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H&S Alert

FIRE BELOW GROUND ON TUNNEL TRANSPORT VEHICLE

Date of incident:	10/05/2022 at 19;30pm	Incident type:	HiPO
Incident ref:	INC12407	Contractor:	ALIGN
Location:	South Portal, Chiltern Tunnel	Keyword search	Fire, Tunnel

Summary of Incident

A purpose-built tunnel transport vehicle was taking the nightshift crew to their place of work along the tunnel and the Tunnel Boring Machine (TBM). During one passenger drop-off the vehicle developed a fault, and the team visually identified a fire in the power pack. The operator notified Site Incident Control (SIC) and instructed the passengers to evacuate the vehicle and to exit the tunnel. The vehicle operator manually activated the fitted fire fighting system and the fire was suppressed. As the crew made their escape the fire in the power pack reignited. In accordance with emergency plans the personnel already stationed ahead on the TBM were instructed to move to the refuge chamber.

The SIC continued to follow the emergency response plan and the fire service, police and ambulance service were notified and arrived at the site within 10-15 minutes to commence their response.

When it was identified that all personal were in a sustainable position of safety it was decided by the Align site team and Fire Service Commander to wait for fire and smoke to reduce and any hazardous atmosphere to clear before bringing TBM personnel out

Photographs

Findings

The fitted firefighting system within the vehicle power pack was activated by the operator. All personnel disembarked vehicle and walked back to Portal entrance. The agreed site emergency response plan was initiated. The TBM crew (3x) on changeover shift were instructed to enter one of the specialist refuge chambers on board the TBM and blue light support was called.

Initial Actions

Carry out detailed inspections within the engine compartments & power packs within all tunnel vehicles and to Identify any potential issues with the integrity, routing and securing of fuel lines, electrical cables, and hydraulic hoses, particularly focusing on the proximity of heat sources, the possibility of wear from lines rubbing together, rubbing against sharp edges and the correct termination of all lines, hoses and cables.

Consider the design element regarding separation of fuel systems and electrical sources, such as fuel hoses / tanks and electrical batteries.

Review the provision of any fitted firefighting system to ensure that it meets the expectation and the fire risk assessment for the tunnel vehicles and the tunnel.

Regard should be paid to any fitted firefighting systems and cool and quench principles as referred to within in the BS6141Code of Practice for Tunnelling and ensuring that firefighting methods are consistent with the [illegible] arrangements and the expectations of the emergency response strategy.