



## VUL-SWP-076(4)-Bulk Water Truck Operations

| SAFE WORK PROCEDURE (SWP)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                             |                                                                                         |       |
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| Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Bulk Water Truck Operations |                                                                                         |       |
| Site                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Vulcan Mine                 |                                                                                         |       |
| Department                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Operations                  |                                                                                         |       |
| PPE Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                             | Workplace Risk Assessment & Control Reference                                           |       |
| <div><div><br/>Safety helmets must be worn in this area</div><div><br/>Ear protection must be worn</div><div><br/>Protective footwear must be worn</div><div><br/>Protective gloves must be worn</div><div><br/>High visibility clothing must be worn in this area</div><div><br/>Eye protection must be worn</div></div> |                             | VUL-WRAC-SWP076(4)                                                                      |       |
| VUL SOP / PRO Reference                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                             | Other Relevant Information                                                              |       |
| VUL-SOP-073-Checking Mobile Plant<br>VUL-SOP-076-Using Mobile Plant<br>VUL-SOP-065-Personal Protective Equipment<br>VUL-SOP-129-Maintain & Water haul roads<br>VUL-MOP-128-Design & Construction of Mine Roads<br>VUL-SOP-144-Lighting<br>VUL-TAR-003-Geotechnical Failure<br>VUL-MOP-089-Dust Management and Monitoring                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                             | <input checked="" type="checkbox"/> Relevant OEM instructions & specification available |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | <input checked="" type="checkbox"/> Pre-start Meeting                                   |       |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             | <input checked="" type="checkbox"/> OCE Report                                          |       |
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| People, Equipment, Materials and Tools Required                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                             |                                                                                         |       |
| People                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Equipment                   | Materials                                                                               | Tools |
| Operator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Water Truck                 | NA                                                                                      | NA    |
| Operators                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Other Circuit Equipment     | NA                                                                                      | NA    |
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| Prestart Information                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                       |
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| <p>Water truck operators must obtain the following information from the prestart meeting:</p> <ul style="list-style-type: none"> <li>a) Active circuits</li> <li>b) Active fill points</li> <li>c) Any other information relating to the task</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |    |
| Roles and Responsibilities                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                       |
| <ul style="list-style-type: none"> <li>a) Water truck operators' responsibilities:</li> <li>b) Provide positive communication of watering activities to all road users.</li> <li>c) Suppress dust on road surfaces and provide a surface condition enabling safe braking and steering of vehicles and mobile equipment in normal conditions.</li> <li>d) The purpose of watering is to control road dust – not to eliminate it, and to maintain a hard, compact surface. Effective watering will increase road life and reduce dust hazards. Refer to VUL-MOP-089 Dust Management and Monitoring</li> <li>e) Water trucks should be refilled with adequate fuel and water at the end of every shift in preparation for the oncoming shift and emergency preparedness. If at any time this cannot be achieved, the operator must report to the shift supervisor/OCE</li> </ul> |   |
| Prior to Carrying out Watering Operations                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |
| <ul style="list-style-type: none"> <li>a) The Water truck Operator shall complete a personal risk assessment (Take5) prior to operation.</li> <li>b) The operator is to ensure the water cannon is functioning correctly, if the water cannon is not operational the operator must record the fault in the defect book, report to OCE/Supervisor and workshop to rectify as soon as practical.</li> <li>c) Upon commencement of the task, the water truck operator is to monitor the operation of the sprays i.e. spray distance, width and output to ensure operational effectiveness.</li> <li>d) Headlights and flashing blue lights shall be switched on for water truck operations at all times</li> </ul>                                                                                                                                                               |                                                                                       |
| Fill Point                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                       |
| <ul style="list-style-type: none"> <li>a) To fill the water trucks</li> <li>b) Operators must enter area with caution and line up the fill point pipe with the tank opening on top of the truck</li> <li>c) Operators should monitor tank level to avoid overflowing the tank on the truck</li> <li>d) The operator shall have 3 points of contact at all times if necessary to mount/dismount the water truck</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                     |  |



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| <ul style="list-style-type: none"> <li>e) If water truck operator needs to exit the cab to turn on fill point manually, the operator should carry a hand-held 2way to maintain positive communications in the event of an emergency</li> <li>f) During nightshift operations the operator is to ensure that adequate lighting of the area is possible prior to disembarking the water truck.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                       |
| <b>Entering Active Circuits</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                       |
| <ul style="list-style-type: none"> <li>a) 5.1 A general call up must be made to all road users on the circuit every time the Water Truck Operator enters the circuit, notifying all circuit users of their intentions to water and must receive confirmation before entering the circuit. If the water is not required operators are to notify the water truck operator.</li> <li>b) 5.2 Communication between Water Truck Operators and Operators on the circuit must be maintained at all times in order to support safe driving conditions and adequate dust suppression</li> <li>c) 5.3 In all other work areas the water truck operator must follow directions given to them by the Supervisor in charge of that area e.g. Drill &amp; Blast, Highwall Mining, Workshop and CHPP areas.</li> <li>d) 5.4 If drill patterns are prepped for drilling with low bunding on edges with drop offs, Bulk water trucks must not enter that area due to insufficient bunding for HME.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |    |
| <b>Strip Spray Method</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                       |
| <p>Strip watering is the primary method of watering carried out by water truck operators at Vulcan Mine. The method of strip spraying detailed below will allow Half the Truck to be on the dry line at all times:</p> <ul style="list-style-type: none"> <li>a) 1st pass is up the haul road with only the left spray operating for Pos 1</li> <li>b) 2nd pass is down the opposite side of the haul road with only the right spray operating for Pos 2.</li> <li>c) 3rd pass is up the road with only the right spray operating for Pos 2.</li> <li>d) 4th pass is back down the road with only left spray operating for Pos 1.</li> <li>e) To maintain a dry line at all times, only one spray is required when watering down ramps and corners</li> <li>f) Under no circumstance are corners or ramps to be completely wet from water truck operations.</li> <li>g) If continuous strip spraying has the potential to cause an overwatered surface, then spot spraying may be required. If spot spraying method is used, it must still be done in the same spray sequence as referenced above.</li> <li>h) Full width watering:</li> <li>i) Is not allowed on defined roads, ramps, corners or intersections; and</li> <li>j) Is only allowed on tip heads, at the excavated floor, and ROM. Exceptions to the above can only occur under the authorisation of the OCE. Dump trucks shall operate one set of tyres on dry lines for maximum traction to reduce the risk of an uncontrolled movement.</li> </ul> |  |



| <b>Excessive Water</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                |
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| <p>If an unacceptable level of risk is identified from excessive watering or rain, operations in the area must cease and all road users notified.</p> <p>The following will be taken into consideration to prevent overwatering:</p> <ol style="list-style-type: none"> <li>Number of sprays selected</li> <li>Pump speed</li> <li>Speed of the water truck while watering</li> <li>Position of the water truck on the road</li> <li>Type of road base material</li> <li>Dry line always to be maintained</li> <li>Engage grader to cut dry line if necessary</li> <li>Prior to operations commencing the OCE will inspect the affected area to ensure the safety and health of persons</li> </ol> |                                                                                             |
| <b>HV/MV Watering Light Vehicle and Back Access Roads</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                |
| <ol style="list-style-type: none"> <li>The preferred method of watering light vehicle and back access roads is to use HR/MR water trucks to avoid HME interaction.</li> <li>Bulk Water Truck that are required to water light vehicle and back access roads will call up on the appropriate mine two-way channel and communicate their planned entry and exit points from the road. The water truck must also be escorted by a light vehicle with positive communication maintained for the duration of the task.</li> </ol>                                                                                                                                                                       |                                                                                           |
| <b>Emergencies</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                |
| <p>In the event of an emergency at Vulcan Mine containing a fire the water truck operator must:</p> <ol style="list-style-type: none"> <li>Ensure there is adequate water in the water truck</li> <li>Immediately attend the emergency and communicate to the OCE the water truck is on route</li> <li>Follow all instructions given to the water truck operator from the ERT Captain and OCE (Incident Controller)</li> <li>Do not leave the scene of the emergency until the OCE gives the direction to remove the water truck</li> </ol>                                                                                                                                                        | <br> |



- e) Attend the de-brief meeting with ERT personal post incident.
- f) Water truck operators should attend periodic ERT fire training sessions. This gives the water truck operators knowledge and confidence to be able to effectively attend and assist in the event of a fire emergency.

