

WKU Laboratory Inspection Reference Guide

Documentation

Spill & Emergency Planning

Equipment & Physical Hazards Safety

Personal Protection Clothing, Equipment &
Engineering Controls

General Laboratory Safety

Chemical Safety

Biological Safety

Ionizing & Non-Ionizing Radiation Safety

Compressed & Cryogenic Gas Safety

Waste Management

Animal Use & Care



WKU LABORATORY SAFETY

Documentation

Chemical Safety
Data Sheets (SDS)

29 CFR 1910.1200



Spill & Emergency Planning

Emergency Procedures & Phone Numbers	29 CFR 1910.1450 (2) 29 CFR 1910.1450 H
First Aid Materials	29 CFR 1910.151(b)
Spill Cleanup Materials	29 CFR 1910.1450 (8)
Safety Shower & Eye Wash Accessible & Unobstructed	29 CFR 1910.151(c) ANSI Z358.1
Safety Shower Tested & Documented	29 CFR 1910.151(c) ANSI Z358.1
Eye Wash Operable	29 CFR 1910.151(c) ANSI Z358.1
Fire Alarm Pull Stations, Strobes, Speakers, & Fire Extinguishers	29 CFR 1910.157(c)(1) NFPA 1 2018 Section 13.1.5
Storage at Least 18" Below Sprinkler Head	29 CFR 1910.159(c)(10)



Spill & Emergency Planning

Broken Glass Container

Prudent Practices in the Laboratory Section 4.E.9

Dustpan/Broom

Prudent Practices in the Laboratory Section 6.C.6

Exits Clearly Marked & Unobstructed

29 CFR 1910.36(g)(2)



Equipment & Physical Hazards

Equipment Safety Signs
Posted & in Good
Condition

CFR 1910.145

Guards & Shields in
Place & Secured

29 CFR 1910.215

Hazardous Pieces of
Machinery Mounted or
Secured

29 CFR 1910.212(b)

Equipment in Good
Repair

OSHA

Electrical Panels
Unobstructed

NFPA 70

Electrical Cords in
Good Condition

29 CFR 1910.334(a)(2)(i)

Power Strips &
Extension Cords
Daisy-Chained

29 CFR 1910.303(b)(2)



Equipment & Physical Hazards

Shut-Offs/Disconnects

NFPA 45 2019 Section
10.2.3.4
29 CFR 1910.213(b)(1)

Proper Personal
Protective Equipment
Available for Equipment
Operators

29 CFR 1910.132(a)

Access to Equipment
Not Restricted

29 CFR 1910.303(g)(1)



Personal Protection Clothing, Equipment & Engineering Controls

Required Personal Protective Equipment Posted 29 CFR 1910.132 (d) (1)
29 CFR 1910.132(d)(1)(i)
29 CFR 1910.132(d)(1)(ii)

Appropriate Gloves Available 29 CFR 1910.1450

Goggles, Face Shields, are of Appropriate Type 29 CFR 1910.1450

Respirators Available 29 CFR 1910. 134
29 CFR 1910.134(a)(1)
29 CFR 1910.134(a)(2)

Respirator Training, Fit Test & Medical Evaluation 29 CFR 1910.134(e)(1)
29 CFR 1910.134(f)



Personal Protection Clothing, Equipment & Engineering Controls

Respirators Cleaned,
Stored, & Inspected
Regularly

29 CFR 1910.134(h)(1)(i)
29 CFR 1910.134(h)(2)(i)
29 CFR 1910.134(h)(3)(i)
29 CFR 1910.134(h)(3)(i)(A)
29 CFR 1910.134(h)(3)(ii)(B)
29 CFR 1910.134(h)(3)(ii)
29 CFR 1910.134(h)(3)(ii)(A)
29 CFR 1910.134(h)(3)(ii)(B)

Chemical Hood

Prudent Practices in the
Laboratory 6.C.2.1

Chemical Hood Free
of Clutter

Prudent Practices in the
Laboratory 6.C.2.4.1
29 CFR 1910.1450 App A
Section D 2 Chemical
Storage (k)

Chemical hood
inspected

Prudent Practices in the
Laboratory 9.C.2.4



Personal Protection Clothing, Equipment & Engineering Controls

Local Exhaust
Devices Surveyed

Prudent Practices in the
Laboratory

Biological Safety
Cabinet

Biosafety in Microbiological
& Biomedical Laboratories

Biological Safety
Cabinet Free of
Clutter & Surfaces
Decontaminated

Biosafety in Microbiological
& Biomedical Laboratories

Biological Safety
Cabinet Certified

29 CFR 1910.1030(e)(2)(iii)(B)



General Laboratory Safety

Smoking, Eating, & Drinking Prohibited in Lab

29 CFR 1910.141 (g)(2)
29 CFR 1910.141(a)(2)

Lab is Maintained Secure

Prudent Practices in the Laboratory

Special Security Measures Followed for Controlled Substances

21 CFR 1301.72

Appropriate Warning Signs Posted Near Lab Entrance

NFPA 45, 2019. Section 13.2.1

29 CFR 1910.1450 App A D Chemical Hygiene Plan 7. Signs

Unobstructed Aisles Maintained

29 CFR 1910.22(c)
29 CFR 1926.250(a)(3)
29 CFR 1910.36(g)(2)
29 CFR 1910.37 Means of Egress (a)(3)



General Laboratory Safety

Shelves Have Seismic Restraints

CFR 1910.1450 App A -
Chemical Hygiene/
Chemical Storage

Laboratory Refrigerators, Ice Makers, & Freezers Clearly Labeled "Not for Storage of Food for Human Consumption"

Prudent Practices in the Laboratory 2011 7.C.3
Refrigerators & Freezers

No Storage of Food or Drink in Refrigerators, Unless Dedicated for Such & Clearly Labeled

29 CFR 1910.1450 App A
Section E 1 (m)



Chemical Safety

Appropriate Labels are Found on All Chemical Containers

29 CFR 1910.1450 App A Section D 2 chemical storage (c)

Containers are in Good Condition & Properly Closed When Not in Use

29 CFR 1910.1450 (h)(1)(i)

Containers Properly Segregated by Hazard Class

NFPA 45, 2019 Section 8.3.4.2
29 CFR 1910.1450 App A Section D 2 chemical storage

Flammables Liquids Requiring Refrigeration Stored in Either Explosion Proof or Flammable Resistant Refrigerators & Freezers

29 CFR 1910.1450 App A section D 2 chemical storage



Chemical Safety

Ignition Sources
Avoided When
Using/Storing
Flammables

NFPA 45 2019 Section
8.3.4.2

Corrosives Stored in
Acid Cabinets or Other
Appropriate Cabinets

NFPA 45, 2019. Section
8.3.4.2
29 CFR 1910.1450 App A
Section D 2 chemical stor-
age (a)

Peroxide Formers
Properly Labeled/
Dated

29 CFR 1910.1450 App A
section D 2 chemical stor-
age (g)
NFPA 45 2011

Large Containers (4L or
>) Stored Near the Floor

From Prudent Practices in
the Laboratory

Bottle Carriers or Carts
Available for
Transporting Hazardous
Chemicals

Prudent Practices in the
Laboratory 2011 2.D.5
Transporting, Transferring,
& Shipping Chemicals



Biological Safety

Biohazard Signs Posted
in Labs Handling
Infectious Materials

BMBL 5th ed, BL1 Section
IV-A-9

Disinfectants on Hand
for Sanitizing Bench
Tops & Treating Spills?

BMBL 5th ed, BL1 Section
IV-A-7

Certified Biological
Safety Cabinet(s) with
Operable Sash

BMBL 5th ed. Appendix A
Section VII - Certification
of BSCs

Safety Caps/Cups or
Aerosol-Tight Rotor Lids
are Used When
Centrifuging Infectious
Materials

BMBL 5th ed, Section IV,
A 6

Aerosolizing Equipment
is Enclosed or
Contained in a Biosafety
Cabinet or Other
Suitable Containment

BMBL 5th ed, Section IV,
Biosafety Level 2



Biological Safety

Operable sink available,
with soap and paper
towels near by

BMBL 5th ed, BL1
Section IV-A-2: Section
IV-D-2

Biosafety cabinets
contain bunsen burners

BMBL

Bunsen burner hoses of
appropriate materials
and in good condition

NFPA 45, 2019 Section
11.2.6.1 (2)



Ionizing & Non-Ionizing Radiation

Appropriate Meters for
Radioactive Material
Used & Calibrated

902 KAR 100:019 Section
12 Surveys & Monitoring

Radiation Workers
Provided Personal
Monitoring When
Required

902 KAR 100:019 Section
12 Surveys & Monitoring

Radioactive Materials
Secured/Locked Against
Unauthorized Access

902 KAR 100:019 Section
14 Control of Access to
High Radiation Areas

Lasers & Laser Users
Registered with the LSO

ANSI Z136.1 A.3.1 c) f)

Personal Protective
Equipment & Shielding

ANSI Z136.1 4.4.4.1
General
ANSI Z136.1 4.4.4.1.2
Eye Protection



Ionizing & Non-Ionizing Radiation

Laser Curtaining Have
Fire-Retardant Tags

ANSI Z136.1 4.4.2.5
Laser Protective Barriers
and Curtains

Laser Hazard Warning
Signage Posted

ANSI Z136.1 4.6.6: Laser
equipment Labels

Signage/Signal on
Outside of Room for
Laser On/Off

ANSI Z136.1 4.4.2.8

Interlock for Automatic
Shut-Off when Door
Opens

ANSI Z136.1 4.4.2.10.3



Compressed & Cryogenic Gas

Regulators Always Used,
Proper Regulators Used
for Type Gas, Pressure
Bled when Not in Use

NFPA 45, 2019 Section
10.1.6.2



Waste Management

Wastes Are Not Discarded Via Trash or Drain Disposal Unless Specifically Approved

40 CFR 262.11
40 CFR 261.2

Satellite Accumulation Area (SAA) is Located at or Near Where Waste is Generated

40 CFR 262.15 Satellite Accumulation Area

SAA Storage Capacity Exceeded

40 CFR 262.15 Satellite Accumulation Area

Each Container is Marked with the Words "Hazardous Waste"

40 CFR 262.15
29 CFR 1910.1200

Each Container is Marked with Full Chemical Names Identifying the Contents

40 CFR 262.15
29 CFR 1910.1200



Waste Management

Waste Containers are Kept Closed Unless Adding Waste **40 CFR 262.15 (4)**

Sharps Wastes are Immediately Discarded into Proper Puncture Resistant Containers **29 CFR 1910.1030**

Sharps Containers are Available & Managed **29 CFR 1910.1030**

Biological Waste Liquids Decontaminated Prior to Drain Disposal **BMBL Section IV-A, 8**

Biological Waste is in Red Bags & Additional Bags are Available **BMBL Section IV-A, 8**



Biological Waste Solids
Discarded as Regulated &
Autoclaved or Disinfected
as Appropriate

BMBL Section IV-A, 8

Red Biological Waste
Bags are Marked "sterile"
After Autoclaved, Before
Disposing in Solid Waste
Stream

BMBL Section IV-A, 8

Radioactive Waste
Containers Properly
Labeled

**902 KAR 100: 021
Section 8**



Animal Use & Care

Live, Vertebrate
Animals
Used/Maintained in
Facility or Laboratory

NIH Appendix G-II-B-2-g

Protocols Available/
Stored/Posted

NIH Appendix G-II-B-2-g

