

HSSQ Alert Template

CORE/HSSQ/PRO/033-F001

Business:	Carillion Construction Services		ALERT		
Title:	Lead Acid Battery Exploded During Charging	Reference No:	CCS 183		
Issue Date:	21 ST March 2016	Issued By:	Geoff Lee		
Type of Alert:	Health & Safety				
Subject:	Precautions when charging lead acid batteries				
Who is affected:	All personnel involved in charging lead acid batteries				
		Battery following a short circuit that caused it to explode.			
Details:	<p>During a recent incident a fitter received minor acid burns to his face when the generator battery he was attempting to fast charge exploded (pictured above). This resulted in him being splashed in the face with acid causing minor burns. Prompt action by the IP and attendant first aider prevented the acid from burning the skin too deeply.</p> <p>The Fitter had been working on a generator that had broken down. As he attempted to start the generator he attached 35mm jump cables to the battery; he firstly connected the positive battery terminal to the jump cable followed by the negative. Whilst connecting the negative lead, the positive clip was apparently knocked touching the negative. Causing a short circuit in the battery which exploded. As it exploded acid was released from the battery, splashing the IP's face.</p>				
Action Required:	<p>Prior to charging a battery in situ the following hierarchy must be considered and eliminated:</p> <ul style="list-style-type: none"> • Where possible the battery should be replaced. • Use an approved booster charger, with safety mechanisms e.g. charge detector & auto on/off • If the battery charger cannot be used use a slave battery • Lastly if the above points cannot be followed, use a battery connected to another vehicle <p>It is critical that during battery charging operations the following points are observed:</p> <ul style="list-style-type: none"> • A risk assessment must be in place • Persons carrying out battery charging operations must be skilled/experienced in such activities. • Ensure that any work with batteries, particularly charging or boosting, takes place in a well ventilated area. • The charging leads are inspected prior to use to ensure that the cable insulation and connecting jaw clips are in good condition. • Ensure the permanent negative battery lead is disconnected before charging commences. • Where battery terminals are set close together then an insulating board must be used to ensure the terminals cannot be bridged by the jaw clips causing a short circuit. • Before connecting the charger ensure that it is switched off & not connected to a power supply. • When connecting the charger leads to the battery, the positive lead is connected first, followed by the negative. • Any jewellery must be removed to ensure it cannot make contact with any of the metal parts of the leads or battery terminals. 				
Further Information:	HSE Guidance Using Electric Storage Batteries Safely INDG 139				
Original Source:	Carillion Civil Engineering/Morgan Sindall JV				
Method for confirming that actions have been taken:	Communicated and records retained with project files				
Local Action Taken:	<< Contract Head to complete >>				