

# University of Hawaii fined \$115,500 for lab explosion

State occupational safety and health agency found 15 workplace safety violations associated with blast that severely injured a researcher

*By Jyllian Kemsley*



The explosion shattered fume hood sash windows and knocked over equipment.

Credit: Honolulu Fire Department

The University of Hawaii faces a total \$115,500 fine for 15 workplace safety violations after a laboratory explosion in March on the university's Manoa campus. Postdoctoral researcher Thea Ekins-Coward, who worked for the Hawaii Natural Energy Institute, lost one of her arms in the explosion.

Ekins-Coward was preparing a gas mixture of 55% hydrogen, 38% oxygen, and 7% carbon dioxide when an electrostatic discharge likely ignited the mixture, according to an investigation report issued in July by the University of California Center for Laboratory Safety. The gas mixture was to be used to feed bacteria to produce biofuels and bioplastics. The gases were combined in a 49-L steel tank designed for compressed air and not electrically grounded.

The safety violations cited by the Hawaii Occupational Safety & Health Division (HIOSH) include failing to do the following: reduce employee exposure to potential explosion and fire hazards, ensure safety practices were followed, perform periodic inspections to identify hazards, ensure employees wore appropriate personal protective equipment, make use of standard operating procedures, and require suitable exits from the laboratory.

HIOSH labeled all 15 violations as “serious” and assessed the maximum state penalty of \$7,700 to each. The university must fix the violations by Oct. 21.

The university “will be requesting an informal conference with HIOSH to clarify the citations and discuss adjustments of the citations, as provided for in the HIOSH citations process,” according to a statement from the university. “Safety officers and leadership have been working diligently to further strengthen the culture of safety on the Manoa campus and foster an environment where hazard recognition and risk assessment are the standard of care for all activities,” the statement adds.

Both the Center for Laboratory Safety report and HIOSH findings show that the incident was avoidable, says Ekins-Coward's attorney, Claire Y. Choo of the firm Danko Meredith. She and Ekins-Coward are evaluating whether to file a lawsuit against the university, Choo says.

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University of Hawaii workplace safety violations identified by HIOSH