State fines UCLA in fatal lab fire

Cal/OSHA cites safety lapses and lack of training in imposing $31,875 penalty.
By Kim Christensen

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State regulators on Monday fined UCLA more than $31,000 for three "serious" violations of workplace safety laws in the fatal burning of a staff research assistant in a Dec. 29 chemistry lab fire.

The findings by the California Division of Occupational Safety and Health concluded that Sheharbano "Sheri" Sangji, 23, had not been properly trained and was not wearing protective clothing when an experiment exploded, spreading second- and third-degree burns over 43% of her body. She died 18 days later.

Cal/OSHA also cited UCLA for not addressing deficiencies noted in an internal safety inspection two months before the fatal fire in professor Patrick Harran's organic chemistry laboratory, including a finding that workers were not wearing lab coats.

The 10-page report, which contained scant detail of the Cal/OSHA investigation, left many questions unanswered about the lab's protocols, equipment and supervision, said Sangji's sister, Naveen, a Harvard medical student.

"This report sheds very little light on the incident. Sheri went to work that day and never got the chance to come home," she said. "She suffered agonizing injuries, and these . . . pages do not explain what happened or how it happened."

Cal/OSHA officials said the UCLA fine was the largest among seven recent cases involving accidents at academic research labs or those in the chemical and biotechnology industries.

Fines in the six previous cases, which included serious injuries but not fatalities, ranged from $1,200 to $19,135.

"The important point to make here is that these penalties are not designed to compensate for injury or loss of life," said Dean Fryer, a Cal/OSHA spokesman, explaining that the fines merely address the civil violations of workplace regulations.

As in any accident resulting in death, Fryer said, Cal/OSHA will prepare an additional report to present to the Los Angeles County district attorney for consideration of criminal prosecution. Cal/OSHA as a matter of routine does not contact the district attorney before civil penalties are assessed.
UCLA officials, who ordered a comprehensive review of lab safety after Sangji died, said they would not appeal the fines.

New measures in place or in the works include increased inspections, a shortened time span for correcting serious violations and the purchase of flame-resistant lab coats.

"Although substantial progress has already been made, we will continue to thoroughly monitor and assess our lab training and safety protocols as an integral component of our daily operations," Chancellor Gene Block said in a statement. "The Cal/OSHA report will provide critical assistance with these ongoing efforts."

Sangji was transferring about two ounces of t-butyl lithium from one sealed container to another when a plastic syringe came apart in her hands, splashing her with a chemical compound that ignites instantly when exposed to air.

The $31,875 fine issued Monday included $18,000 for the fact that she wasn't wearing a lab coat, which might have kept her highly flammable sweater from catching fire.

Serious violations carry a maximum fine of $25,000 and a base penalty of $18,000, which can be increased or reduced based on the circumstances.

Born and raised in Pakistan, Sangji graduated in 2008 from Pomona College in Claremont with plans to become a lawyer. While applying to law schools, she took a $46,000-a-year job in October in a lab run by Harran, a researcher with a rising reputation in organic chemistry.

A former member of the faculty at University of Texas Southwestern Medical Center, he joined the UCLA faculty in July as the first Donald J. Cram Chair in Organic Chemistry, according to his biography on UCLA's website.

A day after the fire, Harran told a UCLA investigator that a syringe "was the appropriate method" for transferring t-butyl lithium, and that Sangji had been trained how to do it. But Harran did not know when that training occurred and had no record of it, as required by Cal/OSHA and UCLA lab safety standards.

Two months before the fire, an annual safety inspection conducted Oct. 30 uncovered more than two dozen deficiencies in Harran's four labs, including the one where Sangji worked.

Among other things, inspectors found excessive amounts of flammable liquids, and workers who lacked the required lab coats and other required safety gear, such as rubber gloves and eye protection.

Some of the fixes were made immediately, Harran later told colleagues in e-mails, but others were delayed because the lab was in the process of moving to another floor and was to have been reinspected afterward.

A campus safety official agreed to the delayed reinspection, according to UCLA records reviewed by The Times.

In a statement Monday, Harran said that he and his students "deeply mourn the death of our friend Sheri Sangji," describing her as exceptionally gifted.

He also said that although it is important to develop a culture of lab safety, the inspection and training records that have garnered scrutiny since Sangji's death had little relation to the accident.

"Sheri was an experienced chemist and published researcher who exuded confidence and had performed this experiment before in my lab," he said.

"However, it seems evident, based on mistakes investigators tell us were made that day, I underestimated her understanding of the care necessary when working with such materials."

kim.christensen@latimes.com
Statement of Patrick Harran

UCLA's Donald J. and Jane M. Cram Professor of Organic Chemistry.

My students and I deeply mourn the death of our friend Sheri Sangji, and we realize our pain cannot possibly compare with the anguish felt by her family. She was an exceptionally gifted young woman with a bright future ahead, and her loss is truly tragic.

Since Sheri's death, attention has focused on inspection and training records. These protocols are very important in developing and documenting a culture of safety, but in this case they are largely unrelated to the accident of Dec. 29, 2008. Sheri was an experienced chemist and published researcher who exuded confidence and had performed this experiment before in my lab. Sheri had previous experience handling pyrophorics, chemicals that burn upon exposure to air, even before she arrived at UCLA. Her most recent position prior to joining the group involved "scale-up process safety." However, it seems evident, based on mistakes investigators tell us were made that day, I underestimated her understanding of the care necessary when working with such materials.

Sheri's death resulted from a tragic accident. The California Division of Occupational Safety and Health has found no willful violations in its report. Throughout my career, I have strived to create a culture of safety. I am haunted by memories of this tragedy and wish that nothing like it happens again – in my lab or any other. In continuing our research, I go forward with a heavy heart in remembrance of Sheri and with a rededication to safety. I will also work tirelessly to achieve Chancellor Block's goal of making UCLA the leader in safe laboratory practices.