

Lithium-Ion Battery Fire

During a recent event a Lithium-Ion battery being charged at Morrison Energy Services (MES) National Distribution Centre (NDC) caught fire whilst being charged in preparation for issuing to an operational site.

The battery had been removed from the spacer chair and placed on a workshop bench where it was being charged using the designated battery charging unit supplied for the specific purpose of charging these batteries.

The battery had been charging for approximately 40 minutes before staff working close by were alerted to a fizzing sound coming from the battery and obvious signs of a fire.

A fire extinguisher was used on the battery by the NDC staff and the power supply to the charger switched off.

The battery was removed from the building and placed on hard standing away from other materials and equipment.

Once outside of the building the battery reignited and once again was displaying obvious signs of fire.

The fire service attended the site and made the battery safe using equipment carried by the fire crew. A large container was made available to the fire service who filled it with water and then placed the battery into the water filled container. The fire service advised that the battery was now in a safe state providing it remained submerged in water for a minimum period of 24hrs.

The investigation team believe the battery had sustained water damage to the internal cells prior to being returned to NDC which was not immediately obvious to the MES staff maintaining and servicing the equipment.

As a result of the water damage the cells / electrical circuit board overheated during the charging process resulting in the battery igniting and catching fire.

No injuries were caused as a result of this event.

Lessons Learnt

- Any Battery displaying any signs of damage must be quarantined and not be charged
- Arrangements are to be made for the battery to be returned to NDC
- Should any fire be discovered the immediate area must be controlled and the fire service called as soon as it is safe to do so



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