

74 What's New? 10

Updates to the 2023 NIH Chemical Hygiene Plan

Each year, the Chemical Hygiene Plan (CHP) is updated to reflect the most recent chemical safety information and policies. The updates ensure that the plan continues to serve as a valuable resource to the NIH laboratory research community.

[The full plan is available online.](#) This year's updates include:

❖ **New content:**

- Introduction: OSHA's definition of laboratories added; including laboratories in animal facilities
- Section II – Scope:
 - CHP contrasted with the Hazard Communication Program
 - Laboratories within animal facilities included in the scope of the CHP
- Section III – Responsibilities:
 - New responsibility: Division of Occupational Health and Safety communicates CHP updates to stakeholders
 - Division of Facilities Operations and Maintenance Facility Managers, maintenance personnel, and the Section Chief Shutdown Coordinator responsibilities updated
 - New responsibility: Office of Animal Care and Use notifies ACUCs of CHP updates
 - PI responsibility for documenting training clarified
 - Figures outlining responsibilities added
- Section V – Labels and Safety Data Sheets
 - Chemical pictogram figure added
 - Labelling requirements (full chemical name, expiration date) for laboratory prepared solutions added
 - Description of standard operating procedure and specific chemical hazard templates added
- Section VII – Control of Exposure to Hazardous Chemicals
 - Sentence stating that ductless fume hoods are not permitted at NIH added
 - Lab personnel responsibility for flushing eyewashes and Office of Research Facilities responsibility for flushing emergency safety showers clarified
 - New policy: maximum working stock of 500 mL for flammable chemicals
- Section X – Working with Particularly Hazardous Substances (PHS)
 - New policy: when a PHS will be used for the first time, the PI must notify their Safety Specialist of its use, perform a hazard analysis of the chemical, and will develop an SOP for using the chemical with the support of the Chemical Hygiene Officer (CHO) and safety specialist. Occupational Medical Services will be notified by the CHO if the chemical has antidotes or prophylaxis available to facilitate required medical services.
- Appendix B – Guidance for Identifying Particularly Hazardous Substances
 - New policy: Safety Specialist will assist with performing a hazard assessment for PHS and creating necessary signage
 - New policy: Chemical inventory must be updated upon transfer of PHS between laboratories
- Appendix D – Proper Storage of Chemicals in the Lab

- New policy added on when secondary containers must be fully labelled, including description of label components
- New policy: Chemical must be returned to storage when the researcher is longer working with it or when they will be away from it for an extended period
- New section describing appropriate response when chemical crystallization is observed
- New section describing administrative controls for peroxide formers
- New Appendix: Appendix E – Cryogenic Liquids Safety
- Appendix G – Glossary of Terms
 - “Major spill” replaced with “High-level hazard spill” and “Minor spill replaced with “Low-level hazard spill”.
 - High-level hazard spill: spills larger than 100 mL or spills of any volume of a PHS
 - Low-level hazard spill: spills less than or equal to 100 mL of a non-PHS
- Appendix H – Hazardous Material Spill Procedure
 - Emergency response for eye exposure and skin exposure updated (Safety Data Sheet guidance must be followed; contact lenses must be removed as soon as practical)
 - New policy: the fire department must be called for low-level hazard spills, and some spills must be cleaned up by the fire department
- New Appendix: Appendix N – Specific Chemical Hazard and Lab-specific SOP Templates
- New Appendix: Appendix O – Contact Information

❖ **New links:**

- Section III: [Occupational Medical Service, Division of Environmental Protection, Office of Animal Care and Use](#)
- Section V: [PubChem](#)
- Section X: [OSHA’s Laboratories website](#)
- Appendix A: [NFPA 30: Flammable and Combustible Liquids Code](#)
- Appendix A: [NFPA 45: Standard on Fire Protection for Laboratories Using Chemicals](#)
- Appendix A: [NFPA 55: Compressed Gases and Cryogenic Fluids Code](#)
- Appendix A: [NFPA 400: Hazardous Materials Code](#)
- Appendix D: [NIH NEMS Hazardous Waste Search Table](#)
- Multiple sections: [NIH Scientific Director Membership Roster](#)
- Multiple sections: [NIH Chemical Safety Guide](#)
- Multiple sections: [NIH IC Safety Specialists](#)
- Multiple sections: [NIH Guidance for the Selection of Laboratory Coats](#)
- Multiple sections: [Division of Facilities, Operations and Maintenance](#)

❖ **Enhancements:**

- Section III: Reorganized CHP stakeholders to reflect NIH hierarchy
- Appendix D: Revised Table 1. Chemical Segregation and Storage
 - Updated common chemical examples, incompatible chemical types, additional concerns and storage recommendations, and health statements
 - Added recommended PPE for work with each hazard class
 - Link to NIH Waste Disposal Guide added
 - Classes added: Water reactive chemicals, flammable aerosol cans, non-flammable corrosive-toxic aerosols
 - Classes removed: General stock chemicals
- Appendix D: Suggested Storage Time Limits for Common Peroxide Forming Compounds Table updated
- Appendix F: Removed information on selecting laboratory coats, and linked to the NIH guidance document
- Appendix H: Radioactive spills language updated
- Multiple sections: Added phone numbers for when calling from a cell phone
- Multiple sections: Organized controls to follow hierarchy of controls
- Multiple sections: Corrected typos and improved unclear language
- Multiple sections: Standardized punctuation at end of bullet points (semicolons)