

Laboratory Safety Design Guide

INTRODUCTION

Contents

- Section 1 – General Requirements for Laboratories
- Section 2 – Environmental Requirements
- Section 3 – Laboratory Ventilation
- Section 4 – Emergency Eyewash and Safety Shower Equipment
- Section 5 – Compressed Gas and Cryogenic Components and Systems
- Section 6 – Hazardous Materials Storage Cabinets
- Section 7 – Biosafety Laboratories
- Section 8 – Fire Safety
- Section 9 – Additional Requirements for Radioactive Materials Laboratories
- Section 10 – Additional Requirements for Laboratories with Irradiators and/or Radiation-Producing Machines
- Section 11 – Additional Requirements for Laboratories using Non-Ionizing Radiation Sources Including Lasers
- Appendix A – Additional Fume Hood Exhaust Criteria for Facilities Not Owned by the University of Washington
- Appendix B – General Hazardous Materials Provisions
- Appendix C – Laboratory Decommissioning

INTRODUCTION

The construction of laboratory facilities requires oversight. Regulatory requirements must be addressed and good practice must be considered. Laboratory facilities have architectural, space planning, HVAC, environmental control, and fire/life safety requirements not generally found in most types of construction.

UW Environmental Health & Safety Department (EH&S) has prepared and will maintain this guide to aid the campus community and project design teams with planning and design issues. The intent of this guide is to improve design efficiency and minimize changes in conjunction with EH&S plan review and consultation services.

The guide is a resource document to be used by design professionals during the planning, design and commissioning phases of a project. It is applicable to all facilities occupied by UW employees with an emphasis on those facilities that will be used as laboratory buildings, laboratory units, and laboratory work areas in which hazardous materials are used, handled and stored. The criterion in this guide represents the minimum requirement; more stringent requirements may be necessary depending on the specific laboratory and the type of research being completed.

This guide applies to both leased and owned buildings. Supplemental requirements for UW owned and operated buildings are also noted herein and in the UW Facilities Services Design Information Guide maintained by Campus Engineering and Operations.