

# Report: Static electricity caused Hawaii lab explosion

2 July 2016, by Cathy Bussewitz

A laboratory explosion at the University of Hawaii that resulted in a researcher losing her arm was likely caused by static electricity, according to an independent investigation.

The University of California Center for Laboratory Safety, which handled the investigation, released its results Friday.

The explosion that occurred in March was initially thought to have been caused by a faulty pressure gauge, but the [investigators](#) said [static electricity](#) released into a tank most likely caused the explosion, said Michael Bruno, vice chancellor for research at the University of Hawaii at Manoa.

"By all accounts and from everything that we know so far, there were many, many efforts to make this process as safe as possible, and in fact the exact same experiment essentially had been conducted 10 or perhaps 11 times prior to this accident occurring," Bruno said.

The researcher had told fire department investigators she would get shocked on occasion when touching the tank. She reported that to the professor who hired her to conduct research into bioplastics and biofuels, but he told her not to worry about it.

The day before the explosion, the researcher reported hearing a cracking sound while conducting an experiment. She was advised to use different equipment, advice Bruno referred to as "what looks like a tragic decision."

"In hindsight, that was not the right interpretation of what had happened," Bruno said.

Investigators said it was challenging to determine the cause of the detonation because they weren't able to inspect the accident scene until 13 days later. It was important to first clean up the blood and damage to the lab and to ensure that the

building was structurally sound, Bruno said.

The investigators also weren't able to interview the researcher so they had to rely on a report from fire department officials who interviewed her.

"She went through a tragic and traumatic experience that I don't think any of us can even imagine," Bruno said. "She was conscious throughout, and she elected not to have contact while she was in the hospital. Soon after she left the hospital, she went back to her native United Kingdom, and so we have not to this day been able to speak to the researcher."

Investigators said a digital pressure gauge was the origin of the electrical current that caused the detonation. The [researcher](#) and some equipment in the lab were not properly grounded, they said.

The laboratory is part of the Hawaii Natural Energy Institute on the school's flagship Manoa campus. Every laboratory at the university that's involved with the use of flammable or pressured gases has been shut down since the day of the accident, and the university is enacting many of the recommendations listed in the report, Bruno said. He expects that some labs may be ready to re-open next week.

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APA citation: Report: Static electricity caused Hawaii lab explosion (2016, July 2) retrieved 14 October 2019 from <https://phys.org/news/2016-07-static-electricity-hawaii-lab-explosion.html>

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