Lithium Battery Handling Fatality File

Accident analysis of the lithium battery explosion which killed two firefighters

On April 16 an explosion occurred when firefighters were responding to a fire in a 25 MWh lithium-iron phosphate battery connected to a rooftop solar panel installation. Two firefighters were killed and one injured.

The Fire Station has been investigating the cause of a fire in a lithium battery which killed the two firefighters while working to put out a fire on the roof of a shopping mall.

The city fire station said it received reports of a fire at the store at 12:17 p.m. and allegedly dispatched 235 firefighters with 47 fire trucks from 15 fire stations.

An explosion occurred in the north section which killed two firefighters and injured a third. Also, a staff member of the Full-Service has been missing since the incident.

The report is unsure of the exact reason for the sudden explosion, but is leaning towards the possibility of environmental wear and tear destroying the insulation of the battery by dust and sand having accumulated:

“The sudden explosion of the power station in the north area could be explained by the safety accident induction mechanism of lithium batteries, which is the thermal failure of the batteries in the extreme conditions when they were significantly affected by internal and external sources. The safety of battery-based energy storage system is complicated because it involves batteries, battery management systems, cables, system electrical topology,

early warning, monitoring and firefighting systems et al. Due to the limitation of accidental information, it is hard to determine the fire accident was initiated by the poor quality of the batteries or the overloading input to the batteries which exceeds the limitation of the batteries. Several possible reasons are proposed as follows”.

The report then lists several probable causes if this fatal failure, and recommendations for how to build and respond safer when it comes to these types of batteries.