

## Safe Work Instruction - Cleaning and Globe/Sleeve Replacement for Trojan 3000 UV System

**DO NOT use this plant\* or complete this task unless you have been inducted in its safe use and operation by an Authorised Experienced Operator**

This SWI may not cover all possible hazards and risks and should be referred to as a control measure in the risk assessment process.  
Additional training may be required for high risk plant. Site and task may change required PPE.

### PERSONAL PROTECTIVE EQUIPMENT



Eye protection must be worn  
(Must be 400nm resistant)



Long and loose hair must be  
contained or covered.



High visibility clothing must  
be worn



Foot protection must be worn



Hand protection must be worn



Protective body clothing  
must be worn



Face protection must be worn

### POTENTIAL HAZARDS AND RISKS

- Manual Task Injury**  
Manual task injury from incorrect manual handling techniques
- Exposure**  
Exposure to UV – Eye and skin damage
- Slip, Trips, Falls**  
Slip, trip, fall due to uneven or slippery work surfaces
- Electrical Shock or Burn**  
Electrical shock or burn from water near electrical equipment
- Other**  
Exposure to radiation and chemicals  
Biological contamination

### PRE-OPERATIONAL SAFETY CHECKS

- ✓ Complete the Works Online site specific risk assessment
- ✓ Complete the appropriate Works Online Pre-operational plant checklist if applicable
- ✓ Ensure you are familiar with plant operations and controls
- ✓ Ensure that guards are fitted, secured and functional in accordance with manufacturers guidelines
- ✓ Ensure correct module has been disabled prior to disconnecting the module power cable
- ✓ Refer to supplied O&M if needed for procedure clarification
- ✓ Correct PPE is supplied and used

### OPERATING PROCEDURES

- ✓ Turn wipers to "Remote Off"
- ✓ Select UV module on display screen and disable (check indication globes are off on screen)
- ✓ Unplug hydraulic and power leads from the module to be removed
- ✓ Remove channel grates and lift the module using lifting cables and a crane/hoist. Place module on the stand.

- ✓ Fill the self-cleaning system with ActiClean Gel
- ✓ Shake ActiClean Gel in container before use and add a small quantity of Lime A Way to aid with cleaning process. Note: Discard ActiClean Gel in container if too old.
- ✓ Grease the cleaning carriage with food grade grease
- ✓ Clean the globes with a 30% solution of Phosphoric acid/Lime A Way and water
- ✓ Remove grease nipple of hydraulic cylinder and using a grease cartridge gun fill cylinder until all water is removed and grease flows out.

### REPLACING GLOBES AND SLEEVES

- ✓ Undo sleeve nut and pull back sleeve to access globe
- ✓ Unplug the globe, remove and replace with a new globe
- Note: Only touch the new globe with new clean gloves. Do not touch the globe with bare hands or dirty gloves.**
- ✓ If the globe is broken use the globe clean-up kit (see manufacturers procedure)
- ✓ If quartz sleeve needs replacing, fit before fitting new globes, ensure to include the spring, nut and "O" ring

- ✓ When maintenance completed connect hydraulic hoses
- ✓ Turn Hydraulic control to Local Mode and use Extend/Retract switch to test wiper operation/sequence.
- ✓ If satisfied lower the module back into the channel, ensuring the light shields overlap
- ✓ Connect the power lead and enable the module on the display screen
- ✓ Repeat for procedure for next module
- ✓ When modules that are closest to the concrete channel walls are removed for maintenance, the walls should be cleaned of algae growth
- ✓ Whilst on the cleaning rack the Module Enclosure should be checked for seal clarity. This can be done using Sphygmomanometer. If the pressure gauge drops rapidly, seals must be replaced.

### **ENDING OPERATIONS**

- ✓ Replace the channel grates and turn wipers to "Remote On"
- ✓ Ensure worksite is left clean and tidy
- ✓ Clear alarms in Filter Room/Panel and Citect

### **DO NOT**

- ✗ Do not use if plant is faulty. Attach aa Out of Service tag and report fault to your supervisor
- ✗ Do not illuminate globes whilst out of the channel
- ✗ Do not wear loose jewellery
- ✗ Do not use mobile phone while operating plant
- ✗ Do not touch the new globes with bare hands or dirty gloves
- ✗ Do not submerge Module Enclosure under water
- ✗ Do not let hydraulic lines and power lead fall into water

**\*Plant in this SWI refers to any machinery, equipment, appliance, container, implement and tool.**