

## Frequently Asked Questions (FAQs) on Hazard Communication Standard and its Applicability to Laboratories.

This document is to provide some further guidance to the campuses in understanding the differences between the Laboratory Standard and the Hazard Communication (*or HazCom*) standard. Campus EH&S staff should be able to clearly articulate which standard applies to a given work environment at their campus. The intent of these FAQs is to develop a common understanding of the applicability of these standards across the campuses.

### **Q1. Does the Hazard Communication (HazCom) standard apply to laboratories at the University of California?**

A1. Generally speaking, no. The HazCom standard would only apply to a limited number of University of California laboratories that do not qualify for the regulatory exception for laboratories.

Universities petitioned FedOSHA in the late 1980's to be exempted from the federal Hazard Communication Standard (29 CFR 1910.1200). FedOSHA determined that "laboratories typically differ from industrial operations in their use and handling of hazardous chemical and that a different approach is warranted to protect workers."<sup>1</sup> For this reason a separate Laboratory Standard (29 CFR 1910.1450) was created. California has adopted similar, though not identical, versions of the HazCom (8 CCR 5194) and Laboratory (8 CCR 5191) Standards.

Most University of California laboratories would meet the criteria (discussed below) to be "excepted" from the HazCom Standard. For these laboratories covered under the Laboratory Standard, the full panoply of requirements of the HazCom Standard would not apply.<sup>2</sup>

### **Q2. Which facilities are deemed "laboratories" for purposes of the Laboratory Standard?**

A2. A "laboratory" is a facility where "laboratory use of hazardous chemicals" occurs. According to the regulations, "laboratory use of hazardous chemicals" occurs when all of the following conditions are met<sup>3</sup>:

- Chemical manipulations are carried out on a "laboratory scale" (i.e., small, non-commercial scale); and
- Multiple chemicals or chemical procedures are used; and
- The procedures are neither part of nor simulate a production process; and
- Protective laboratory practices and equipment are available and in common use industry-wide to minimize the potential for employee exposure to hazardous chemicals.

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<sup>1</sup> 55 FR 3300

<sup>2</sup> [http://www.dir.ca.gov/dosh/dosh\\_publications/hazcom.pdf](http://www.dir.ca.gov/dosh/dosh_publications/hazcom.pdf);  
[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=22745](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22745)

<sup>3</sup> Adapted from  
[https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=20190](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=20190)

**Q3. Which laboratories would be subject to the Hazard Communication Standard?**

A3. Laboratories that “primarily provide quality control analyses for manufacturing processes or that produce hazardous substances for commercial purposes.”<sup>4</sup> (Herein referred to as “*manufacturing or commercial labs*”) Examples at UC may include quality control labs in agriculture operations that produce a product for sale (wine, beer, olive oil, etc.). Laboratories usually labeled “core” laboratories that produce research materials, kits, viral vectors, florescent protein constructs that are commercially sold outside the University may also be subject to the HazCom Standard. Core laboratories that produce research materials for use only within UC may also fall under this regulation. Such laboratories should be evaluated with the help of legal counsel.

**Q4. Which laboratories would NOT be subject to the Hazard Communication Standard?**

A4. Laboratories that are “under the direct supervision and regular observation of an individual who has knowledge of the physical hazards, health hazards, and emergency procedures associated with the use of the particular hazardous chemicals involved, and who conveys this knowledge to employees in terms of safe work practices” are excepted from the HazCom Standard.<sup>5</sup> Herein referred to as “*excepted labs.*”) Generally speaking this describes most of the research and teaching laboratories at UC. Such excepted laboratories would then be subject to the Laboratory Standard.

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<sup>4</sup> 8 CCR 5194(b)(3). Note that facilities that produce hazardous substances for commercial purposes would not likely qualify as “laboratories” in any event.

<sup>5</sup> 8 CCR 5194(b)(3).

**Q5. Can a research laboratory qualify as “under direct supervision” when the Principal Investigator rarely is physically present in the research laboratory?**

A5. The laboratory HazCom exception does not require that the PI specifically be designated as the person who has direct supervision and knowledge and who would convey risks and safe work practices. However, there would have to be an identified person performing this role. This person could be a qualified Laboratory Manager, Staff Research Associate (SRA), the designated in-lab Laboratory Safety Officer, or other appropriate individual. This person must have knowledge of the hazards and procedures associated with the use of the particular hazardous substances and must be performing both direct supervision and regular observation of an individual.

**Q6. Do any requirements of the HazCom Standard apply to the excepted laboratories subject to the Laboratory Standard?**

A6. Both the Laboratory<sup>6</sup> and the HazCom<sup>7</sup> Standards require excepted laboratories to ensure that labels of incoming containers of hazardous substances are not removed or defaced, and to maintain any material safety data sheets that are received with incoming shipments of hazardous substances and ensure that they are readily available to laboratory employees.

**Q7. Why is it difficult for an excepted laboratory to comply with the Hazard Communication Standard?**

A7. Primarily because of the labeling and Safety Data Sheet (SDS) requirements. The more stringent HazCom standard requires “each container” in the workplace be labeled with the HazCom label elements (names, pictograms, signal words, hazard statements) or the use an equivalent labeling system (e.g. NFPA 704, HMIS). In addition the HazCom standard requires all hazardous substances, including solutions and novel substances to have an SDS rather than just the “incoming shipments” as required by the Lab Standard. This would be very onerous even for small laboratories that typically possess numerous sample containers, test tubes, beakers, flasks, and dishes.

**Q8. Does the UC Regents Settlement Agreement expressly require all laboratories in the departments of Chemistry and Biochemistry to comply with all of the HazCom Standard (8 CCR 5194)?**

A8. No. The UC Settlement Agreement does not extend the applicability of the §5194 to “exempted laboratories.” The settlement agreement requires that we comply with the applicable sections of Title 8. For laboratories that are excepted from the HazCom standard by the terms of 8 CCR 5194(b)(3)<sup>8</sup>, only

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<sup>6</sup> 8 CCR 5191(h)(1).

<sup>7</sup> 8 CCR 5194(b)(3).

<sup>8</sup> a.k.a. “excepted laboratories”

8 CCR 5194 f(6)<sup>9</sup> and (g) are applicable, as described in Q6/A6 above. The UC Regents Agreement, as well as the HazCom standard itself, requires compliance with §5194 for “manufacturing or commercial laboratories” (as described in Q3 above)

**Q9. What previous guidance did UCOP issue in regards to including settlement covered laboratories that are subject to the HazCom Standard (i.e. not excepted from) in the list of laboratory facilities?**

A9. See Q10 from the Frequently Asked Questions (FAQ) on UC Settlement, copied here

***Q10. Should we be including in our list of laboratory facilities Department of Chemistry and Biochemistry, service space such as glassblowing, metalworking etc.?***

A10. No, these specialist support activities may be viewed as limited production basis shop. If these areas are separate rooms, even if assigned to the Departments of Chemistry and/or Biochemistry, they may be omitted from the list of laboratory facilities. Any use of chemicals in these spaces would be regulated under other Cal/OSHA standards, namely the more stringent Hazard Communication standard (8 CCR 5194). Spaces where both shop equipment (e.g. presses, saws, lathes etc.) and traditional wet lab activities coexist together should be included in the list of all laboratory facilities (obligation A1).

**Q10. Do I have to train excepted laboratory researchers with GHS under the HazCom standard?**

A10. No, not if the laboratory is subject to the Lab Standard. The GHS training requirements with the first implementation deadline of 12/31/2013 are found under 5194(h) and as such are not applicable to excepted laboratories. That said, the new and required systemwide Laboratory Safety Fundamentals training course, which needs to be implemented by all campus by 10/31/2013, does cover the GHS pictograms (slide 39 & 86), SDS (slide 44 & 81), and HazCom. (slide 81). There are additional links to the information on SDS & HazCom, however, the course does not go in depth on each.

**Q11. What guidance is there in Prudent Practices?**

A11. The latest (2011) edition of *Prudent Practices in the Laboratory* includes the following in section 11.A.2.3 Laboratory Standard Versus Hazard Communication Standard:

As noted above, the Laboratory Standard is intended, with limited exceptions, to be the primary OSHA standard governing employees who routinely work in laboratories. The Hazard Communication Standard, on the other hand, applies to all non-laboratory operations “where chemicals are either used, distributed or are produced for use or distribution.”

<sup>9</sup> The current edition references subsection(f)(1) but this is likely a typographical error. See [http://www.dir.ca.gov/dosh/doshreg/GHS\\_Advisory\\_Committee\\_documents/K%20Smith%20comment%20on%20apparent%20error%204%2010%2013.pdf#zoom=100](http://www.dir.ca.gov/dosh/doshreg/GHS_Advisory_Committee_documents/K%20Smith%20comment%20on%20apparent%20error%204%2010%2013.pdf#zoom=100)

The obvious difficulty is that workers in maintenance shops, even if in a laboratory building, would be covered by the Hazard Communication Standard, not the Laboratory Standard. The requirements of the Hazard Communication Standard are, in certain respects, more demanding than those of the Laboratory Standard. For example, the Hazard Communication Standard requires that each container of hazardous chemicals used by the employee be labeled clearly with the identity of the chemical and appropriate hazard warnings, whereas the Laboratory Standard requires only that employers “ensure that labels on incoming containers of hazardous chemicals are not removed or defaced.”

The Hazard Communication Standard further requires that copies of material safety data sheets (MSDSs) for each hazardous chemical be readily accessible to employees, whereas the Laboratory Standard requires only that employers “maintain MSDSs that are received with incoming shipments, and ensure that they are readily accessible. . . .”

Custodial and maintenance staff who service the laboratory continue to be governed by the Hazard Communication Standard and other OSHA standards, which set forth the information, training, and health and safety protections required to be provided to non-laboratory employees.

Many organizations, faced with the difficulty of designing EHS programs that meet both the requirements of the Laboratory Standard and the requirements of the Hazard Communication Standard, have opted to follow the requirements of the Hazard Communication Standard for all workplaces, laboratory and non-laboratory, while additionally adopting and implementing the Chemical Hygiene Plan requirements of the Laboratory Standard as they apply to laboratories. Careful comparison of the two standards should be made when designing an EHS program.

**Q12. Why is it important to understand what standard applies to a specific work environment?**

A12. It is critical that EH&S know which standard is applicable for a given work environment. Since the requirements differ greatly from the Lab standard and the HazCom standard, determining which standard applies will establish the appropriate requirements for that workplace. EH&S should be able to articulate the applicable requirements to both the supervisor and employees, as well as any visiting Cal/OHSA inspector so they know by which standard to evaluate the workplace. It is important to note that once the applicable standard is determined, then all the applicable requirements of that said standard must be complied with, not just selective sections of one or both standards.