

INTRODUCTION

Purpose

Stanford University has a continuing need to modernize and upgrade its facilities. The resulting construction projects often have significant health and safety requirements due to regulatory oversight. Since these requirements can impact the design of a project, Environmental Health and Safety (EH&S) prepared this EH&S Laboratory Design Guide to aid the campus community with planning and design issues. EH&S believes that the Guide, in conjunction with EH&S's plan review and consultation, improves design efficiency and minimizes changes.

Application

The Guide is a resource document for use by faculty, staff, and design professionals for use during the planning and early design phases of a project. The Guide applies to construction projects for all Stanford University facilities, including leased properties.

Format of Guide

The Guide is formatted to address laboratory design issues pertinent to *General Laboratories* (e.g., chemical laboratories) in Section 1, with additional requirements for *Radioactive Materials Laboratories* and *Biosafety Level 2 Laboratories* presented in Sections 2 and 3 respectively.

Within the sections, specific design criteria are provided. Comments are included under the specific design criterion to give the user the rationale behind the design feature.

References

References include regulations (e.g., Cal/OSHA and Fire Code), consensus standards (e.g., ANSI/ASHRAE), and good practices. Good practices stem from industry standards and/or the judgement/knowledge of Stanford University's EH&S professionals.

Design criteria are designated in the following ways:

- Shall: Criterion is mandated by applicable regulation(s).
 - *The user of the Guide is required to include the design feature.*
- Must: Criterion is based on well-established consensus standards/guidelines. "Must" is used to reflect a Stanford requirement, although not required by a regulation.
 - *The user of the Guide is required to include the design feature.*
- Should: Criterion is advisory in nature, based on good engineering and safety practices.
 - *It is left to the discretion of the user of the Guide to include the design feature.*

Limitations of the Guide

The EH&S Laboratory Design Guide is not "all inclusive." It does not cover all regulatory issues nor does it cover all design situations. It is important to note that *use practices* must be considered during the design process, as they can directly influence how the laboratory will be designed (e.g., how hazardous materials are used impacts how they are stored, which is a design issue). In all cases, EH&S should be consulted on questions regarding health, safety, and environment.

ACKNOWLEDGEMENT

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