PRATT EMERGENCY SAFETY SHOWER AND EYEWASH

INSTALLATION & MAINTENANCE CHECK LIST

TO DETERMINE THE SELECTION AND SAFETY CONSIDERATIONS OF EMERGENCY SHOWERS AND EYEWASHES FOR A WORK PLACE ENVIRONMENT THE FOLLOWING INFORMATION SHOULD BE TAKEN INTO ACCOUNT:

FACTORS TO CONSIDER	CHECKED
A risk assessment may be required to determine the appropriate selection of equipment.	
Flushing fluid quality-recommended potable water or equivalent. Fluid preservatives may be required for self-contained units.	
Adequate sized supply piping of flushing fluid.	
Adequate flushing fluid flow rate.	
Adequate flushing fluid supply pressure - range between 210 to 550 kPa.	
Recommended minimum flushing time of 15 minutes.	
Eyewash units should use aerated flushing fluid wherever practicable.	
Fluid temperature - recommended temperature range of tepid fluids between 15.6°C to 37.8°C.	
Thermal control measures maintain fluid temperature.	
Isolation valves - if fitted, must be prevented from unauthorised shut off.	
Containment of contaminated flushing fluid. Also consider a non-contaminated test flushing fluid.	
Personal eyewash units may be required in the immediate work area. Followed by flushing with a plumbed or self-contained eye-wash.	
First Aid Practices - a physician should provide guidance on workplace hazards and emergency equipment.	
Adequate Personal Protective Equipment should be worn as needed.	
Placement of equipment should be suitably assessed. Factors to consider:	
• Within 10 metres of work area.	
• Workplace lighting.	
• Obstructions to path of travel.	
• Work environment.	
• Suitable distance from work area.	
• Fluid reaction to nearby chemicals.	
• Consideration for alarm devices to warn other employees especially in remote areas.	
Ongoing maintenance provisions for weekly and annual testing.	
Training of employees in the use of the equipment.	
Refer to AS4775 for further guidance and information.	

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Company: _____ **Test Date:** _____

Make & Model No.: _____ **Name:** _____

Type of Unit: _____ **Unit No.:** _____

Installation Date: _____ **Unit Location:** _____

The following information has been prepared in accordance with Australian Standard AS4775-2007 "Emergency Eyewash and Shower Equipment" with recommendations from Pratt Safety Systems.

WEEKLY CHECK LIST AND TESTING PROCEDURES			Yes	No	NOTES
REVIEW LOCATION AND SET UP					
1 Location	a.	The type of equipment shall be selected after a risk assessment, and consideration of the specific hazard, work area and other relevant factors have been considered..			
	b.	The emergency equipment shall be located on the same level as the hazard. The path and the path of travel shall be free from obstructions that may inhibit the immediate access and use of the equipment.			
	c.	More than one unit may be required for the application, depending on the hazard, number of employees, location and size of the area.			
	d.	Ensure employee site induction covers shower and eyewash locations on site, and employees are trained how to use.			
GENERAL INSPECTION OBSERVATION					
2 Identification	a.	Check the unit is identified with a highly visible sign complying with AS 1319 and that the sign is in good condition and suitably positioned.			
	b.	Unit is clearly visible and is well illuminated.			
	c.	Test Tag is secured to unit and is updated on the inspection of the equipment to show the last inspection date, initialed by the tester and comments noted. Replacement test tags are available from Pratt Safety Systems. (Part No. SETESTTAG)			
3 Obstructions	a.	Path of travel shall be free of obstructions that may inhibit the immediate use of the equipment. Ensure area near the unit is kept clear at all times.			
	b.	Showers - The centre of shower head shall be no less than 406mm (16") from any obstruction. (The eyewash section of a combination unit is not considered an obstruction).			
	c.	Eyewashes - The nozzles must be not less than 153mm from the wall or the nearest obstruction.			
4 Check Parts	a.	Check that all parts are in place and are in good condition. Replace or repair broken, worn or missing parts.			
	b.	If a shut off valve is installed provisions shall be made to prevent unauthorised shut off.			
	c.	Showers - Ensure that the shower valve and rod assembly are aligned for proper operation. Shower head is fitted and in good condition. No corrosion or deterioration is evident on components.			
	d.	Eyewashes - Dust covers are fitted and will open automatically when activated. There are no broken or missing parts. Aerators if fitted are not damaged, blocked or missing. No corrosion or deterioration is evident on components.			
OPERATION OF SHOWERS & EYEWASHES					
5 Showers	a.	Activate shower for a period long enough to verify operation and ensure flushing fluid is available and clean.			
	b.	If shower is indoors and there is no provision for drainage, use Pratt Safety Shower & Eyewash Test Kit to contain fluid and dispose of later.			
	c.	Self contained showers shall be monitored to determine if flushing fluid needs to be changed or supplemented.			
	d.	Record test on test tag.			

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			CHECK LIST AND TESTING PROCEDURES	Yes	No	NOTES
OPERATION OF SHOWERS & EYEWASHES (CONTINUED)						
6	Eyewash	a.	Activate eyewash for a period long enough to verify operation and ensure that flushing fluid is available. (This weekly interval may be varied on the basis of a documented risk assessment).			
		b.	Adjust water stream if required, to ensure correct pattern, using volume control adjustment.			
		c.	If eyewash is indoors and there is no provision for drainage, use Pratt Safety Shower & Eyewash Test Kit to contain fluid and dispose of waste fluid later.			
		d.	Self contained eyewash shall be monitored to determine if flushing fluid needs to be changed or supplemented.			
		e.	Record test on test tag.			
7	Combination Showers & Eyewashes	a.	Activate both the shower and eyewash as described above while operating simultaneously. Both components should operate to the same performance requirements as individually.			
		b.	Record test on test tag.			
Note: The intent is to ensure that there is a flushing fluid supply at the head of the device, to clear the supply line of any sediment build up that could prevent fluid from being delivered to the head of the device and to minimise microbial contamination due to sitting water.						

EMERGENCY SAFETY SHOWER AND EYEWASH ANNUAL MAINTENANCE SCHEDULE

			ANNUAL CHECK LIST AND TESTING PROCEDURES	Yes	No	NOTES
ADDITIONAL INSPECTION AND OBSERVATIONS						
8	Previous Steps		Perform all of the Weekly checks and operations as part of the annual inspection together with the following checks and operations.			
9	Location	a.	Unit is in an accessible location within 10 seconds of the hazard or work area.			
		b.	Unit is on the same level as the hazard or work area.			
		c.	For strong acids or caustics, the unit shall be located immediately adjacent to the hazard.			
		d.	An additional unit may also be required to be placed outside the hazardous area.			
		e.	Design and location must not pose any hazard to the user.			
10	Valves & Actuators	a.	Shall be easy to locate and readily accessible to the user.			
		b.	Shall be simple to operate and go from closed to open in one second or less.			
		c.	Shall remain open without the use of operators hands until intentionally closed.			
		d.	Shower: Actuator shall be located not more than 1733mm above the level on which the user stands.			
11	Flushing Fluid Supply	a.	Is the unit connected to a flushing fluid supply capable of meeting the performance requirements of the unit for a minimum of 15 minutes.			
		b.	The supply shall deliver tepid flushing fluid (temperature between 15-35°C). If chemical reaction is accelerated by flushing fluid further assessment will be necessary by the person responsible for safety.			
		c.	If there is a possibly of freezing conditions, the unit must be protected from freezing or freeze protection equipment installed.			
		d.	If there is a possibily of temperatures exceeding 38°C suitable control measures should be introduced to prevent risk of scalding. (Thermal Protection).			
12	Minimum Flow Rates		The following minimum flow rates apply for a period of 15 minutes or more:			
		a.	Showers: Plumbed - 75.7 lpm at 210 kPa. Self Contained - 75.7 lpm			
		b.	Eyewash: Plumbed - 1.5 lpm at 210 kPa. Self Contained - 1.5 lpm			
		c.	Eye/Face Wash: Plumbed - 11.4 lpm at 210 kPa. Self Contained - 11.4 lpm			

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			CHECK LIST AND TESTING PROCEDURES	Yes	No	NOTES
ADDITIONAL INSPECTION AND OBSERVATIONS (CONTINUED)						
13	**Recommended Minimum Supply Connection**		Recommended minimum supply connections that should enable the Minimum Supply flow rates to be achieved:			
		a.	Showers: Plumbed - 25mm (1")			
		b.	Eyewash: Plumbed - 12-15mm (1/2")			
		c.	Eye/Face Wash: Plumbed - 12-15mm (1/2")			
		d.	Combination Shower/Eyewash: Plumbed - 25mm (1")			
		e.	If flow rates are still too low then further assessment is necessary to determine appropriate sized supply line and connection. See note below.			
Note: Most Safety Showers and Eyewashes are designed to deliver flow rates in excess of the minimum Standards requirements as listed above. This ensures optimum performance and decontamination treatment. As such check that the fluid supply and pipe size is suitable for the equipment to operate properly. This is more evident with combination units which requires both components to operate simultaneously. If the supply is insufficient the equipment may not operate as it is designed to. Which may require a review of the fluid supply system.						
OPERATION AND TESTING OF SHOWERS & EYEWASHES						
14	**Shower Head Height**		The head must be no less than 2083mm (82") and no more than 2438mm (96") from the surface on which the user stands.			
15	**Shower Pattern**		The fluid pattern must be no less than 508mm (20") diameter measured at 1524mm from the ground level. Flushing fluid is substantially dispersed throughout the pattern. The velocity should be low enough to be non-injurious to the user.			
16	**Shower Performance Testing**	a.	Connect a flow meter unit to measure the flow rate like the Pratt Safety Shower and Eyewash Test Kit.			
		b.	Using the test sock and wheelie bin, monitor the time of the test and the amount of fluid collected, then calculate the volume over a minute.			
		c.	Using the Pratt Safety Shower Test Gauge measure the fluid pattern of the shower head to ensure conformance to Standards.			
17	**Eyewash Nozzles**	a.	Shall be protected from airborne contaminants.			
		b.	Dust covers are in place and will open automatically when the unit is activated.			
		c.	The nozzles must be between 838mm and 1143mm from the surface on which the user stands.			
18	**Eyewash Pattern**	a.	The eyewash unit shall provide flushing fluid to both eyes simultaneously at approximately equal heights, at a velocity low enough to be non-injurious to the user.			
		b.	The eyewash provides enough room to allow the eyelids to be held open with the hands while the eyes are in the flushing fluid stream.			
19	**Eyewash Performance Testing**	a.	Connect a flow meter unit to measure the flow rate like the Pratt Safety Shower and Eyewash Test Kit.			
		b.	Connect the 38mm waste hose to the waste outlet of the bowl or stanchion and drain into a waste bucket or tray. Monitor the time of test and the amount of fluid collected, then calculate the volume over a minute. Use the low profile tray to drain remaining fluid.			
		c.	Check water pattern using a Pratt Safety Eyewash Test Gauge by placing the gauge on top of the fluid stream. The flushing fluid should cover the areas within the parallel lines. The gauge should not be lowered more than 38mm below the fluid's peak.			
		d.	If stream is low or unbalanced, adjust stream with flow control adjustment where fitted.			
		e.	Remove aerators with Pratt Safety Aerator Removal Key, clean or replace aerators. Also check filter strainers and replace any other missing or damaged parts.			