

## **Incident Debrief**

### **Building 67A – Lithium Battery Pack explosion**

### **Toxic Gas exposure**

**Incident:** September 25, 2017 – A vape cigarette lithium battery pack explosion inside a student's backpack during class.

Roughly at 7:40 am on Monday, September 25, 2017, in Building 67A Room 216. A student's vape cigarette lithium battery pack exploded inside his backpack and caught fire. The student immediately took the backpack outside the building. 911 was called and the fire department responded and tended to the wounds of the student that was handling the back pack. Additionally they assessed for fire or smoke inside of the classroom, where they found no further immediate threat. The student suffered a minor burn to his hand was treated by paramedics and released. Shortly after the explosion, the second floor was evacuated. As a result of the exposure 10 employees were sent to the industrial clinic on September 25, for toxic exposure and approximately 12 students were evaluated in Student Health Services Center, in the following days.

Lithium batteries are composed of hydrofluoric acid which, when ignited, creates a highly toxic invisible gas. The majority of lithium batteries are manufactured in China, therefore, not a lot of safety information was available. Recommendations posted on the safety data sheets for hydrofluoric acid exposure was ventilation of fresh air.

All employees have been released to return to work and students released to resume class participation.

Around 8:15 am, Chief Wilson sent text notification of the incident to Cabinet.

At 8:45 am, Custodial Services was contacted and a request for a clean-up in the room was processed. Custodial Services responded promptly and cleaned the area inside the classroom of 216.

In order to determine the severity of the gasses released, Duetta compiled information from all resources (OSHA, California Poison Control, Centers for Disease Control and Prevention, GP Battery manufacturer), in which a determination was made to evacuate and quarantine the building until further air quality testing could be conducted. In her conversation with OSHA they agreed and confirmed her plan of action. To ensure the safety of the occupants in the building, the air testing would have to meet the permissible levels before the building would be able to be re-occupied again.

Duetta contacted Dr. Scroggins and notified him of the evacuation and closure of the building for the rest of the day. Dr. Scroggins confirmed and approved this plan of action.

Duetta then contacted Mike Gregoryk to provide him information about the building quarantine and, he agreed. Mike indicated that further contact with Irene was necessary. At 11:30 am, Duetta left a

message with a member of Irene's office with a brief description of the incident and to contact her ASAP. Communication was also made with Sarah Plesetz, Associate Dean, Technology and Health, (the Dean was out ill) who was also instructed to evacuate both floors of the building. Sarah proceeded with either moving or cancelling the classes.

In communication with Facilities Planning and Management, they turned up the air exchange in building 67A to maximize the fresh air intake. Facilities and Duetta worked together to obtain a vendor that could provide us with the appropriate air testing in the building, specific to hydrofluoric acid. Roger Sneed communicated with the vendor, H2 Environmental, and a basic VES air test was conducted at 6:00 pm. Unfortunately, the vendor did not have the correct media's to test for hydrofluoric acid so we were unable to clear the building to be occupied.

As soon as this information was known, Duetta sent out an email notification to the Dr. Scroggins, Irene Malmgren, Dave Wilson, Jemma Blake-Judd, Sarah Plesetz, Mike Gregoryk and Gary Nellesen indicating that the building would remain in quarantine until we could obtain the results and have the building tested specific to the gas that hydrofluoric acid produces, which was expected to be on September 26.

H2 Environmental was able to obtain equipment the necessary to conduct the test and proceeded with testing on September 26<sup>th</sup> at 2:00 pm. H2 informed us they would not have the results back from the lab for 24 hours.

Another email went out to all parties indicating the timeline and when we may have the results.

On September 27<sup>th</sup> at 2:00 pm, we received a phone call indicating the test was clear and the gas was within specs of Cal OSHA and OSHA. Therefore; the building could be re occupied.

Classes resumed in the building on September 28<sup>th</sup>.

All employees have been released to return to work and students have been released to resume class participation.

**Outcomes:**

- Further discussion of banning Vap cigarettes on campus
- Checklist for dispatch to determine what kind of clean-up is being requested to avoid chemical exposure of employees
- Review of adding Industrial Hygienist vendor
  - ASCIP does have a Hygienist depending on availability – testing would be an additional charge
- Building 67A quarantined for 3 days of instruction
- Ten employees received medical treatment
- Twelve students evaluated for exposure