

Science Safety Committee Meeting Minutes

June 3, 2020

Attendees

Tori Croom, *Instruction Support Technician, Biology*
Kimberly Cousins, *Department Chair, Chemistry*
Teo Crisanto, *Instruction Support Technician, Chemistry*
Courtney Traugh, *Instruction Support Technician, Chemistry*
Jose Salazar, *Instruction Support Technician, Chemistry*
David Maynard, *Department Chair, Geological Sciences (Co-Chair SSC)*
James Pelley, *Equipment Technician, College of Natural Sciences-Dean's Office*
Jennifer Alford, *Professor, Geography*
Brett Goforth, *Professor, Geography*
Lal Mian, *Professor, Health Science and Human Ecology*
Terri Burch, *Department Chair, Nursing*
Michael Gillespie, *Compliance Specialist, Office of Academic Research*
Javier Torner, *Department Chair, Physics*
Sara Callori, *Professor, Physics*
Beiwei Tu, *Executive Director, Risk Management*
Melisa Morrow, *Specialist, Risk Management*
Kathy Pierson, *Specialist, Environmental Health and Safety*
Benjamin Virzi, *Specialist, Environmental Health and Safety*
Rominna Valentine Ico, *Specialist, Environmental Health and Safety*
Patricia Aguilar, *Administrative Support Coordinator, Environmental Health and Safety*

Meeting Details:

Virtual meeting organized by: Rominna Valentine Ico

Meeting Start Time: 11:00 am

Meeting End Time: 12:45 pm

Minutes Recorded by Kathy Pierson

Enclosed: PowerPoint Presentation, IBC Biological Risk Assessment, Radiation Project Authorization, and Laser User Registration Form.

Training

Melisa Morrow, specialist for Risk Management was introduced as the Training Specialist to the committee. Melisa gave a presentation for training and how to create safety success by working with departments to better identify the types of training materials needed for laboratories and/or workshops.

EH&S currently uses two training systems, CSULearn for faculty/staff/volunteers and Student Learning Bridge for students. Beiwei Tu concluded with continued efforts to work with the

department for their training needs and creating a partnership program that can contribute to overall training compliance.

Campus Update

COVID-19 and Current Campus Operations

Beiwei Tu gives the committee a status update regarding Chancellor's Office announcement to go virtual for the Fall Semester, guidelines for COVID-19 are pending Chancellor's Office directive. Chancellor's office also to release training for COVID-19 for those classified as essential personnel and those returning to campus. Those returning to campus will need Chancellor's Office approval and well as met the guidelines outlined in the department safety plan.

Current campus email notification requires anyone coming to campus to wear a face mask and not come to campus if they feel ill or have come in contact with someone who has been sick. The campus will continue to encourage telecommuting when possible to minimize the number of people on campus.

Javier Torner inquired about research in summer and communication for student and faculty. Beiwei all communication will funnel through Academic Affair or for research through Institutional Research for the campus.

Javier Torner wanted to know if there would be training provided for COVID and if there was a timeline for returning to campus. Beiwei responded by notifying all committee members that COVID training will be provided by the Chancellor's Office, but it has not been finalized. Timeline for returning to campus will be dependent on how the COVID situation is unfolding and the guidelines for campus phasing back are.

Committee members inquired about the building use for employees and students and if there is a tracking system. Beiwei Tu to ask Admin and Finance Council once guidelines from the Chancellor's Office are finalized.

Committee Meeting Reconstructing

Beiwei Tu proposed a new campus-wide committee structure where all current campus safety committees report or have communication with the Risk and Safety Committee (R&SC) hosted by the Risk Management department. The goal is to accomplish more and hold some accountability for the safety of the campus community.

Each safety committee will undergo a charter and committee organization chart update, where the dean of their corresponding college is an executive sponsor. Dean of their college also plays a more active role by electing the co-chair of the safety committee and bringing any issues discussed in the committee to the attention of the college. Co-chairs of the committees are represented members of the R&SC that can bring updates and concerns to the campus committee for oversight and input.

Javier Torner wanted to know if the final decision would be made at the subcommittee level or at the committee level. If there is no resolution at the subcommittee level, then the issue will be addressed at the committee level.

Dave Maynard agreed that it would be better to have a more structured method of organization for the safety committee. Currently, committee meetings include invitees who are recommended to attend. The new system allows has required members to be a part of the committee as well as open lines of communications for the rest of the campus to solve issues presented at the R&SC.

Safety

Intro to Risk and Safety Solutions (RSS)

Anything that has the GHS (Globally Harmonized System) label is considered to be a chemical and should be inventoried for the area in which it is in use. Rominna Valentine shares what RSS does and how it can help display important safety precautions for those using them.

RSS can be accessed through the [MyCoyote](#) portal. Some key features RSS has is the ability to be used with a mobile device or anything that has internet and camera capability can be used for inventory chemicals. RSS can also view the timeline on how long the chemical has been in there or if it was moved from one location to another. It will also provide a good tracking system for any chemical container within a specific inventory and let you know if a container has been removed, added, or edited within the inventory.

One of the newest features include the use of “Hazard Door Signs,” the RSS software will use the chemical inventory created and provide a sign that can be used for emergency contact information and general hazard/precautionary notification before entering an area with chemicals. EH&S is looking to implement the use of “Hazard Door Signs” in both the Science and Arts departments that have chemicals associated with a control area.

Overall, the RSS software will provide a better understanding of the types of chemicals present throughout campus and it will help determine if the facility using those chemicals have the proper safety mechanisms in place.

Laser and X-Ray Registration

Kathy Pierson wanted to remind committee members that anyone wanting to purchase a laser or x-ray equipment needs to fill out a Registration form. Dosimetry is also available for those working with x-ray equipment.

Biosafety—Biological Committee Risk Assessment Worksheet

Kathy Pierson discussed the new Biological Committee Risk Assessment Worksheet that needs to be filled out if anyone is working with biologicals.

Waste

Hazardous Waste and Universal Waste Updates

With the campus moving to a new semester system changes for waste created is a concern. Benjamin Virzi has assured that waste pickups will still happen quarterly to comply with the local regulations.

Open Forum

Rominna Valentine asked committee attendees if there were any incidents or accidents that have occurred since the closure of the campus. The committee reported no incidents or accidents.

Closing Remarks

EH&S is available for consultative services or help Monday thru Friday virtually from 8 am to 5 pm. Committee Meeting adjourned, next meeting to be held in Fall 2020.

Science Safety Committee

June 3, 2020

11:00 am – 12:30 pm

Main Topics

EH&S Training

Melissa Morrow—Training and Learning Management Systems Specialist
Melissa.Morrow@csusb.edu

CSUSB WE DEFINE THE *Future*

Restructuring of Campus Safety Committees

Cal State San Bernardino

CSUSB WE DEFINE THE *Future*

Risk and Safety Solutions (RSS)

Implementation of Chemical Inventory and Hazard Door Signs

CSUSB WE DEFINE THE *Future*

Questions?

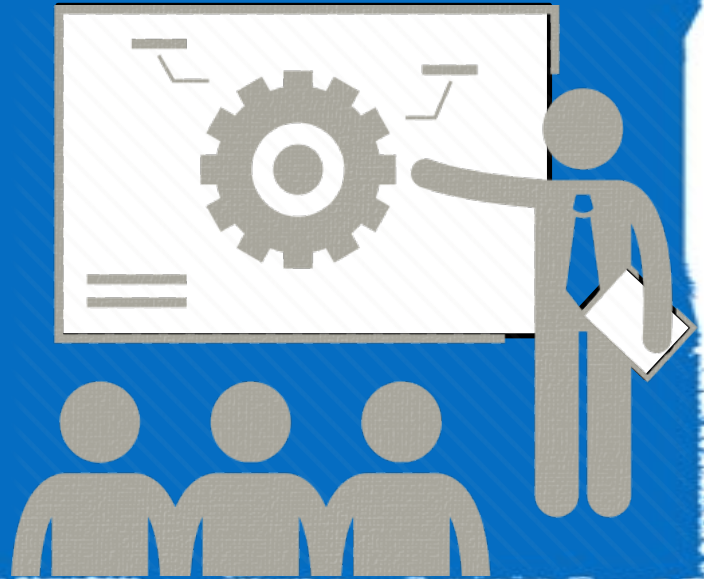
Environmental Health & Safety Department
www.csusb.edu/ehs

Monday thru Friday 8am—5pm
Email us: ehs@csusb.edu
Call Us: 909-537-5179

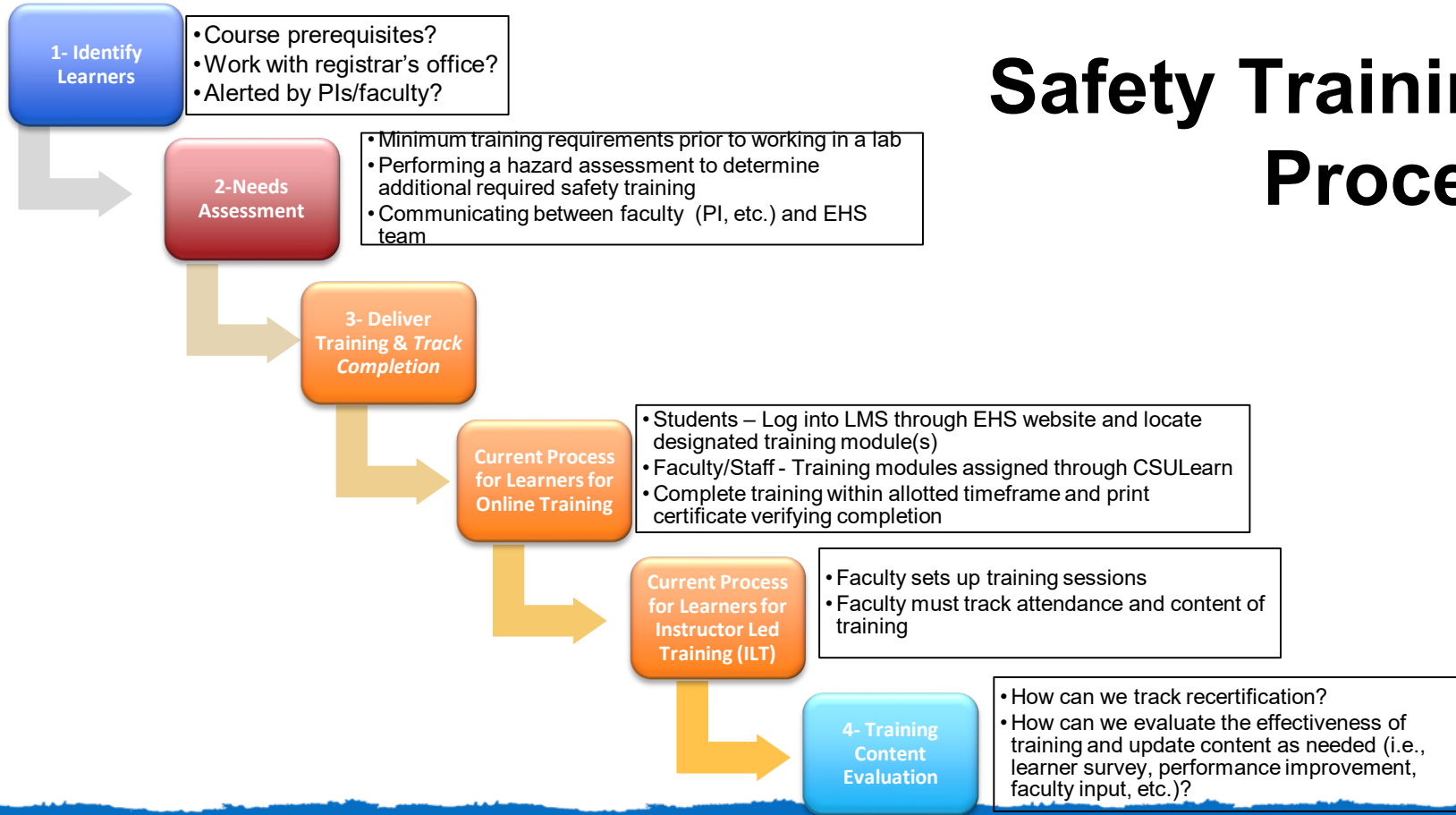
CSUSB WE DEFINE THE *Future*

EH&S Training

Melisa Morrow—Training and Learning Management System Specialist
Melisa.Morrow@csusb.edu



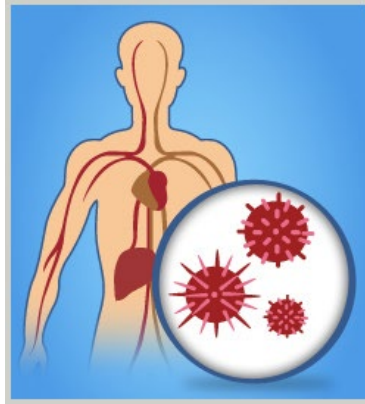
Safety Training Process



Department Training Matrix

FM Training Matrix Class	Current Method of Delivery O=Online ILT=Instructor Led Training	Curriculum Title	Curriculum Activity Code	CSU Learn Course Activity Code	Length of course	Expiration Date/Freq Time to Complete	Job Codes *=designated individuals
Accident Investigation	O	Accident Investigation	CSUSB-CURRIC-ACCIDENTINVESTIGATION	ehs_cal_a14_sh_enus	32 min	Initial only	Bldg. Service Eng. Supervisor-6700 Electrician Supervisor-6534 Facilities Project Supervisor-6265 Lead Custodian-2015 Lead Groundworker-0726 Lead Painter-6525 Supervising Plumber-6547 Managers?
Asbestos Awareness	O		CSUSB-CURRIC-ASBESTOS	ehs_cal_a01_sh_enus	37 min	Annually	AC/Refrigeration Mechanic-6699 Auto Equipment Mechanic-6270* Bldg. Service Eng./Fac. Control Specialist-6260, 6702 Bldg. Service Eng. Supervisor-6700 Carpenter-6476 Supervising/Lead Carpenter-6474 Custodian-2010 Electrician-6533 Electrician Supervisor-6534 Facilities Project Supervisor-6265 Facilities Worker/Maintenance Mech.-6251, 6940 Grounds Worker-0731

What kind of safety training do you need for your faculty/staff and students?



How Can We Support You in Tracking Training Completion?



Looking forward to working with you...

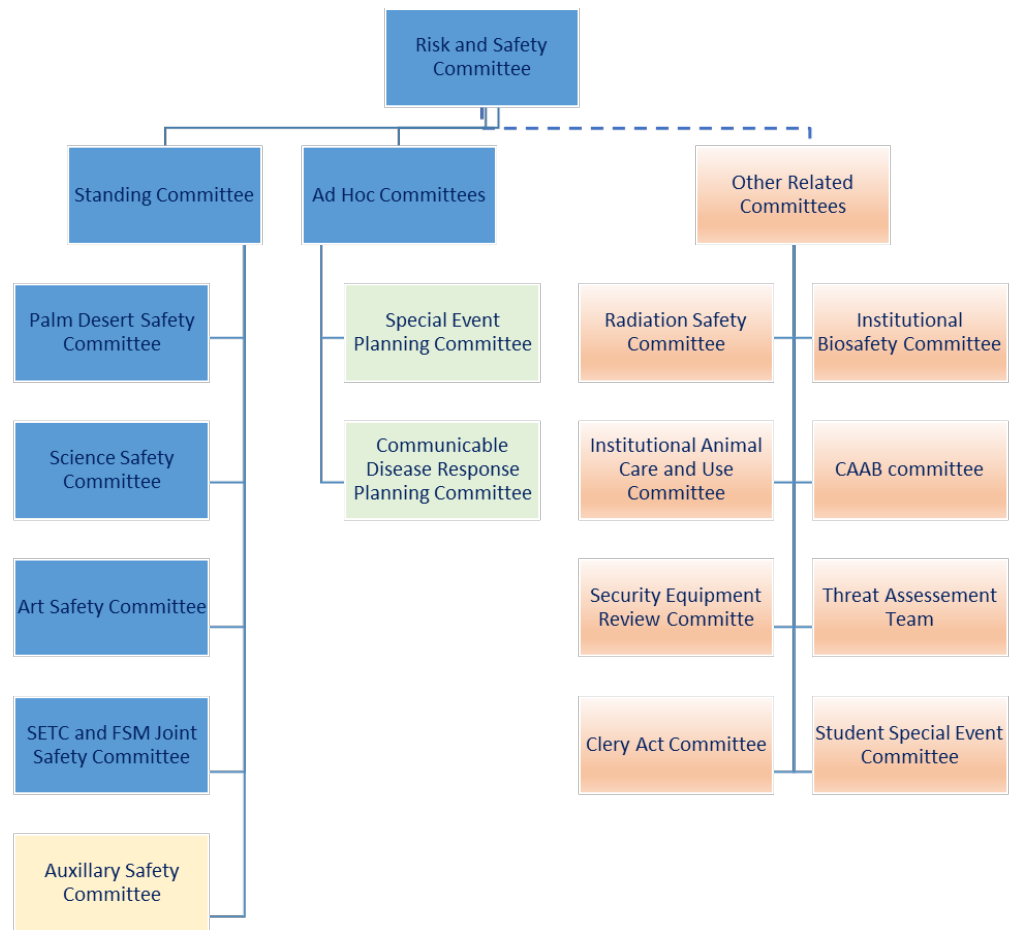


Restructuring of Campus Safety Committees

Cal-State San Bernardino

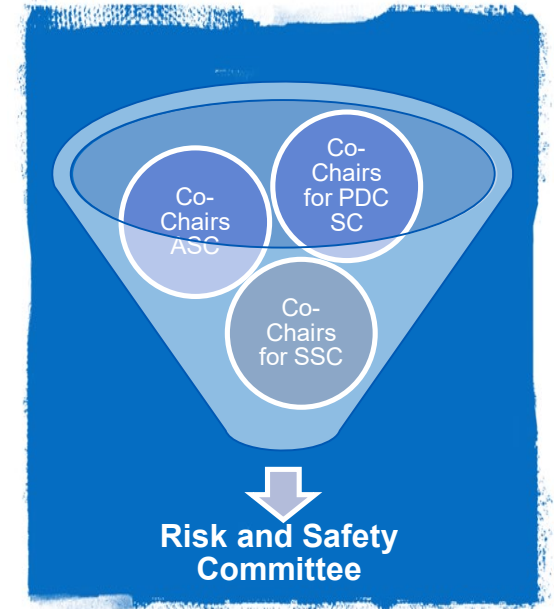
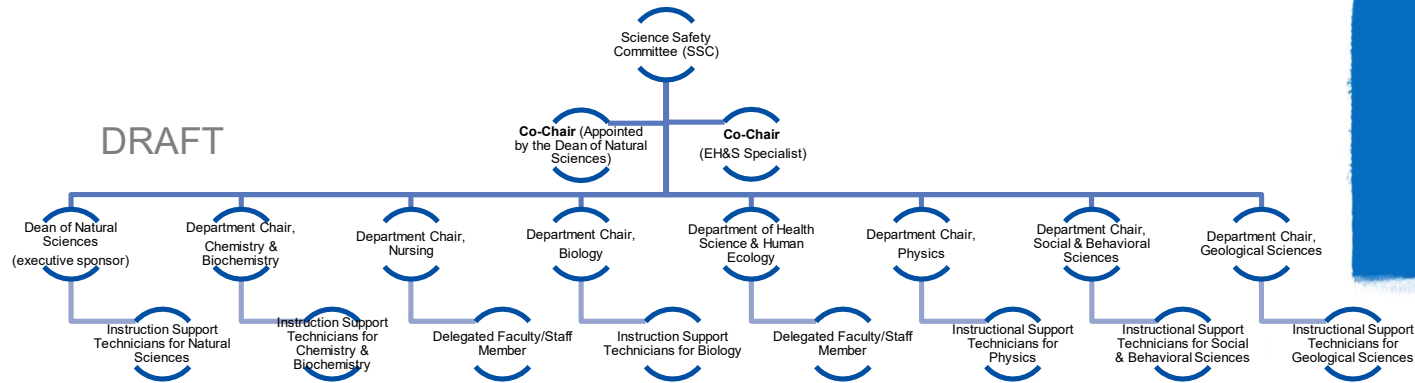


Proposed Campus Safety Committee Structure



Proposed Science Safety Committee Structure

DRAFT



Risk and Safety Solutions (RSS)

Implementation of Chemical Inventory and
Hazard Door Signs



CSUSB WE DEFINE THE *Future*

Some RSS Features



- Can be used with a mobile device
- Automatically notifies group members of changes made
- Provides “Recent Activity” for all containers in your inventory
- Capability to make a container or entire inventory private
- Automatically populates “Door Hazard Signs”

- Track and inventory your chemicals
- Quick and easy way to maintain inventory stock
- Summary of potential hazards and safety information for your laboratory area

What is RSS for chemicals?



Door Hazard Signs

CHEMICAL SCIENCES: Room0224 (2)

Inventory Owner Emergency Contacts

Name	Role	Phone #	Alternate Phone #
Kimberley Cousins	Inventory Owner	—	

Emergency Contacts

Name	Role	Department	Phone #	Alternate Phone #

No inventories have been certified for this location.



Mutagenicity
Carcinogen
Target Organ Toxicity
Reproductive Toxicity
Aspiration Toxicity



Acute Toxicity (harmful)
Respiratory Tract Irritant
Irritant (skin and eye)
Narcotic Effects
Skin Sensitizer
Acute Toxicity (harmful),
Respiratory Tract Irritant



Eye Damage
Skin Corrosion/Burns, Eye Damage
Corrosive to Metals



Acute Toxicity - Oral
Acute Toxicity - Dermal
Acute Toxicity - Inhalation
Acute Toxicity - Oral, Acute Toxicity
- Dermal, Acute Toxicity - Inhalation



Emits Flammable Gas
Flammables
Self-Heating
Self-Reactives
Pyrophorics



Aquatic Toxicity



Oxidizers

Additional Hazards or Special Concerns

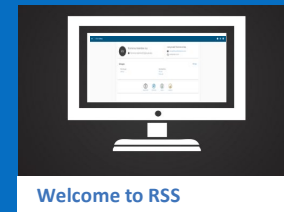
- Creates editable field where emergency contact information can be added
- Clear indication of the hazards
- Identifies the last time the chemical inventory was certified
- Allows for custom additional hazards to be displayed.



CSUSB WE DEFINE THE *Future*

How do I access RSS?

- Login to MyCoyote using your Coyote ID and Password
- Choose Administrative Systems Tile
- Choose CSU Safety Management Tile
- Type in your CSUSB email to login in



Questions?



Environmental Health &
Safety Department

www.csusb.edu/ehs

Monday thru Friday 8am—5pm

Email us: ehs@csusb.edu

Call Us: 909-537-5179

Next Steps

- Creation and implementation of Science Department Safety Plan.
- Continued efforts for RSS chemical inventory.
- Implementation of RSS door signs for laboratory areas.
- Updating and finalizing Safety Committee Charters.

**CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO (CSUSB)
BIOLOGICAL SAFETY COMMITTEE (IBC)
RISK ASSESSMENT WORKSHEET**

IBC#

PI/Faculty Name:

Building/Lab Room Number:

Laboratory protocols consist of one or more procedures. Each procedure in the protocol needs an agent-specific Biological Risk Assessment. Once an agent-specific Biological Risk Assessment has been completed for the procedure, it can be used for multiple protocols by referencing its tracking number. The procedure may be performed with additional precautions, if desired, but must be no less stringent than what is calculated below at Section II.

Keep a completed copy of this worksheet in your Biosafety Manual. The Centers for Disease Control and Prevention ***Biosafety in Microbiological and Biological Laboratories (BMBL)*** 5th Edition has additional guidance on facilities, work practices, PPE, and medical surveillance.

Section I: Please complete all data entry in this section.

1. Agent Used:
2. Is a vaccine available? Yes ☐ No ☐
3. Risk Group of Agent (check <https://absa.org/> 1. ☐ 2. ☐ 3. ☐ 4. ☐
(Note that inactivated agents are Risk Group 1.)
4. Procedure(s):
5. For Risk Group 2 – 3, is there a splash potential? Yes ☐ No ☐
6. For Risk Group 2 – 3, does the procedure generate aerosol or large concentration? (e.g., cell culture, vortex, centrifuge, aerosol chamber, sonicate)
Yes ☐ No ☐

Section II: Data will be calculated in this section according to the answers in Section 1.

1. Facility and Work Practices Biological Safety Levels (BSLs):
Facility BSL 1. ☐ 2. ☐ 3. ☐ 4. ☐ Work Practices BSL 1. ☐ 2. ☐ 3. ☐ 4. ☐
2. Biological Safety Cabinet: Class I/II ☐ Class III ☐
3. Personal Protective Equipment (PPE) Needed for Procedures:
 - a. Gloves: latex/nitrile required Yes ☐ No ☐

- b. Eye: safety glasses required Yes ☐ No ☐
 goggles + face shield Yes ☐ No ☐
- c. Lab Coat: white Yes ☐ No ☐
 blue smock/coveralls Yes ☐ No ☐
 full hazmat suit Yes ☐ No ☐
- d. Respirator: N-95/PAPR Yes ☐ No ☐

4. Medical Protection and Surveillance:

- a. Medical Monitoring Required: Yes ☐ No ☐
- b. Vaccine Recommended: Yes ☐ No ☐
- c. Respiratory Protection Program: Yes ☐ No ☐

5. Comments:

Note: Vaccines and respirators may require separate risk assessments.

IBC Chair Signature:

Date: _____

Biological Safety Officer's Signature:

Date: _____

NIH Guidelines for Research Involving Recombinant DNA

May 2020. Appendix B. <https://osp.od.nih.gov/biotechnology/nih-guidelines/>

Appendix B - Table 1: Basis for the Classification of Biohazardous Agents by Risk Group (RG)

Risk Group 1 (RG1)	Agents that are not associated with disease in healthy adult humans
Risk Group 2 (RG2)	Agents that are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available
Risk Group 3 (RG3)	Agents that are associated with serious or lethal human disease for which preventive or therapeutic interventions may be available (high individual risk but low community risk)
Risk Group 4 (RG4)	Agents that are likely to cause serious or lethal human disease for which preventive or therapeutic interventions are not usually available (high individual risk and high community risk)

Appendix B-I. Risk Group 1 (RG1) Agents

RG1 agents are not associated with disease in healthy adult humans. Examples of RG1 agents include asporogenic *Bacillus subtilis* or *Bacillus licheniformis* (see Appendix C-IV-A, *Bacillus subtilis* or *Bacillus licheniformis* Host-Vector Systems, Exceptions); adeno-associated virus (AAV – all serotypes); and recombinant or synthetic AAV constructs, in which the transgene does not encode either a potentially tumorigenic gene product or a toxin molecule and are produced in the absence of a helper virus. A strain of *Escherichia coli* (see Appendix C-II-A, *Escherichia coli* K-12 Host Vector Systems, Exceptions) is an RG1 agent if it (1) does not possess a complete lipopolysaccharide (i.e., lacks the O antigen); and (2) does not carry any active virulence factor (e.g., toxins) or colonization factors and does not carry any genes encoding these factors. Those agents not listed in Risk Groups (RGs) 2, 3 and 4 are not automatically or implicitly classified in RG1; a risk assessment must be conducted based on the known potential properties of the agents and their relationship to agents that are listed.

Appendix B-II. Risk Group 2 (RG2)

RG2 agents are associated with human disease which is rarely serious and for which preventive or therapeutic interventions are often available

Appendix B-III. Risk Group 3 (RG3)

RG3 agents are associated with serious or lethal human disease for which preventive or therapeutic interventions may be available.

Appendix B-IV. Risk Group 4 (RG4)

RG4 agents are likely to cause serious or lethal human disease for which preventive or therapeutic interventions are not usually available.

For further information on Risk Groups 1 – 4 visit the NIH Guidelines website below which includes the full list of *bacterial, fungal, parasitic, and viruses* under each Risk Group.

<https://osp.od.nih.gov/biotechnology/nih-guidelines/>

Summary of Recommended Biological Safety Levels for Infectious Agents

BSL	Agents	Practices	Primary Barriers and Safety Equipment	Facilities (Secondary Barriers)
1	Not known to consistently cause diseases in healthy adults	Standard microbiological practices	-No primary barriers required. -PPE: laboratory coats and gloves; eye, face protection, as needed	-Laboratory bench and sink required
2	Agents associated with human disease Routes of transmission include percutaneous injury, ingestion, mucous membrane exposure	BSL-1 practice plus: - Limited access - Biohazard warning signs - "Sharps" precautions - Biosafety manual defining any needed waste decontamination or medical surveillance policies	Primary barriers: - BSCs or other physical containment devices used for all manipulations of agents that cause splashes or aerosols of infectious materials -PPE: Laboratory coats, gloves, face and eye protection, as needed	-BSL-1 plus: Autoclave available
3	Indigenous or exotic agents that may cause serious or potentially lethal disease through the inhalation route of exposure	BSL-2 practice plus: -Controlled access -Decontamination of all waste -Decontamination of laboratory clothing before laundering	Primary barriers: -BSCs or other physical containment devices used for all open manipulations of agents -PPE: Protective laboratory clothing, gloves, face, eye and respiratory protection, as needed	BSL-2 plus: -Physical separation from access corridors -Self-closing, double-door access -Exhausted air not recirculated -Negative airflow into laboratory -Entry through airlock or anteroom -Hand washing sink near laboratory exit
4	-Dangerous/exotic agents which post high individual risk of aerosol-transmitted laboratory infections that are frequently fatal, for which there are no vaccines or treatments -Agents with a close or identical anti-genic relationship to an agent requiring BSL-4 until data are available to redesignate the level -Related agents with unknown risk of transmission	BSL-3 practices plus: -Clothing change before entering -Shower on exit -All material decontaminated on exit from facility	Primary barriers: -All procedures conducted in Class III BSCs or Class I or II BSCs in combination with full-body, air-supplied, positive pressure suit	BSL-3 plus: -Separate building or isolated zone -Dedicated supply and exhaust, vacuum, and decontamination systems -Other requirements outlined in the text

Section IV—Laboratory Biosafety Level Criteria

Biosafety in Microbiological and Biomedical Laboratories (BMBL) 5th Edition p. 59.

Available at the CDC Website: <http://www.cdc.gov/biosafety/publications/bmbl5/>

APPENDIX C: LASER USE REGISTRATION FORM AND SOP REQUIREMENTS

Date:
Coyote ID:
This form is to be used for all class 3B and 4 lasers. A separate form is required for each laser. Please complete and return this form via email to the Radiation Safety Officer (kpierson@csusb.edu)
Responsible User/Primary Investigator:
Phone:
Department:
Building & Room # where laser used:
Names of Laser User:

LASER INFORMATION:	
Laser Make:	Laser Model:
Serial Number:	Laser Type:
Laser Classification (circle one) <div style="display: flex; justify-content: space-around; padding: 5px;"> CLASS 3B CLASS 4 UNLABELED </div>	
CW:	PULSED:
Wavelength (nm):	Wavelength (nm):
Max Power (W):	Pulse duration (sec):
Average Power (W):	Pulse frequency (Hz):
	Max Energy (J):
	Average Energy (J):
OTHER LASER INFORMATION IF KNOWN:	
Beam diameter at aperture (mm):	
Beam divergence (mrad):	
Beam shape (circle one): Circular Oval Square	

DESCRIPTION OF LASER EXPERIMENT(S):

Applicant's Signature: _____ Date: _____

Appendix C Project Application

Each person responsible for a project must be an Authorized User. This person must complete the Statement of Training and Experience Form (Form RH-2050-A, Appendix B above) which is submitted to the Radiation Safety Committee. For each project utilizing radioactive materials, including classroom use, a Project Authorization must be approved by the Radiation Safety Committee. The Project Authorization is valid for a period of **one year only**. At the end of each year, the Authorized User may reapply.

PROJECT AUTHORIZATION FORM

- 1. Individual(s) responsible for this project: _____
- 2. Beginning and ending dates for this project: _____
- 3. Licensee authorizing project: Office of Academic Research
California State University at San Bernardino Under
license number 1874-36
- 4. Radionuclides used in project:

Source	Quantity	Form	Sealed / Unsealed	Possession Limit of License

- 5. University or other facilities to be used: _____
- 6. Will experimental animals be used? ☐ Yes ☐ No
If yes, what kind of animals? What is the activity per carcass? What is the method of disposal? Date of Institutional Animal Care and Use Committee (IACUC) approval

7. Will an airborne radioactive gas, vapor or aerosol be generated? _____
If yes, what will become airborne? What is the quantity that will become airborne?
How will it be contained? What is the method of disposal?
How will it be monitored?
8. Description of the project, including the hazardous operations.
9. Description of methods and equipment used to reduce risks to humans and the environment to "as-low-as- practicable" levels. Include training of students and other lab personnel. How will exposure to personnel be monitored?

10. Will students be involved in this project? _____. If so, please attach or forward the names of all students involved in this project either currently or in the future. Include written description of the students involved in this project training in radioisotope use which the students have received.

11. Special requirements from Radiation Safety Officer (RSO) and Radiation Safety Committee (RSC).

a. Include the following wording on purchase order for every purchase of a radionuclide:

"Approval by the Radiation Safety Officer: _____, Kathy Pierson. The California Radioactive Materials License Number is: 1874-36 (Expiration Date: 4-22-2005) and a copy of the "Timely Renewal Letter". After arrival at CSUSB, hold in the Receiving Department until shipment is inspected. Please contact Kathy Pierson, RSO at extension 73091, mobile 909- 208-2258 or Cynthia Crawford, Professor of Psychology at extension 77416 to make arrangements for inspection of shipment and delivery to Authorized User."

b. Contact the RSO for disposal of radionuclides.

c. At the end of the project, contact the RSO for pick-up of remaining radionuclides and for inspection/survey of the facilities used.

d. **Attach a drawing of the room in which the radioisotope will be used.** Use this drawing to indicate where surveys or swipe tests have been done at either the end of each laboratory exercise (for classroom), the end of each experiment, or at a minimum of monthly intervals.

e. Waste disposal: All liquid waste containing radionuclides will be collected and transferred to the RSO after labeling with identity and quantity of radioisotope. All dry waste, including gloves, vials, dishes, pipettes, paper towels, and bench paper, will be collected and transferred to the RSO after labeling with identity and quantity of radioisotope.

Signature of applicant: _____, Date: _____

Approval by:

Radiation Safety Officer _____, Date: _____

Radiation Safety Committee _____, Date: _____

Original: Office of Academic Research

Copies: Applicant, Chair, Radiation Safety Committee,
Radiation Safety Officer