Administrative Procedure

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Subject: RADIATION SAFETY COMMITTEE

1.0 PURPOSE:

Establish a committee to oversee the implementation of laser and radiation safety programs at California State University, Los Angeles (Cal State LA).

2.0 ORGANIZATIONS AFFECTED:

All organizational units of the University and any persons that are subject to the provisions of Cal State LA's Laser Safety Program or Cal State LA's Radiation Safety Program.

3.0 REFERENCES:

3.1. California Health and Safety Code (HSC), Division 20, Various Chapters

3.2. California Code of Regulations (CCR), Title 17, Division 1, Chapter 5, Subchapter 4, Radiation

3.3. California Code of Regulations, Title 17, Division 1, Chapter 5, Subchapter 4.5, Radiologic Technology

3.4. California Code of Regulations, Title 17, Division 1, Chapter 5, Subchapter 4.6, Requirements for Land Disposal of Radioactive Waste

3.5. California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 7, General Industry Safety Orders

3.6. Code of Federal Regulations (CFR), Title 10, Chapter 1, Nuclear Regulatory Commission

3.7. Code of Federal Regulations, Title 21, Chapter 1, Subchapter J, Radiological Health

3.8. Code of Federal Regulations, Title 40, Chapter 1, Subchapter F, Radiation Protection Programs

3.9. Occupational Safety and Health Administration (OSHA), Part 1910, Subpart Z, Standard 1910.1096, Ionizing Radiation

3.10. American National Standards Institute (ANSI) Z136.1, 2022, Standard for the Safe Use of Lasers

4.0 POLICY:

The Radiation Safety Committee (RSC/Committee) will:

4.1. Assist in the formulation of policies and procedures governing the use of ionizing and non-ionizing radiation, such as lasers, microwaves, UV, etc.

4.2. Maintain surveillance as to the operational status and methodologies of the Laser and Radiation Safety programs and all laboratories using radiation.

4.3. Perform other necessary duties to ensure the protection of all faculty, staff, students, and visitors, as well as the University's resources and reputation.

5.0 DEFINITIONS:

5.1. Authorization Renewal – Procedure within the authorization process, whereby existing Authorizations are extended for an additional calendar year.

5.2. Ionizing Radiation – A type of energy that is emitted by certain materials and can remove tightly bound electrons from atoms, causing them to become ionized. Ionizing radiation can be emitted in the form of particles or electromagnetic waves, such as gamma rays, X-rays, or beta particles.

5.3. Laser – A device that produces a coherent beam of radiant energy by stimulated emission. An acronym for Light Amplification by Stimulated Emission of Radiation.

5.4. Laser Registration – A formal document prepared by the Radiation Safety Officer (RSO) granting authorization to use or store Class 3B and 4 lasers. The document profiles the lasers to be used or stored and lists the individuals authorized to use the lasers. Laser Registrations expire at the end of each calendar year, regardless of the issue date, after which time the Registration must be renewed.

5.5. Laser Registration Application – A formal documented application completed by any individual desiring to possess or use Class 3B or 4 lasers, which, upon completion, is returned to the Radiation Safety Officer for initial approval and presentation to the Radiation Safety Committee (RSC) for review and final authorization.

5.6. Personnel Monitoring Equipment or Device – Any device designed to be worn or carried by an individual for the purpose of measuring the dose received by that individual, which includes. film badges, film rings, TLD rings, etc.

5.7. Quorum – The minimum number of Committee members that must be present at the time of any vote, for the results of a vote to be considered valid. Additionally, a quorum must be present for compliance with license requirements in order for any Committee meeting to qualify as satisfying the semester meeting requirements. For this Committee, a quorum shall be considered to be a minimum of three (3) voting members, or 50 percent of the Committee's voting members.

5.8. Radiation Producing Machine (RPM) – Any machine or device capable of producing ionizing radiation when the associated control device is operated, but excluding any device that produces ionizing radiation by virtue of containing radioactive materials.

5.9. Radiation Use Authorization (RUA/Authorization) – A formal documented application completed by any individual desiring to possess and use radioactive material or machines that produce ionizing radiation, which upon completion, is returned to the Radiation Safety Officer (RSO) for presentation to the Committee for review.

5.10. Radiation Safety Committee (RSC/Committee) – State mandated committee responsible for developing and maintaining policies and procedures for radioactive materials. The RSC evaluates proposals for the use of radioactive materials and radiation producing machines. The Committee's membership consists of the following.

5.10.1. The Assistant Vice President (AVP) of Risk Management and Environmental Health & Safety (RMEHS) – nonvoting member

5.10.2. The Associate Director of RMEHS – nonvoting member

5.10.3. The Radiation Safety Officer (RSO) – nonvoting member

5.10.4. The Director of the Student Health Center, or his/her designee.

5.10.5. One faculty or staff member appointed by the Dean of the College of Engineering, Computer Science, and Technology. The appointed faculty or staff member shall have current or prior authorization for use of radioactive material or radiation producing machines or current or prior laser registration.

5.10.6. Four faculty or staff members appointed by the Dean of the College of Natural and Social Sciences. Appointed faculty or staff members shall have current or prior authorization for use of radioactive material or radiation producing machines or current or prior laser registration. These faculty or staff members shall represent the following areas of research:

5.10.6.1. Physics and Astronomy

5.10.6.2. Chemistry and Biochemistry

5.10.6.3. Biology and Microbiology

5.10.6.4. At-large representative from any department or area of research providing the appointee has a current or prior authorization for the use of radioactive materials or radiation producing machinery.

5.10.7. Appointees will serve a three-year term and may be reappointed with no restrictions or limits on the number of terms.

5.11. Radiation Safety Committee Chair (Chair) – Elected by the Committee to preside over Committee meetings. The Chair must be an appointed Committee member and cannot be the Radiation Safety Officer, the Associate Director of RMEHS or the AVP of RMEHS.

5.12. Radiation Safety Officer (RSO) – Responsible for overseeing all aspects of radiation safety within an institution, ensuring compliance with federal, state, and local regulations. The RSO manages the Radiation Safety Program, which governs the safe use, handling, storage, and disposal of radioactive materials (RAM) and radiation-producing machines (RPM). Key responsibilities include reviewing and approving Radiation Use Authorizations (RUA), ensuring that personnel are properly trained, and overseeing radiation waste management, including the safe collection, storage, treatment, and disposal of radioactive waste. The RSO also conducts regular inspections, audits, and radiation surveys to ensure safety protocols are followed, investigates incidents involving radioactive materials, maintains detailed records of RAM and RPM, and serves as the liaison with regulatory agencies.

5.13. Radiation Use Authorization (RUA/Authorization) – A formal documented application completed by any individual desiring to possess and use radioactive material or machines that produce ionizing radiation, which upon completion, is returned to the Radiation Safety Officer for presentation to the Committee for review.

5.14. Radioactive Material (RAM) – Any material that emits ionizing radiation spontaneously.

5.15. Radiation Safety Program – Refers to the requirements of state and federal law applicable to the use of radioactive materials (RAM) and radiation producing machines (RPM), as well as the requirements specified in Cal State LA's radioactive materials license issued by the California Department of Public Health.

5.16. Registration Renewal – Procedure within the registration process, whereby existing Laser Registrations are extended for an additional calendar year.

5.17. Valid Vote – Official voting process used by the Committee whereas a quorum is present and the decision rendered was by simple majority.

5.18. Vote, Voting – Any ratification or refutation of an item properly motioned for consideration by the Committee shall be made only when the item has been properly submitted and a quorum of the Committee is present to render a binding decision by vote. Alternate voting methods such as proxy votes, votes in absentia, or any other vote that does not require the voting member's physical presence shall also be considered valid.

6.0 RESPONSIBILITIES:

6.1. The President will:

6.1.1. Approve the formation of the Radiation Safety Committee (RSC).

6.1.2. Designate the AVP of RMEHS for overall management oversight of the Laser and Radiation Safety programs and the RSC.

6.2. The AVP of RMEHS shall:

6.2.1. Be a direct liaison between all University officials and the RSC Chair.

6.2.2. Ensure that all policies and procedures are implemented and followed.

6.3. The Radiation Safety Officer (RSO) shall:

6.3.1. Refer all matters requiring committee approval to the RSC.

6.3.2. Prepare applications and amendments for review by the RSC as needed.

6.3.3. Maintain minutes of all Committee meetings or appoint a designee to perform such functions.

6.3.4. Conduct annual audits of the radiation and laser laboratories and report findings to audited laboratories and then to the RSC.

6.3.5. Review and renew RUA and Laser Registrations on an annual basis.

6.4. The RSC shall oversee the implementation and enforcement of the Laser and Radiation Safety programs. Additional responsibilities shall include:

6.4.1. Familiarity with all pertinent California regulations.

6.4.2. Familiarity with the University’s Radioactive Material License.

6.4.3. Familiarity with the University’s Radiation Safety Program.

6.4.4. Familiarity with the University’s Laser Safety Program.

6.4.5. Review and approval of RUA applications for new users applying to use radioactive material.

6.4.6. Review and final authorization of laser registration applications for new users applying to use Class 3B and 4 Lasers.

6.4.7. Determining sufficient qualifications for applicants to ensure research is conducted and duties are performed is a manner that is both safe and compliant with all regulations and license conditions.

6.4.8. Prescribing any special conditions required during a proposed project that incorporates ionizing radiation or Class 3B or 4 lasers.

6.4.9. Review the Radiation Safety Program periodically to determine that all activities are being conducted safely and in accordance with the pertinent regulations and license conditions.

6.4.10. Reviewing the Laser Safety Program periodically to determine that all activities are being conducted safely and in accordance with pertinent regulations and license conditions.

6.4.11. Recommending remedial actions to correct deficiencies identified in the Laser and Radiation Safety programs.

6.4.12. Maintaining regular scheduled meetings, at a minimum of once each semester, and maintaining accurate records of all actions resulting from such meetings.

6.4.13. Electing the Committee Chair.

6.5. The Associate Vice President of Facilities Planning and Construction will notify RMEHS and/or the Radiation Safety Officer, as appropriate, when planning construction or maintenance projects that may impact or otherwise involve spaces where ionizing radiation (RPM/RAM) or Class 3b or 4 lasers are being stored or utilized.

6.6. The Director of Facilities Services will:

6.6.1. Ensure that all appropriate Facilities Services staff is properly trained in recognizing signs, labels, and symbols indicating the presence of lasers or radioactive materials (RPM/RAM).

6.6.2. Ensure that all relevant Facilities Services staff is trained in the procedures for notifying RMEHS and/or the Radiation Safety Officer in the event of any circumstances involving the use of radioactive materials (RPM/RAM) or Class 3b or 4 lasers that may raise legitimate concerns related to the security and/or health and safety of University faculty, staff, and/or students.

6.7. Shipping and Receiving will:

6.7.1. Ensure that all shipments of radioactive material (RAM) arriving at the University are property handled and promptly handed over, without exception, to the Radiation Safety Officer (RSO).

6.7.2. Ensure that all appropriate individuals have received proper instructions on the procedures to be followed if a shipment of radioactive material (RAM) arrives in a damaged or otherwise compromised condition, where the package may be suspected to be contaminated or leaking radioactive material (RAM).

6.7.3. Ensure that all appropriate individuals have adequate training in recognizing radioactive signs, labels, and other shipping information so as to maintain an appropriate level of care and concern when delivering or working near such labeled items.

6.8. The Dean of the College of Natural and Social Sciences will:

6.8.1. Appoint four faculty/staff members to the RSC.

6.8.2. Promptly appoint replacement membership in the event an appointed member is unable, for any reason, to fulfill the obligations of attending meetings.

6.8.3. Notify all appointees by formal letter of appointment with copies to the RSO.

6.9. The Dean of the College of Engineering, Computer Science, and Technology will:

6.9.1. Appoint one faculty/staff member to the RSC.

6.9.2. Promptly appoint replacement membership in the event an appointed member is unable for any reason to fulfill the obligations of attending meetings.

6.9.3. Notify all appointees by formal letter of appointment with copies to the RSO.

7.0 PROCEDURES:

7.1. Meetings

7.1.1. The RSC shall meet as often as necessary to conduct business, but in no event shall meetings be less frequent than once per semester.

7.2. Items for Consideration

7.2.1. All items for consideration are to be submitted to the RSO at least two (2) business days prior to the next regularly scheduled Committee meeting. The RSO will either act on the items and report such actions to the Committee or refer the items to the Committee for consideration.

7.3. Committee Actions

7.3.1. The RSC shall be responsible for and shall maintain exclusive authority for the following:

7.3.1.1. Review and approval of all new applications to use radioactive material (RAM), machines producing ionizing radiation (RPM), and Class 3B and 4 lasers.

7.3.1.2. Review and approval of all amendments to existing Authorizations (RUA) wherein the amendment indicates:

7.3.1.2.1. The use of a new radioisotope.

7.3.1.2.2. An increase in possession limit for an already approved radioisotope wherein such possession may require external monitoring or bioassay producers.

7.3.1.2.3. A change in procedure for an already approved radioisotope.

7.3.1.2.4. Any amendment for which the RSO prefers to defer to the Committee for guidance.

7.3.2. Committee action shall not be specifically required, and action may be taken by the RSO, without committee approval, for amendments wherein the proposed change is limited to:

7.3.2.1. A change in designated users.

7.3.2.2. A change in possession limit wherein the proposed use and radioisotope remain unchanged and provided that the change in possession limit does not trigger required external monitoring or bioassays.

7.3.2.3. A change in chemical form for an already approved radioisotope provided that the proposed change shall be limited to labeled nucleotides and or/amino acids and wherein the current Authorization (RUA) to be amended currently recognize the use of the radioisotope labeled onto one or more nucleotides and/or amino acids.

7.3.2.4. Termination of an Authorization (RUA).

7.4. RSC Approvals for RUAs and amendments shall be valid providing the following conditions are met:

7.4.1. The approval was by vote.

7.4.2. The vote passed by a simple majority.

7.4.3. The Committee membership quorum was present at the time of the vote.

7.4.4. Sufficient time to review the application or amendment was available to Committee members.

7.5. Suspension of RUA – The RSC shall have the authority to suspend any RUA for RAM, RPM, and the use of any Class 3B or 4 lasers when any situation exists which meets one or more of the following conditions.

7.5.1. Repeated violations of state, federal, or university policies, regulations, guidelines, or standards wherein sufficient notification of failure to comply has been delivered to

the possessor of the RUA and corrective measures have not been enacted within the appropriate time frame.

7.5.2. A willful and flagrant neglect for compliance indicates the potential for citation from any inspection agency.

7.5.3. Any condition deemed detrimental to the health and safety of any individual in the proximity of the procedure, experiment, or operating machinery.

7.5.4. Any condition determined to potentially expose the University to unfavorable publicity and/or liability.

7.5.5. Any condition wherein there is release or potential for release of RAM into the environment, or any incident associated with the use of RAM that occurs such that the conditions associated with the event would require notification to the Department of Health Services as delineated in California Code of Regulations (CCR), Title 17, Section 30295, Notification of Incidents.

7.6. Reinstatement of a suspended RUA – The RSC shall reinstate any suspended RUA, by valid vote, providing the following conditions are met:

7.6.1. All investigations into the events surrounding the suspension are finalized and concluded.

7.6.2. All corrective measures have been enacted, documented, and approved by the RSO.

7.6.3. Any involvement by outside agencies, including regulatory agencies, has been finalized and approvals to proceed are granted in writing by such agencies.

7.6.4. In circumstances where the suspension involves legal actions of any nature, University Legal Counsel must provide clearance in writing to the Committee to reinstate RUA prior to any affirmative actions by the RSC, and all parties must ensure that affirmative actions shall not compromise the University's reputation or ability to defend itself in any potential legal proceedings arising from the events associated with the suspension.

8.0 APPENDICES:

8.1. Radiation Safety Program

8.2. Radiation Safety Committee Charter

8.3. Laser Safety Program

8.4. Radiation Use Authorization (RUA) Form