers and public (Flying debris, Spills, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves if required, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent prior to entering a restricted space.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

Whenever a worker is required to enter a restricted space, which in the case of Lafrentz Road Marking, consist of the thermo plastic melters mounted on trucks or in the manufacturing facility, the following procedures must be followed.

1. A Hazard Assessment must be conducted that covers the work to be done, entering and exiting the space safely and emergency evacuation of the space.
2. All power sources (electrical or hydraulic) must be locked out or removed. Refer to Work Safe Practices # 47, 48 in this manual.
3. Always follow proper lifting techniques and practices when lifting is necessary.
4. Signs must be prominently posted to advise all unauthorized personnel to stay clear of the space.
5. A worker that stands watch for the worker in the restricted space must be present at all times.
6. All required P.P.E must be available and utilized by the worker in the restricted space as well as being available for the worker who is on watch.
7. Fire extinguishers must be present if any type of "hot work" is to take place and all hot work procedures must be adhered to, including permits.
8. When work is completed and all equipment/tools are removed from the space, all signs are to be removed.

4.1.25 - USE OF CUBE VAN LOADING RAMPS

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Shifting load, Misalignment of ramp)
• Injuries to workers and public (Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. OSCAM when required.

Training Required;

Employees must be deemed competent prior to using the Loading Ramps.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Use a minimum of two workers when loading or unloading the ramps. Make sure the ramps are clear of any obstructions before commencing with any loading or unloading operations. Chain or Pin ramps to the welded handles on the outside of the Hino cube van rear door to ensure ramps are secure.
2. Always park in a safe area, away from traffic when possible.

4.1.26 - SYSTEM 400 SPRAY PLASTIC

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Flying debris, Spills, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Spill Kit, Eye Wash Station, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to using System 400 Spray Plastic and have a WHIMIS certificate.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

Pre- job-site

- check fluid levels, gas, hydraulic and solvent
- check air lines and material lines
- check packing's and throat seal level
- check that all valves on gun are clean and operating properly
- check solvent tank level and inspect all lines and fittings
- ensure you have all PPE, product A & B, solvent (acetone), BPO, 2 mixing bits (1 for each side)

Loading Material

- pre-mix A and B material thoroughly with separate mixing bits and clean bits with separate cleaning containers
- add minimum 800grams of BPO (Benox C-50) which is the hardener to B component and mix with drill (BPO added to B component ONLY) and mix for 5 minutes
- VERY IMPORTANT that part "A" & "B" do NOT come in contact with each other
- place A and B component pails in the proper holders
- put supply lines in pails and circulate each pump cylinder
- fill solvent tank if needed and secure lid

Tips

- Before spraying, open atomizing air and then the solvent valves to ensure they are working
- The amount of BPO can be adjusted for hot or cold temperatures. The material will harden more quickly when the temperature is high, and slower when it is cold. The BPO can be adjusted from a high of 1000 grams to a low of 800 grams. A good rule of thumb is 800 grams
- The material should be stored out of direct sunlight and on a very hot day it is a good idea to use a tarp to shade the spray unit
- Keep parts clean
- It is extremely important that no cross contamination of A and B materials or A and B solvent occurs
- If BPO has been added to the B material and is not used, write on the pail that BPO has been added and be sure to include the date. Secure with a lid and puncture a small hole in the lid so the material can breath.
- If you do not add the BPO to the B material, it will not harden when mixed with A component
- If you are not sure if a pail contains A or B component, remove a small amount of the material and add some BPO powder. If the material hardens it is A component and if it doesn't harden it is the B component
- If pumping is very slow, clean the screens

Procedure

- Before starting any equipment always check; fluid levels, gas, hydraulic and solvent
- Make sure you have the part A ready to put in the part A side of the system which is always RED
- Do not put any BPO in the part A material
- Make sure you have part B ready to put in the part B side of system which is always Blue
- Part B side of the system should always have a minimum of 800 grams of BPO mixed into it thoroughly. Mixing should take a good 5 minutes to properly introduce into product.
- IMPORTANT: Part A and Part B must not come into contact with one another.
- Always use separate mixing paddles for Part A and Part B
- When cleaning paddles or any components from Part A and Part B always have a separate cleaning containers for both sides.
- Any contaminated solvent could re-act with components if not cleaned properly
- All operators must fully understand the equipment and material before use.
- Always use a spotter to move through an intersection on a job site.
- Always park in a safe area, away from traffic if possible.

Refer to Manufactures instruction for operation of machinery.

4.2 - JOB PROCEDURES (PAINT)

4.2.1 - HOFMAN H-92

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris)
• Injuries to workers and public (Flying debris, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves, Refer to Hazard Assessment and ERP. TAS, OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the H-92 Line Remover and have a Forklift Certificate if needed.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Job Site: Check oil and **air filter (blow out or replace if needed)** prior to greasing machine. Disconnect spark plug, use helper to tip and hold machine while greasing the grind heads with high temp grease only. After greasing grind heads clean air filter and top up fuel.

2. Loading/unloading H-92. Use forklift or power tailgate to load or unload whenever possible. If they are not available use four workers. Secure with tie down straps.

3. Job site (start-up). Ensure area around H-92 is clear of debris and the grind head is fully raised. Start engine using half throttle, let engine warm up for 1 minute.

4. Job site (removing lines). Pull throttle to full on position. Adjust side guards and lower grind head slowly until it skims the road. Dropping or adjusting the grind head too low will damage machine. Always use a spotter when moving through an intersection.

** STAY AWARE OF YOUR SURROUNDINGS**

5. Refueling during jobsite operations: Shut off machine, raise grind head and move to safe location. Check oil level and top up as required. Clean the air filter and then have a worker assist in tipping and then holding the H-92 in place. Grease grind heads with high temp grease, rotating

grind head as they are being greased. (Always wear gloves while greasing). Lower H-92, top up fuel and proceed with removal of lines. Repeat as required.

6. Always use a spotter when moving through an intersection on a job site.

7. Always park equipment in a safe area, away from traffic when possible.

DO NOT STOP H-92 WHEN GRIND HEADS ARE LOWERED AS THIS WILL DAMAGE THE ROAD SURFACE AND THE GRIND HEADS

4.2.2 - FORK MOUNTED MANLIFT PLATFORM

Potential Health or Safety Concerns;

• Damage to Equipment (Tipping, Overhead Objects)
• Injuries to workers and public (Falling Objects, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Body Harness and Lanyard, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent prior to operating the Manlift and have a Forklift Certificate. Have valid WHMIS 2015 training.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

3. Pre Check: Inspect; cage, harness, lanyard and forklift. Adjust forks to correct width. Position forks under platform and secure safety chains. (Only certified Forklift Operators can use forklift)
4. Using the Platforms: Carefully move platform into position with the assistance of a spotter. Worker can now enter platform cage put body harness on and attach lanyard. (Ensure lanyard is secured to cage) Slowly raise worker to required height. (Never reposition platform when it is in the raised position with or without a worker in it and always remain in the Operators seat while a worker is in the manlift).
5. When finished with manlift: Slowly lower worker and when manlift is fully lowered they may detach lanyard and exit the manlift. Move manlift to designated storage area, then park forklift in a safe location or designated spot.

4.2.3 - CLARKE FORKLIFT

Potential Health or Safety Concerns;

• Damage to Equipment (Tipping, Overhead Objects)
• Injuries to workers and public (Falling Objects, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent and certified prior to operating the Forklift..

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Check engine oil, coolant levels and hydraulic oil. Visually inspect fuel lines propane lines and fitting. (Propane tanks are to be filled by trained personnel only) Complete the Equipment Checklist.

2. Start up: Open propane valve at tank. Position transmission in neutral, located on left side of the steering wheel. Apply park brake. Turn key to start position on dash. Raise forks from ground with 1st lever on right side of steering wheel. Press foot brake pedal on floorboard and release park brake. Position transmission in direction of travel require (Always look behind you before backing up). Remove foot from brake pedal and press accelerator pedal on far right side of floor board.

3. Jobsite: Approach pallet to be lifted slowly and cautiously lifting forks to desired height of pallet. Enter forks level into pallet by adjusting the tilt lever slowly until forks go all the way into pallet. Ensure forks do not protrude and damage material behind pallet to be lifted. Look behind you, position transmission in reverse if all clear and remove foot from brake pedal. Back-up slowly until pallet clears other pallets and being to lower forks slowly. Lower as close to the ground (6-8 inches) and tilt back.

Travel to desired location slowly and cautiously. Lift pallet to required height, adjust tilt and position pallet in center of others. Press foot brake and hold, lower pallet and adjust tilt until forks are free with in pallet. Place transmission in reverse, back-up slowly watching that the forks come out of pallet freely. Lower forks as close to ground as possible and continue procedures as required.

4. Shut down: place forklift in appropriate safe area. Place transmission in neutral lower forks to ground, apply park brake and turn key to OFF position. Close propane supply valve at tank.

4.2.4 - TOYOTA FORKLIFT

Potential Health or Safety Concerns;

• Damage to Equipment (Tipping, Overhead Objects)
• Injuries to workers and public (Falling Objects, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent and Certificated prior to operating the Forklift.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Check engine oil, coolant level, and hydraulic oil. Visually inspect propane/hydraulic lines and fittings.

2. Start Up: Open propane supply valve at tank. Position transmission in neutral, located on the steering column. Apply Park brake(under dash on left side). Turn key to start position, raise forks from ground with 1st lever on right side of steering wheel. Press foot brake and release park brake. Position transmission in direction of travel required. ALWAYS look behind before backing up. Remove foot from brake pedal and press accelerator pedal, located on the far right side on floor board.

3. Job Site: Approach pallet to be lifted, slowly and cautiously, lifting fork to desired height of pallet. Enter fork level into pallet by adjusting tilt with center lever on right side of steering wheel slowly, until the fork go all the way into pallet. Ensure forks do not protrude and damage material behind pallet to be lifted. Lift pallet slightly from pallet below. Look behind you position transmission in reverse if all clear and remove foot from brake pedal. Back-up slowly until pallet clears other pallets and begin to lower forks slowly. Lower as close to ground level as possible (6-8 inches).

Travel to desired location slowly and cautiously. Lift pallet to required height, adjust tilt and position pallet in center of other if stacking on top of one another with 3rd lever on right side of steering wheel (side shift lever). Press foot brake and hold, lower pallet and adjust tilt until forks are free with in pallet. Place transmission in reverse, back up slowly watching that the forks come out of pallet freely. Lower forks as close to ground as possible and continue procedures as required.

4. Shut down: Place forklift in appropriate safe area. Place transmission in neutral, lower forks to ground and apply park brake. Turn key to “OFF” position and close propane supply valve at tank.

4.2.5 - BLOCKER/MESSAGE BOARD TRUCK OPERATION

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Miscommunication)
• Injuries to workers and public (Rear end Accidents, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP.

Training Required;

Employees must be deemed competent prior to operating the Blocker Truck.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Check fluid levels, belts, tires, lights, horn, back up alarm and record on prorate card. Check safety warning systems including overhead beacons, 2-way radio, warning signs, slow moving vehicle emblem, flags and message board.

2. Two Lane undivided Highway: The Q.C/Blocker truck will (when possible) ride on the shoulder (3-meters or larger) or travel from approach to approach if not, maintaining a two km distance as well as a good sight line at all times. The message board will have a caution message or one to be determined by the Foreman. In the event of an approaching wide load or an emergency vehicle, it is the drivers' responsibility to inform the rest of the crew of these hazards to enable them to take evasive action as required.

3. Multi-Lane Divided Highway: (Right Lane) When painting the right lane the Q.C/Blocker truck travels on the right shoulder, maintaining a two km distance while displaying a left chevron pattern or one decided by the Foreman. (Left Lane) When painting the left lane the Q.C/Blocker truck travels on the left shoulder, maintaining a two km distance while displaying a right chevron or one decided by the Foreman. If the left shoulder is too narrow, the Q.C should maintain a distance of 50 to 400 meters in the traveling lane, depending on the sight lines and when possible should go from approach to approach, if distances allow.

4. General Duties of the Operator: Is initial warning to drivers and passes pertinent information onto other crew members/Foreman. Quality control of the painted lines, documents measurements, land marks, road length, intersection/junction locations as per Foreman's request. Report all findings to the Foreman. The Q.C operator is also to assist with the loading of the paint truck as well as message marking. The Foreman with advise him about what his duties are.

5. When practicable make use of a spotter when backing through an intersection on a job site.

6. Always park in a safe area, away from traffic when possible.

4.2.6 - LINE PAINTING

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Overspray)
• Injuries to workers and public (Pressurized lines, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. WHMIS and TDG as required.

Training Required;

Employees must be deemed competent prior to participating in Line Painting and have the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre-Check Compressor: Check all fluid levels including oil, coolant, and power steering. Check condition and tension of V-belt. Visually check tires, valves, wiring, hose and connections.

2. Compressor Start Up: Drain water separators, fill lubricators. Close service valves, push by-pass button, turn key to "ON" position. Push and hold oil by-pass button while pushing the starter button. Release by-pass button when pressure is over 20psi. Warm engine up and switch toggle to run.

3. Truck Start Up: Perform **Pre-trip**, observe gauges, oil pressure idle speed, coolant temperature, voltammeter, air pressure, and safety systems (lights, beacons, back up alarms, horn). Turn on overhead rotators, arrow board and rear warning signs. Place flags in holders. Turn on electrical power (master power switch, back power switch and computer switch in front cab).

4. Circulate paint: Turn on water pump switch on back of console to circulate the coolant through the heat exchangers. Open valve No. 1,4,5,6 close valves No. 2, 3. Open pump air supply valve. Activate video guidance system, monitor, etc. Prepare carriages for spraying. Unhook carriage, support chains and ensure paint and bead guns are ready to go. Spray assembly with fluid film. Pressurize bead tank. Open supply valve 'A', set regulator, observe gauge. Open circulating valve, engage pump, use regulator to keep pressure at 60psi. Test fire all guns into a pail.

5. Checking Paint and bead guns: Pressurized system by closing the circulating valve. Place bucket under the guns, each gun may be manually operated by triggering its corresponding solenoid valve. Depress the orange button on the top to achieve this.

6. Painting Process: Check communication with all other trucks. Pressurize system to operating levels. Attenuator driver will get into position and then advise paint truck driver of a good time to obtain the required painting position. Paint truck driver gets his line, the carriage(s) are lowered and wheeled into painting position(s) and painting begins. (it is crucial to observe line quality and traffic flow and to make required adjustments in order to minimize deficiencies and/or danger as soon as possible.) The QC/blocker driver will communicate line width and quality. Any adjustments are to be made in a safe location off the roadway.

**Upon completion of no less then 5 km of painted roadway, check paint levels to kms of painted line for approximate coverage rates and take corrective action.

7. Finished Painting: Depressurizing the paint and bead systems. Turn off paint pumps and open circulating valves. Close supply ball valve to bead tank, then open relief valve to the atmosphere. Prepare to travel to loading site Recess the camera(s), wheel in and lock carriage(s) and turn power off to camera(s) and monitor. If traveling for a distance, shut down compressor by turning toggle switch to “Start”, close service valve and let the pressure drop and engine cool down. Turn the key to the “OFF” position.

8. Truck Loading: When ready to load paint and beads de-pressurize paint system, turn off pump air supply valves, Open valve No. 6 and turn off water pump switch. Shut off air supply to the bead tanks and bleed pressure, close the ball valve ‘A’ on the pressure supply line and open the relief ball valve ‘B’ to the atmosphere. At this point if the truck must travel a distance to the load site the cameras should be recessed, the carriage wheeled in and hooked up, the power system shut down and the compressor turned off. At the loading site the truck is positions adjacent to the supply truck, or the product on the ground. Start the compressor if it was shutdown

9. Paint Loading: Lift the paint tank lids, measure volume of paint remaining in the tank to determine amount to be recorded on Fill report. One operator controls air supply valve to diaphragm pump. If you wish to load directly into the tanks close valves No. 1, 4, 6 Open No. 2, 5. If you can load through the Y-Trap filter In this case close valves no. 1, 2 open valves No. 4, 5, 6(Have ready a 20L pail of thinner.) White paint is loaded first. Hook the load hose up to the cam lock fitting on the white loading port. One operator controls the load hose and will insert the tube 3’-4’ into the paint. When ready the pump is started by opening the air valve approximately ¾ open. Valve No>3 is now opened and paint will begin moving through the load hose into the tank. Regulate the air supply to the pump to ensure maximum efficiency.

10. Completed Loading: As each container is emptied the load hose is transferred to a new one. Pour a couple of liters of thinner into the empty container, swish it around and pour the residues into the container being loaded. After the designated amount of white has been loaded suck the remaining thinner through the hose to clear it from residue. Hold the hose higher than the pump, shut valve No.3, circulate the paint for 2-3 minutes by opening valves No. 1, 4, 5, 6 and close valve No. 2.

Repeat Procedure for loading Yellow paint.

Place caps onto loading hose and pumps, then store securely. Place the bung plugs back onto totes securely. Measure and record paint levels for new Fill Report.

11. Bead Loading: The load hose is attached to the tank inlet with a cam lock fitting. Place the end of the tube in a container of beads. To create a vacuum open air supply valve ‘C’ to the Venturi. Valve ‘A’ should be closed, valve ‘B’ open. After 30 seconds open Valve ‘D’ to the load hose and begin sucking beads for best results keep the end of the load tube near the surface of the beads in the container. When the tank is full the sucking action will stop. Close valves D, C & B drain residual alongside the tank. Record amount of bead used for the previous Fill Report and recode amount of bead for current report.

12. Maintenance Duties to perform during loading program: remove, clean and replace paint gun tips. The tips are removed by unscrewing the deflector assembly from the bottom of the gun. Remove carbide tip and atomizing spacer. Clean all parts using a knife or small brush and some thinner. Scrape around the nozzle opening where the needle seats. Assemble parts using WD-40 to lubricate the deflector threads. Remove any overspray build up from the bread guns and carriage using knife, scraper or wire brush. As time permits assist the supply truck driver with organizing empty containers and bead containers. Clean out the Y-trap filters as necessary. Make sure system is not under pressure. Close pump air supply valve, open valve No. 6 Close Valves No. 4, 5 to isolate the filter. Place a small bucket under the Y-trap to catch residues. Remove the filter screen with a pipe wrench, clean the screen with some thinner. Lubricate the screen threads with some grease and replace open valves No. 4, 5.

13. Make use of a spotter when practicable for backing through an intersection on a job site.

14. Always park in a safe area, away from traffic if possible.

****ALL BEACONS, STROBES AND MESSAGE BOARDS ARE TO BE USED AT ALL TIMES DURING THE PAINTING OPERATIONS**

4.2.7 - TOWING EQUIPMENT

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Equipment checklist, Refer to Hazard Assessment, TAS and ERP.

Training Required;

Employees must be deemed competent prior to Towing Equipment and have the required license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedures and Precautions to Offset Hazards

1. Inspect the sling to make sure it meets the required standards (meant for pulling only).
2. Inspect sling for weak, stretched webbing, and cracks within the hooks.
3. Hook sling onto disabled equipment on the lowest point possible.
4. Place hook in a manner that it cannot slip out when tightening.
5. Back mobile piece of equipment (that is to do the pulling) close to the disabled one so the sling can be connected.
6. Place sling on the pulling point of the mobile equipment.
7. Have a spotter on the ground to give directions.
8. When sling is tight, look to see if everyone is out of harm's way.
9. When safe to do so apply power (slowly) to the mobile machine.
10. Never jerk the sling (it will most likely snap)
11. Once you have pulled the disabled machine out, create some slack in the sling.
12. Have a spotter un-hook both ends of the sling.
13. Always use a spotter if needed to move through an intersection to hook up.
14. Always park vehicles/equipment in a safe area, away from traffic when possible.

NOTE:

Never tow in reverse as this will damage the towing unit

4.2.8 - LINE LASER (Portable Airless Painter)

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris, Spills/Drips, Over Spray)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Spill Kit, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating the Line Laser.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Start Inspection: Check all fluid levels and visually check hoses, fittings, cables and tires. Ensure tips are clean and positioned properly.

2. Preparing for Painting: Place pail of paint in holding ring on line laser and place suction hose into pail. Make sure pump switch is in the off position. Start engine and set idle to desired position.

3. Priming Pump & Purging Lines: Always remove tip and lower engine RPM prior to purging. Purge into pail until paint has a steady flow. (Hold gun assembly near side of pail to prevent splashing) Install tip when process completed.

4. Applying Paint:

a) Hand wands/Stencil - Inspect road for cleanliness and sweep if necessary. Measure location and position stencil adjust the throttle to desired RPM (achieving no pulsation of the fan pattern) have tip 18 inches from surface and apply trigger. The first coat should be thinner than the second coat, both paint and beads are to be applied evenly.

b) Stationary Gun(s)/Pushing- Select gun(s) to be used by setting trigger selector. Height of the gun(s) determines the line width (Always test on a piece of cardboard or shingle). Check alignment then spray at an even speed, as this and pressure determine line thickness. Apply beads.

5. Flushing System: Removal of tip is done prior to flushing. Turn pump off, ensure pressure control valve is turned all the way counter clockwise and the pressure relief valve is closed.

Lift the suction tube from paint pail, use a lid to prevent drips, replace paint pail with solvent pail and place the suction tube into it. Start the engine and engage pump maintaining just enough RPM not to stall it, hold the gun against the solvent pail until solvent appears. Open the relief valve allowing solvent to circulate. Turn off pump and engine, clean the tip and screen assembly (Always apply grease to housing threads). Neatly roll up the hose in its designated area, wiping it clean as you do.

6. Always use a spotter to move through an intersection on a job site.

7. Always park in a safe area, away from traffic if possible.

****To clear clogged tips, engage the safety latch. Turn tip to leaning position, release safety latch and spray.to return to spraying, engage safety latch turn tip to spray, unlock latch and commence spraying!!**

4.2.9 - JOBSITE SET UP

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. Sign Logs when required.

Training Required;
Employees must be deemed competent prior to conducting Jobsite Set Up.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Signing in town: The foreman will give instructions on where to place the signs. Commonly there is to be an Obstruction Ahead followed by a Men Working sign prior to the start of the jobsite. Roll up style signs are most commonly used.

***The Operations of spray painting lines creates a moving job site. To accommodate the need to protect the workers we have established different set up strategies.

2. Signage on Highways: Metal signs are to be used for highway jobs. The foreman will give instructions on what signs are needed and placement of them.

* When placing or picking up signs, ensure warning lights are on and make use of the arrow board to help guide & notify drivers. Stay away from traffic at all times, looking in the mirror prior to opening the door to ensure it is clear to exit the vehicle. Use of two workers is always best.

3. Always use a spotter when moving through an intersection on a job site.

4. Always park in a safe area, away from traffic if possible.

Terminating the work zone: To terminate the work zone, place a small tapper at the end of the work zone, returning traffic to it normal flow.

Typical Traffic Control Zones : Advance Warning Area , Transition Area, Buffer Zone, Work Area and termination Area.

4.2.10 - BLOCKER/ATTENUATOR TRUCK

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris, Rear end Collision)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Spill Kit, Refer to Hazard Assessment, TAS and ERP. WHMIS and TDG when required.

Training Required;

Employees must be deemed competent prior to operating the Attenuator Truck and have the correct license.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre-trip inspection: Check all fluid levels, belts, tires, lights, horn, back-up alarm etc.as per Schedule 1. Also record any problems on the logbook/ELD.
2. Operation on a Two Lane Undivided Highway: The Attenuator truck travels in the driving lane following the paint truck between distances of 50 to 400 meters, taking sight lines into consideration. Ideally traffic will pass both trucks at the same time, if not the Attenuator truck can make it safer by using approaches to assist in the passing process. The message board will have a caution message or one to be determined by the Foreman. In the event of an approaching wide load or an emergency vehicle, it is the drivers' responsibility to inform the rest of the crew of these hazards to enable them to take evasive action as required. This information may have been originally given to them by the QC driver from further back in the queue of work vehicles.
3. Operation on a Multi-Lane Divided Highway: (Right Lane) When painting the right lane the Attenuator truck follows the paint truck 50 to 400 meters, considering sight lines. The arrow Board displays the left Chevron. (Left Lane) When painting the left lane the Attenuator truck follows the paint truck 50 to 400 meters, considering sight lines, displaying the right Chevron. If the left shoulder is too narrow to accommodate the Message truck the Attenuator truck will then follow it at a distance of up to two kilometers.
4. General Functions: Can be the initial warning to drivers and passes pertinent information onto other crew members/Foreman. Quality control of the painted lines, documents

measurements, land marks, road length, and intersection/junction locations as per foreman's request. Reports all findings to the Foreman and the Attenuator operator is also to assist with the loading of the paint truck as well as message marking. The Foreman will advise him about what his duties will consist of e.g. Signing, coning, flagging or painting.

5. When practicable make use of a spotter when backing through an intersection on a job site.
6. Always park in a safe area, away from traffic when possible.
7. If a vehicle pulls out to pass block/attenuator, the driver is to radio ahead about uncontrol vehicle entering work zone and lay on the horn till the driver has passed crew or is out of site. If possible, record all information about the vehicle, save any video and contact local authorities.

4.2.11 - LOADING/UNLOADING EQUIPMENT AND MATERIAL

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents, Flying Debris, Spills/Drips)
• Injuries to workers and public (Flying debris, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Spill Kit, Refer to Hazard Assessment, TAS and ERP.

Training Required;

Employees must be deemed competent prior to any loading/unloading and have the correct license and be Forklift Certified.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: All equipment, material, pallets and totes must be checked for damage or leaking before loading or unloading. If leaking or Damage inform Foreman for instructions.

2. Loading Equipment or Material: All equipment needs to be in a safe location away from traffic. Ensure any ramps are in position, doors are open fully on trailers or trucks and the area where the equipment or material is to be loaded is free of workers, tools and debris. Carefully load equipment and or materials into desired position. Secure the load as per the NSC regulations. Ask for assistance for equipment you are unfamiliar with.

3. Unloading Equipment or materials: All equipment needs to be in safe location. Remove all securement devices, position any ramps, open doors as required on trucks or trailers. Ensure the area where the equipment or material is to be unloaded is free of any workers, equipment, vehicles, tools or debris. Carefully unload equipment or materials. Get assistance from other workers as needed or use a forklift for the materials. (You must be certified to use a forklift) If you are unfamiliar with a certain piece of equipment, ask the operator or someone else who is experienced with that piece of equipment to unload it for you. Use a spotter as required.

4. Finish: Ensure all equipment used is parked in a safe area, away from traffic if possible. Any pins that were removed have been replaced, ramps are returned to their travel position, and doors are closed and locked. All ratchet boomers, chain, Ratchet straps, tonnage or load protectors have been stored in a designated or safe location.

4.2.12 - VEHICLE PAINT CLAIM PROCEDURES

Occasionally the public will drive over freshly painted lines that are not dry and may splatter paint on their vehicle.

Crew Procedure:

When such accidents occur and they are witnessed by a member of the paint crew the full details surrounding the incident must be recorded on a near miss Report. These details include;

Exact Location, Adjacent Roadways (hills, curves, and flat section), Sight distance, locations of warning signs, type of line being painted, make and license number of vehicle involved.

This report is then handed off to the foreman on site.

Foreman Procedure:

In some cases the driver of the damaged vehicle will stop immediately and demand that the vehicle be cleaned or repaired. The Paint foreman is to handle these situations in the following manner:

1. Treat the public in a respectful manner
2. Speak calmly and politely
3. Do Not admit to any liability or responsibility for cleaning of vehicle.
4. Do Not attempt to clean vehicle
5. Listen carefully and record paint condition and the fact surrounding incident on a Near Miss Report.
6. Advise the vehicle driver that the fresh paint should be removed as soon as possible.
7. Suggest they contact a vehicle detail shop
8. Suggest they do recommended procedure from paint supplier as stated in ‘Appendix 1’ attached to this procedure.
9. Inform the driver that Lafrentz will not accept any responsibility for any removal decisions made by them.
10. Advise they contact the office with any further questions
11. Forward information to Paint Superintendent
12. Always park in a safe area, away from traffic if possible.

Office Procedure:

Throughout the year we will receive complaints concerning paint splattered on vehicle.

1. Remember vehicle owner shall be treated in a respectful and courteous manner
2. Record detailed information on a complaint form.
3. Vehicle driver shall be informed that Lafrentz operates under procedures set forth by Alberta transportation & utilities with respect to warning signs, blocker truck operation and paint truck operations

4. Lafrentz exceeds their criteria in most cases.
5. The incident shall be investigated, however at this point Lafrentz does not admit any responsibility
6. Advise vehicle driver to contact vehicle detailing shop while paint is still fresh or if they choose to try cleaning themselves we can forward them recommended procedure from paint supplier (as shown in appendix 1 attached to procedure).
7. Inform vehicle owner that Lafrentz will not accept responsibility for any removal decisions made by the vehicle owner.
8. Ensure that any emails sent to complaint are saved in an outlook directory within the senders email for future reference.

Update foreman/Super of any further information or correspondence with complaint.

APPENDIX 1

PROCEDURE FOR REMOVING PAINT FROM CARS

As soon as possible after getting paint from road stripes on vehicle, wash the vehicle at a pressure car wash. This will loosen and remove most of the paint unless it has dried for more than a day.

If the car wash does not remove the paint, allow the water to dry-off the vehicle. Spray the paint residue with WD-40 and allow the WD-40 to stay on the area for 1-2 hours and then rewash the vehicle. The WD-40 will soften the traffic paint without hurting the vehicle finish. If there is a heavy concentration, repeat the procedure.

For heavy accumulations or paint that has dried for several days, apply a liberal coating of Vaseline petroleum jelly to the dried traffic paint and allow staying on overnight. Take the vehicle to a pressure car wash and wash. This should remove most of the traffic paint. If not, repeat the procedure.

DO NOT SCRUB THE FINISH WITH SOLVENT OR SCOURING CLEANSER!!!!!!! THIS WILL DAMAGE THE FINISH.

After cleaning the paint away, apply a good Wax to the vehicle's finish. Wax should remove any lasting signs of the traffic paint.

Wheel wells are very difficult to remove the paint from since they are normally a flat finish. Apply a liberal coating of Vaseline to the area and leave for several days and then pressure wash. Applying an alcohol such as Solox or Rubbing Alcohol to the area in the wheel well will help to soften any residue left after the Vaseline. Again DO NOT SCRUB!! Just apply with a very wet rag or sponge.

4.2.13 - POWER TAILGATE

Potential Health or Safety Concerns;

• Damage to Equipment/Vehicles (Accidents)
• Injuries to workers and public (Spills, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment, TAS and ERP. OSCAM and Sign Logs when required.

Training Required;

Employees must be deemed competent prior to operating a Power Tailgate.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

1. Pre Check: Is to be completed with unit daily per/post inspection.
2. Using Power tailgate: Ensure the truck is in park and park brake is engaged. Be aware of pinch points when activation the power tailgate. Ensure items that are to be lifted or lowered do not exceed manufactured specifications prior to use. Try to use power tailgate when on an even surface to prevent binding. (Always ensure truck is in safe area prior to using the power tailgate).
3. Finished with the power tailgate: Return power tailgate to original position, ensure the ears settle into the drop-in plates. Push in the kill switch in the cab. (NSC load securement requirements must be maintained regarding the load).
4. Always use a spotter to move through an intersection on a job site.
5. Always park in a safe area, away from traffic when possible.

4.2.14 - RESTRICTED SPACES

Potential Health or Safety Concerns;

• Damage to Equipment (Depending on activities)
• Injuries to workers and public (Flying debris, Spills, Burns, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves if required, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent prior to entering a restricted space.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precautions to offset hazards;

Whenever a worker is required to enter a restricted space, which in the case of Lafrentz Road Marking, Consist of paint tanks on the paint trucks, the following procedures must be followed.

1. A Hazard Assessment must be conducted that covers the work to be done, entering and exiting the space safely and emergency evacuation of the space.

2. All power sources (electrical or hydraulic) must be locked out or removed. Refer to Work Safe Practices # 47, 48 in this manual.

3. Signs must be prominently posted to advise all unauthorized personnel to stay clear of the space.

4. A worker that stands watch for the worker in the restricted space must be present at all times.

5. All required P.P.E must be available and utilized by the worker in the restricted space as well as being available for the worker who is on watch.

6. Fire extinguishers must be present if any type of "hot work" is to take place and all hot work procedures must be adhered to, including permits.

7. When work is completed and all equipment/tools are removed from the space, all signs are to be removed.

4.3 - MANUFACTURING

These procedures are in place to help prevent injuries while working in our manufacturing facility.

4.3.1 - STRIPPING THERMOPLASTIC

Potential Health or Safety Concerns;

• Damage to Equipment (Depending on activities)
• Injuries to workers and public (Flying debris, Tripping, Cuts, Strains, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest/Coveralls (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Kevlar Sleeves/Heat Resistant Gloves if required, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent prior to stripping thermoplastic.

- *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precaution to offset hazards;

1. Set the conveyor table and the scissor lift tray rails in place; Make sure there are no objects on top of the conveyor or on the lift that may fall.
2. Anchor the scissor lift
3. Bring the cooling rack close to the scissor lift and start unloading the trays from the bottom up; Be aware of any pinch points and move the cooling rack in a way that your back is not compromised. (Ask for help when moving heavy object).
4. Secure cooling rack wheels in order to make it easy to load/unload trays Always pay attention to the trays. Be aware that tray may fall off the cooling rack if left unattended.
5. Tray must be carefully loaded/unloaded by two people. Both workers must be careful not to pinch each other's hand when pushing or pulling the trays in/out of the cooling racks.
6. Strip thermoplastic from silicone molds, insure a firm grip.
7. If first mold is not coming out with reasonable ease use the pry bar. Use of wrist supports is recommended
8. Once job is complete ensure the area is left clean and tools are put back in their proper place.

4.3.2 - STRETCH WRAPPER

To prevent injury and/or electrical shock, careful operation of the machine and awareness of its many functions is required. Stay alert and become familiar with the safety recommendations and operational components of the equipment.

- Rotation Speed: Variable to 9 RPM
- Maximum Load: Size 52" x 52" x 80"H
- Maximum Load Weight: 4'000 lbs
- Stretch film size: 20"
- Machine Weight: 1,6550lbs
- Power requirements: 110V /1ph /60hz/ 10amp

Potential Health or Safety Concerns;

• Damage to Equipment (Over loaded/worked)
• Injuries to workers and public (Flying debris, Tripping, Strains, Pinch Points, Crushing)

Equipment, PPE and Apparel to be used;

CSA Approved 6" footwear, Hard Hat, Gloves, Reflective Vest/Coveralls (Class 2-3), Ear/Eye Protection, (Dust mask or respiratory protection if required). Alberta #2 First Aid Kit, Fire Extinguisher, Refer to Hazard Assessment and ERP.

Training Required;

Employees must be deemed competent prior to using the Stretch Wrapper Machine and be Forklift Certified if needed.

❖ *A Hazard Assessment and emergency response plan must be completed/share before work starts.*

Recommended Procedure and Precaution to offset hazards;

Wrapping

1. Place load on turntable with forklift
2. Secure film to load, press the start button
3. Load wrapped according to your programming
4. After load is wrapped, operator cuts film and secures film tail
5. Remove wrapped pallet load and the Sentry is ready for the next step
6. Push Red stop button if trouble arises

Loading Film

1. Open hinged door (Power is automatically disconnected when the door is opened)
2. Pull the film tail through, according to diagram on the equipment

3. Close door

4.4 - RESPIRATORY PROTECTION

4.4.1 - RESPONSIBILITIES

Operations Manager

The Operations Manger has overall responsibility for ensuring that all persons are made aware of their responsibilities for respiratory protection. The Operations Manger in consultation with the Safety Advisor must ensure work processes with the potential for contaminants are identified and respiratory protection needs identified. The Operations Manger is responsible to ensure respiratory protection is available through the purchasing system and ensuring the availability of qualified personnel for conducting respirator fit tests.

Superintendent

It will be the responsibility of the Superintendent to ensure that respiratory protection is available to workers that may be affected by airborne contaminants. The Superintendent is responsible to ensure personnel receive annual respirator fit tests.

Site/Crew Supervisor

It will be the responsibility of the Site/Crew Supervisor to take reasonable and practical measures to ensure respiratory protection is readily available and used, and workers maintain their respiratory equipment. The Site/Crew Supervisor is responsible to ensure workers have received proper instruction and training in respiratory protection.

Workers

It will be the responsibility of Workers to use respiratory protection in accordance with the most current instructions and training received when required to prevent exposure to airborne contaminants. Workers are responsible for taking all reasonable precautions to prevent damage to the respirator and reporting any respirator malfunction or damage to their immediate supervisor. Workers will advise their Supervisor of any airborne hazards that have not been previously identified, and when they need to renew their annual respirator fit test.

Safety Advisor

The Safety Advisor is responsible for working with the Operations Manger and Site/Crew Supervisors to provide the resources that will ensure an effective respiratory protection program is in place. This includes:

- conducting air sampling
- providing respiratory protection education materials
- providing respirator fit tests upon request

- preparing and implementing written procedures to support the Respiratory Protection Program
- consulting with outside sources to maintain a current, practical program
- evaluating the effectiveness of this program annually•

4.4.2 - WHY RESPIRATORS ARE NECESSARY

Respirators have an important role in construction for the prevention of respiratory illnesses. Often protective equipment is the only means to protect workers from workplace hazards. Construction sites, due to the ever-changing conditions on the worksite, do not provide many opportunities to apply engineering (hazard) controls. Work on our construction may require workers to use respiratory protection for the following types of exposures:

- asphalt fume (paving in locations with poor ventilation)
- silica dust (concrete grinding/cutting)
- asbestos (present in some building materials)
- organic solvents (cleaning agents/solvents)
- irritant mists (acid wash)
- lead (found in industrial paints and coatings)
- welding fume, etc.

Respirators will likely need to be used in each of these situations. For this reason, we have implemented a Respiratory Protection Program. Subcontractors are expected to have a program that is equal to or better than our Respiratory Protection Program.

Hazard Identification

Respiratory hazards at the work site must be identified and evaluated to determine where personnel protection is required and which type is appropriate.

Immediately Dangerous to Life and Health (IDLH) situations must be assessed by a competent person. Do not attempt to determine the hazard level or protection required on your own. Assume that each of the following are IDLH environments:

- oxygen deficiency
- a confined space
- contaminants at or above explosive limit
- firefighting situations

Changes in process operation, air movement, and temperature must be considered as factors in hazard assessment.

4.4.3 - RESPIRATOR SELECTION

Respirators protect against different hazards, at varying levels and with assorted limitations. Use only the appropriate NIOSH and MSHA approved respirators. In most circumstances the nature

of the work performed by our personnel may require the following types of respiratory protection:

Work Activity Protection	**Respiratory**
Nuisance Dust	N95 Dust Mask
Dry Cutting, grinding, sanding	Half face elastomeric respirator with P100 filter cartridge
Presents of Silica	Half face elastomeric respirator with P100 and organic Vapour (VO) filter cartridge
MMA fume in areas with poor ventilation or Spraying	Half face elastomeric respirator with (VO)P100 filter cartridge and Safety Glasses or Full-face elastomeric respirator with P100 and organic vapour (OV) filter cartridges

Using a Respirator

Evaluate the following before choosing a respirator:

- the nature of the hazard
- who can wear a respirator
- the respirator approval and limitations
- what is happening in the surrounding area

Once the hazard is identified and assessed a decision can be made on which of the following three major respirator types is required.

Air Purifying Respirators: These respirators filter the air but do not supply it - ensure the oxygen level in the work area is greater than 19.5%. Select the required filter designed for the hazard and check its protection capabilities. Certain substances lack adequate warning properties or cannot be filtered from the air with this type of respirator. When working in high concentrations of asbestos a power assisted purifying respirator (PAPR) will be used in accordance with regulatory requirements.

Supplied Air Respirators: These provide a remote source of breathing air from a compressor or cylinder and connect to the user by means of an airline. Compressed breathing air must meet the purity requirements of CSA Standard Z180.1, Compressed Breathing Air. This respirator allows work in environments where air purifying respirators are inadequate but does not include IDLH conditions as an airline could kink or break.

Self-Contained Breathing Apparatus: These provide breathing air from a cylinder worn on the back. It protects from toxic hazards and oxygen deficiency. The SCBA limitations include the cylinder weight which adds stress to the wearer and the protection time, which is limited by the amount of air stored in the cylinder.

4.4.4 - PROCEDURE

Daily Check

Workers must inspect their own respirators on a daily basis, or before each use, for correct operation and fit as follows:

- Inspect respirator to ensure all valves are in place, correct filters are attached and there are no damaged parts.
- Don respirator and adjust straps. Block off filter inlets with hands, breathe in and ensure the respirator collapses.

Respirator Facial Fit

The degree of protection provided by a respirator requiring a close facial seal depends on several factors including:

- the effectiveness of the seal to the facial skin – wearers MUST be clean-shaven
- the efficiency and capacity of the air-purifying filter or air-supplying equipment
- the inward leakage through respirator components

An acceptable fit test determines the ability of each respirator wearer to obtain a satisfactory fit. A fit test must not be used to evaluate the air-purifying components in a respirator.

The efficiency and capacity of respirators is determined by the manufacturer – their instructions must be followed. Under no circumstances shall a person wear a respirator for which a satisfactory facial fit has not been obtained.

Fit Test Procedure

All respirators must be qualitatively fit tested when first issued and annually thereafter. Fit test as follows:

1. Attach cartridge filters.
2. Ensure that wearer is able to detect the banana oil odour (or irritant smoke) without a respirator on. Failure to be able to detect the banana smell voids a fit-test and an irritant smoke tube must be used instead. Check worker sensitivity to a small amount of smoke from a tube.
3. Instruct wearer to put respirator on and conduct the daily check as indicated previously.

4. Once the daily check has been completed, instruct wearer to breathe normally and close eyes. Wave the banana oil or irritant smoke gently around the entire perimeter of the face seal area and at the filters of the respirator.
5. Instruct wearer to take regular deep breaths while continuing to apply the banana oil.
6. Instruct wearer to breathe normally and turn head from side to side and up and down, continue to apply banana oil.
7. Instruct wearer to chew or talk; continue to apply banana odour.
8. Immediately after each successful test, instruct wearer to remove respirator.
9. Record the fit test results on the Respiratory Protection Fit Test Record. Retain this documentation on site for the duration of the job. Send a copy to the Regional Safety Supervisor and keep one copy at the Area Office.

Training

The following persons require training to ensure the proper use of respirators:

- respirator wearer
- supervisor of persons wearing respirators
- person issuing respirators
- person performing fit tests
- person maintaining and repairing respirators

Training records will be retained for the duration of the employee's plus two years. Every person required to use a respirator must be retrained at least annually; and more frequently in special circumstances. The training for every person required to wear respirators will consist of:

- the nature, extent and effects of respiratory hazards to which the person may be exposed
- an explanation of the operation, limitations and capabilities of the selected respirator
- instruction in procedures for inspection, donning, removal, checking the fit and seals, and wearing the respirator (using hands-on techniques to enable the person to become thoroughly familiar and confident with the respirator)
- an explanation of the procedure for maintenance and storage of the respirator
- recognizing respirator malfunction

Supervisor training will include respirator selection, fit, issue and inspection, and monitoring of use.

Cleaning, Maintenance & Storage

Respirators require regular maintenance to retain their original effectiveness. An acceptable program of care and maintenance includes:

- cleaning and sanitizing
- inspection, testing and repair
- appropriate storage
- record keeping

Respirator users must inspect their respirators before and after each use and ensure that they are cleaned and sanitized after each use. Respirators stored for emergency and rescue use must be inspected monthly.

On sites where employees are responsible for the maintenance of individually assigned respirators, they must be thoroughly trained in cleaning and sanitizing procedures, and appropriate cleaning and sanitizing materials must be available. After being cleaned and sanitized each respirator must be inspected and tested to determine if it is in proper working condition. Tag defective or non-functioning devices "OUT OF SERVICE" and remove from use until disposed of or repaired.

An acceptable respirator inspection includes a check for:

- tightness of connections
- condition of component parts - face-piece, harness, valves, connecting tubes, harness assemblies, filters, cartridges
- shelf-life dates
- proper functioning of regulators
- pliability and deterioration of rubber or elastomeric parts

A record of respirator inspections will be maintained including information on:

- date of use and date of inspection
- physical condition and repairs made
- cleaning and sanitizing
- tests or remedial action taken

Where inspections indicate that repairs or overhaul are required, follow the manufacturer's instructions. Only properly trained personnel may repair and test respirators, using original manufacturer's replacement parts and repair procedures. Store respirators in a manner which protects them from distortion, dust, ozone, sunlight, heat, extreme cold, excessive moisture, vermin, damaging chemicals or any other potential hazard.

Health Assessments

Where there is doubt about the fitness or ability of an employee to wear a respirator, instruct the employee to seek medical advice from a physician who is knowledgeable about the work. The physician will be requested to inform management about the fitness or ability of the employee to wear a respirator.

Program Evaluation

The effectiveness of the Respiratory Protection Program will be periodically evaluated by management to ensure that wearers are being provided with adequate protection. If any corrective actions are required, they will be taken immediately, including the reporting of all pertinent data. This evaluation will be conducted at least annually, or as required.

Wearer acceptance of a respirator is an important matter to consider when evaluating the effectiveness of the Respiratory Protection Program. Supervisory personnel will consult respirator wearers periodically about the following factors:

- comfort and restriction of movement
- breathing resistance
- fatigue
- interference with vision or communication
- interference with job performance
- confidence in the respirator's effectiveness

Supervisory personnel will also review the Respiratory Protection Program frequently to ensure:

- correct types of respirators are selected, issued and used
- wearers are adequately trained and wear respirators correctly
- respirators are adequately inspected and maintained; and respirators are properly stored

Guidelines for Respirator Use

1. Ensure that the face is clean-shaven where the face-piece seals to the skin.
2. Ensure that respirators which require an effective face seal to perform effectively are not worn if this seal cannot be achieved and maintained.
3. Where practicable, avoid wearing contact lenses while wearing a respirator. Ensure that corrective lenses do not interfere with the face-piece seal.
4. Ensure that no covering passes between the sealing surface of the respirator face-piece and the face.
5. Ensure that other Personal Protective Equipment does not interfere with the face-piece seal.
6. Inspect the respirator for proper operating condition prior to each use.
7. Check the face-piece seal immediately after donning a respirator.
8. High and low air temperature environments can affect respirator performance and the safety and health of the user. Ensure strict adherence to good maintenance, repair, training and fit test and use procedures while working in extreme temperatures.
9. Monitor the use of respirators to ensure that:
    1. The correct respirator type is being used
    2. The correct filter is being used for air-purifying respirators
    3. They are being worn properly
    4. They are in good working order
    5. Problems are documented
10. Where appropriate, develop specific written work procedures to address emergency and rescue situations.

4.5 - GLOVE REMOVAL

When the hand hygiene indication occurs before a contact requiring glove use, perform hand hygiene by rubbing with an alcohol-based handrub or by washing with soap and water.

I. HOW TO DON GLOVES:

1. Take out a glove from its original box

2. Touch only a restricted surface of the glove corresponding to the wrist (at the top edge of the cuff)

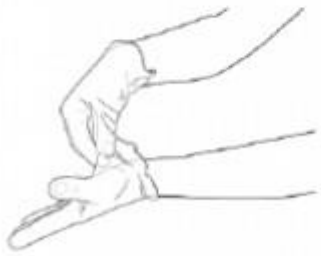
3. Don the first glove

4. Take the second glove with the bare hand and touch only a restricted surface of glove corresponding to the wrist

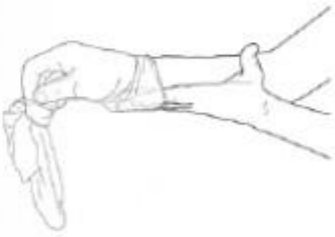
5. To avoid touching the skin of the forearm with the gloved hand, turn the external surface of the glove to be donned on the folded fingers of the gloved hand, thus permitting to glove the second hand

6. Once gloved, hands should not touch anything else that is not defined by indications and conditions for glove use

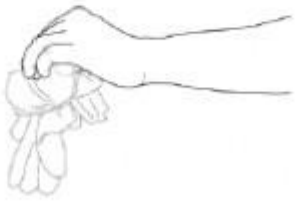
II. HOW TO REMOVE GLOVES:



1. Pinch one glove at the wrist level to remove it, without touching the skin of the forearm, and peel away from the hand, thus allowing the glove to turn inside out



2. Hold the removed glove in the gloved hand and slide the fingers of the ungloved hand inside between the glove and the wrist. Remove the second glove by rolling it down the hand and fold into the first glove



3. Discard the removed gloves

4. Then, perform hand hygiene by rubbing with an alcohol-based handrub or by washing with soap and water