# CheckList Annual Safety Refresher Topics

Choose safety refresher topics below based on relevance to your research and operations.

1. **Check** off the topics that you cover during your annual refresher training
2. **Document** attendance using the Site-Specific Training Record (SSTR)
3. **Submit the SSTR to EH&S** via the online form.

| ☑ | Topic | Description |
|---|---|---|
| ☐ | Biohazard Reporting Guidelines | Review the procedures and policies for reporting incidents, accidents, spills, and losses including incidents with recombinant DNA (r-DNA). Review Appendix G-II-B-2-k of the NIH Guidelines for Research Involving Recombinant or Synthetic Nucleic Acid Molecules April 2019 for more information. |
| ☐ | Biohazardous Substances Registration | Review the guidelines for using biological materials at USC and ensure there is an up to date Biohazard Use Authorization in iStar for the use of microorganisms, recombinant and/or synthetic nucleic acid molecules (DNA, RNA), toxins of biological origin, and chemicals used in biomedical research. |
| ☐ | Chemical Inventory Management | All labs are required to maintain an updated chemical inventory in accordance with Cal-OSHA and USC policies. An accurate chemical inventory is essential for emergency planning and incident response. USC will be transitioning from EHSA to *Risk & Safety Solutions* for chemical inventory management. EH&S will reach out to individual labs to assist with the transition. Learn more at: https://ehs.usc.edu/research/lab/chemical-inventory/ |
| ☐ | Controlled Substances | Per DEA regulation 1301.12, "A separate registration is required for each principal place of business or professional practice where controlled substances are stored, administered, or dispensed by a person." Therefore, the address on your DEA license should correspond to the address where you store and use controlled substances.<br>Ensure compliance with Federal and State regulations. Review requirements for security and storage, recordkeeping, handling, usage, and disposal. Furthermore, PIs must complete and submit a physical inventory of CS annually to USC EH&S (CS Form C).<br>Learn more at: https://ehs.usc.edu/research/cspc/ |
| ☐ | Driver Safety | Ensure any personnel driving a University Vehicle (including electric carts, golf carts, GEM vehicles, and Low Speed Vehicles) complete the Driving Defensively eLearning course on Trojan Learn. **Questions?** Contact injuryprevention@usc.edu. |
| ☐ | Emergency Equipment | Ensure all personnel are aware of the location of fire extinguishers, emergency showers, emergency eyewashes, drench hoses, first aid kits, spill kits, HF burn kits, and phenol first-aid kits. Inspect the items in first aid kits, HF burn kits, and phenol first aid kits and replace any which are past the expiration date. |

| ☑ | Topic | Description |
|---|---|---|
| ☐ | Emergency Response and Notification | Discuss reporting accidents and incidents that involve hazardous materials (including biologicals), and what to do following an exposure, including how and where to obtain medical attention, and what documentation is required. See Emergency Notification Protocol web page. |
| ☐ | Seek Medical Treatment | Review the following publications:<br>• USC Workers' Compensation Website<br>• USC EH&S Website<br>• Seeking Medical Treatment |
| ☐ | Engineered Sharps/ Safe Sharps Disposal | Use safety engineered sharps whenever possible. Emphasize that users don't recap needles, leave needles or other sharps unattended, or place any needles in trash or biohazard bag! Refer to EH&S' Needle/Syringe Selection and Usage webpage for more information. |
| ☐ | Fume Hood Use | Watch and discuss the video How to Properly Use and Operate a Fume Hood on the EH&S YouTube page. The video encourages learners to:<br>1. Check airflow - If zero airflow, place a service request with FPM,<br>2. Remove clutter - Overcrowding disrupts air flow and reduces fume hood efficiency,<br>3. Work at minimum practical sash height - Maximum working height is listed on yellow certification sticker,<br>4. Conduct work > 6 inches inside fume hood,<br>5. Close sash fully when not in use,<br>6. And, wear appropriate PPE (e.g. eye protection, lab coat, gloves) when using the fume hood. |
| ☐ | Fact Sheets | Select pertinent Fact Sheets for group discussion at https://ehs.usc.edu/fact-sheets/. |
| ☐ | HF Safety | Hydrofluoric acid can be fatal if improperly handled! If your lab uses hydrofluoric acid, review your HF Safety SOP, relevant safety information (http://www.calgonate.com/safety_info.php) and the EH&S Fact Sheet, and ensure your lab is outfitted with HF first-aid supplies (calcium gluconate gel). Please ensure all HF users are trained in safe use and handling. Training must be documented. |
| ☐ | Housekeeping | Stress good housekeeping practices. Remember, "A Clean Lab is a Safe Lab." |
| ☐ | Laboratory Hazard Assessment | Review all potential chemical, biological, radioactive and physical hazards used in your laboratory(s) and the tasks performed by lab staff that may cause exposure to these agents; use the Lab Hazard Assessment Tool (LHAT) - PDF or RSS - as a guide. Determine how to mitigate these hazards by employing protective measures in terms of engineering, administrative, and PPE controls. Volatile health hazardous chemicals and radioactive materials should only be handled inside a certified fume hood. Furthermore, review the USC PPE Standards and seek guidance from EH&S for specific activities or hazards. |
| ☐ | Laboratory Inspections | Review recent findings from EH&S safety inspections/audits of your laboratory(s) with your research group. If EH&S conducted your inspection via the *Risk & Safety Solutions* (RSS) web application, there is a RSS Inspect Responsible Party SOP available to assist. As a reminder, you may also develop a self-inspection plan and discuss ways of improving overall lab safety. |

| ☑ | Topic | Description |
|---|---|---|
| ☐ | No Food, Drink, or Chewing Gum in the Laboratory | Food, drinking water, powdered milk, cosmetics, smoking materials, etc. are not allowed in any laboratory containing hazardous materials (including at writing desks in labs) unless used specifically for research purposes. Food, beverages, water or cosmetics intended for research purposes must be individually labeled: "For Lab Use Only" or "For Research Use Only." Refer to Food and Drink in Laboratories Fact Sheet. |
| ☐ | Phenol Safety | If your lab uses phenol or phenol-containing reagents (e.g. phenol-chloroform, TRI Reagent®), please your Phenol Safety SOP and the Phenol Safety Fact Sheet. Ensure phenol users utilize appropriate PPE (as detailed in the Fact Sheet) and outfit the lab with a phenol first aid kit. |
| ☐ | Record Keeping | Review record-keeping procedures detailed on the EH&S webpage, such as Controlled Substance Request forms (CS Form G), Controlled Substance Use Authorization forms (CS Forms A, C), Controlled Substance Usage and Disposal Logs (CS Forms B, B-1), Radioactive Material Usage Records, Transfer of Radioactive Material forms, and Wipe Test results (if required). |
| ☐ | Safety Data Sheets (SDS) | Ensure personnel have access to and understand SDS for all hazardous materials in the lab. Include discussions on hazards, safe handling, PPE, emergency information, etc. A printed copy of a current SDS should be physically available in the vicinity of any work with materials of very high acute health hazard. Learn more at: http://ehs.usc.edu/research/lab/sds/. |
| ☐ | Security for Substances of Interest | Discuss your procedures for assuring that Radioactive Material, Select Agents, Controlled Substances, and highly acute toxicants are securely stored and security precautions are in place when used. |
| ☐ | Standard Operating Procedures (SOPs) | Develop, review, and train personnel on content present in the SOPs for hazardous materials, lab-specific operations, and specialized equipment. Review SOPs on an initial an annual basis for all lab personnel. NOTE: The PI and/or Lab Manager must retain training records for all internal training. |
| ☐ | Time-Sensitive Chemicals (Including Organic Peroxide Formers) | Ensure that all time-sensitive chemicals, including peroxide formers, are dated with "received date" and "date when opened." Time-sensitive chemicals shall be tested or disposed when they reach their maximum storage time. Consult the EH&S Time-Sensitive Chemicals webpage for comprehensive information and instructions. |
| ☐ | Waste Disposal | Review hazardous waste disposal procedures, including waste segregation, labeling, appropriate use/placement of containers, placing lids on bio-cans and table top containers when not in use, and record keeping. Only appropriate, properly labeled containers can be picked up. Chemical waste containers must be labeled with the official "Hazardous Waste" label, and the accumulation start date clearly marked. The label must also include: (a) composition (NO abbreviations or chemical formulae); (b) solid/liquid; (c) hazardous properties (e.g. flammable); (d) PI name; and (e) lab location. Review biohazardous and pathological waste disposal procedures, and sharps disposal.<br>Learn More:<br>• Hazardous Waste Disposal Guide Sheet: http://tiny.cc/usc-hzwst-disp-gs<br>• Hazardous Waste Labeling Guide Sheet: http://tiny.cc/usc-hazwaste-lblng<br>• Waste Pickup Request - http://tiny.cc/hazmat-pickup<br>◦ EHSA http://tiny.cc/ehsa-waste-PU<br>◦ RSS http://tiny.cc/usc-rss-WASTe-tutorial |

# CheckList Annual Bloodborne Pathogens (BBP) Refresher Training

The minimum required training topics for BBP are listed below. **BBP refresher training may also be completed online via Trojan Learn** or by registering for an instructor-led session via the USC EH&S Training Page. Additional training is required for employees of HIV, HBV, and HCV Research Laboratories. Questions? Contact EH&S at biosafety@usc.edu. More information:

- OSHA's Bloodborne Pathogens and Needlestick Prevention
- USC Bloodborne Pathogen Program

| ☑ | Topic | Description |
|---|---|---|
| ☐ | 1. An Accessible Copy of the BBP Standard | Inform personnel of where to find the Cal/OSHA Bloodborne Pathogens Standard and an explanation of its contents (www.dir.ca.gov/title8/5193.html). |
| ☐ | 2. Epidemiology and Symptoms | Explain general epidemiology and symptoms of bloodborne pathogens. |
| ☐ | 3. Modes of Transmission | Explain the modes of transmission of bloodborne pathogens. |
| ☐ | 4. Risk Assessment | Explain the appropriate methods to recognize tasks and other activities that may involve exposure to blood and other potentially infectious materials (OPIM). |
| ☐ | 5. Exposure Control Plan | Explain your lab's Exposure Control Plan and how employee(s) can obtain a copy of the written plan. Review what to do in case of exposure or spill. |
| ☐ | 6. Pathogen Safety Data Sheets (PSDS) | Review the PSDS for Human and Non-Human Primate Materials as well as any other pertinent PSDSs applicable to your lab. |
| ☐ | 7. Methods of Compliance | Explain the use and limitations of methods to prevent or reduce exposure, including appropriate engineering (engineered sharps, biosafety cabinets), administrative or work practice controls, and personal protective equipment (gloves, safety glasses). |
| ☐ | 8. Decontamination and Disposal | Review proper decontamination and disposal procedures. |
| ☐ | 9. Personal Protective Equipment (PPE) | Discuss selection, proper use, location, removal, handling, decontamination and disposal of personal protective equipment for work in your lab. |
| ☐ | 10. Hepatitis B Vaccination | Remind personnel about the Hepatitis B vaccine, its efficacy, safety, benefits of being vaccinated, and that it is provided free of charge to employees through the USC Medical Surveillance Program at (323) 442-2200 or biosafety@usc.edu. |
| ☐ | 11. Emergencies | Review emergency notification procedures as outlined on the Emergency Notification and Incident Reporting webpage. |
| ☐ | 12. Exposure Incident, Post-Exposure Evaluation, and Follow-Up | Explain exposure incident procedures, including how to report an incident, location of medical facilities, and that medical follow-up that will be available. Note: If a Sharp is involved, record the incident in the *For Needle Sticks Only* section of the Manager's Report of Incident Form. This is necessary for OSHA recordkeeping. |
| ☐ | 13. Signs and Labels | Explain all signs, labels, and/or color coding required in the lab. |
| ☐ | 14. Interactive Questions & Answers | Provide an opportunity for interactive questions and answers. |

# CheckList Radiation Safety Refresher Topics

A Radiation Safety Refresher is required annually for anyone working with radioactive materials (RAM). Review the topics below and check off the items that you cover with your lab staff. Upon completion, ensure that you: 1) **Document** attendance using the Site-Specific Training Record (SSTR); and, 2) **Submit the SSTR to EH&S** via the online form.

| ☑ | Topic | Description |
|---|---|---|
| ☐ | Laser Safety Requirements | If your lab uses Class 3B and Class 4 open laser setups, make sure lab doors are properly posted, all lab personnel are aware of lab-specific laser standard operating procedures and beam alignment procedures when applicable and have appropriate eye protection available. Lab should maintain copies of these procedures signed by lasers users. Learn more at: https://ehs.usc.edu/research/laser/ |
| ☐ | No Food, Drink, or Chewing Gum in the Laboratory | Automatic suspension of a radioactive materials permit can be enforced if evidence of food is found where radioactive materials are used. [Regulatory references: Cal-OSHA §3368; §5191 Appendix A; §5193 (d) (3) (B).] |
| ☐ | Radiation Contamination Control | Review the defined work areas in your lab that are required for radioactive materials; selection of appropriate instrumentation and survey methods; and the need for frequent monitoring, visual indication of area boundaries, and prompt decontamination and documentation of spills. **Each lab must document monthly contamination checks for all rooms on the Radiation Permit on EHSA.** Remind laboratory personnel that potentially contaminated items, including PPE and laboratory samples, are not permitted in offices. |
| ☐ | Radioactive Contamination Survey Instruments | Review the proper use of survey instruments (portable, LSC, gamma counters, etc.) to detect possible contamination, and the need to monitor hands with disposable gloves before, during and after handling radioactive material. |
| ☐ | Radioactive Material Inventory Control | Review your specified locations and procedures for radioactive material use/storage. Stress the requirement for accurate and timely entries in the online EHSA system and placing the inventory number, radionuclide, amount of activity and date on all stock vials, tubes, or on the box that the radionuclide is stored in. |
| ☐ | Radioactive Material Order | Review how to order radioactive materials using Workday. Instructions can be found on the USC EH&S Ordering Radioactive Materials (RAM) webpage. All deliveries must be made to the HSC EH&S Office at 2001 N. Soto St, SBA 329 Los Angeles, CA 90032. |
| ☐ | Radioactive Material Transfer | Discuss protocols for transfer(s) of radioactive material either to another campus location or to another institution. Note that this requires prior written approval by Radiation Safety. |
| ☐ | Radioactive Material Use Permit Changes | Discuss any changes or amendments to your Use Permit in the last 12 months (e.g., new research protocols; new authorized users; addition of new radionuclides; changes in possession or procedure limits, or authorized locations). |
| ☐ | Radioactive Monitoring Personal Dosimeters | Emphasize the proper use and care of personal dosimeters (Whole Body & Ring dosimeters). Review how to return dosimeters to Radiation Safety, how to report lost/damaged dosimeters, personnel changes, and any exposure concerns. Remind staff that if they are issued a personal dosimeter or finger ring, they must wear the dosimeter while they are working in the laboratory, even though they may not be using radioactive materials. More information at: https://ehs.usc.edu/research/rad/dosimeter/ |

USC University of Southern California

# SITE-SPECIFIC TRAINING RECORD

*Document any site-specific safety training sessions. Place a copy with your departmental training records.*

**Refresher Type** *Check all that apply*

Annual Lab Safety Refresher ☐ BBP Refresher ☐ Rad Safety Refresher ☐

**SOP Refresher Topics** *Check all that apply*

| | | | |
|---|---|---|---|
| Acute Toxicants ☐ | Carcinogens ☐ | Corrosives ☐ | Cryogens and Dry Ice ☐ |
| Flammables ☐ | Oxidants ☐ | Phenol ☐ | Reproductive Toxicants ☐ |
| RAM ☐ | PSDS ☐ | Other ☐ | |

**Training Details**

Video Conference (e.g., Zoom) ☐ In-Person ☐

PI Name Date

Trainer Name Date

Location (If applicable) Duration

I hereby certify that the information provided is correct to the best of my ability: ☐

Trainer Signature

| Name | Email | 10-Digit USC ID# |
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