



A Regional Radiation Safety Program:

The experience of one healthcare system

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Outline

A quick introduction to our healthcare system

Review the components of the radiation safety program for a medical license and our regional approach

Additional resources for Radiation Safety Professionals

Questions and Answers

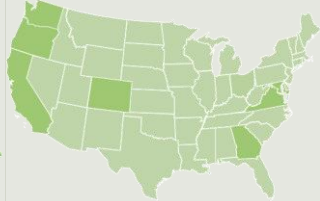
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Kaiser Permanente – a national view

8 Regions

- Hawaii
- Washington
- Northwest (Oregon/Washington)
- Northern California
- Southern California
- Colorado
- Mid-Atlantic
- Georgia



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The Southern California Region of Kaiser Permanente

- Three primary divisions:
 - Kaiser Foundation Hospitals
 - Kaiser Foundation Health Plan
 - Permanente Medical Groups
- 17 Hospitals
- 200 Medical Office Buildings
- 6,000 Physicians
- 1 Medical School opening in 2019
- Insuring approximately 4.4M in SCal



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Medical Imaging Technology and Informatics

- Several functional groups
 - Applications Support
 - Equipment Support
 - Implementation and Optimization
 - Solutions and Strategy
 - Medical Physics and Radiation Safety
 - Department Support



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Radiation Safety Program Requirements

Establish a Radiation Safety Program

- 10 CFR § 20.1101 (c) The licensee shall periodically (at least annually) review the radiation protection program content and implementation.

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Regional Radiation Safety Program

For all materials sites in the region

- Each facility is reviewed semi-annually by the assigned medical physicist

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Radiation Safety Program Requirements

Operating, Safety and Emergency Procedures

- 10 CFR § 36.53 The licensee shall have and follow written operating procedures for:
 - Operation of the irradiator
 - Use of personnel dosimeters
 - Leak testing of sources (every 6 months)
- The licensee shall have and follow emergency or abnormal event procedures for:
 - Personnel overexposures
 - A prolonged loss of electrical power
 - A fire alarm or explosion in the radiation room, etc.

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Operating Safety and Emergency Procedures

Defined in a Regional Radiation Safety Manual

- Available online and used by all medical facilities within the region utilizing radioactive materials.



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Radiation Safety Program Requirements

Personnel Monitoring

- 10 CFR § 20.1502 Internal and external monitoring of occupational exposure to radiation is required for adults likely to receive, in 1 year from sources external to the body, a dose in excess of 10%.

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Personnel Monitoring

Managed regionally

- Approximately 6500 dosimeters are utilized in Scal
- Regional staff coordinate with each facility to add, remove and update dosimeters
- All data are reviewed regionally
- All reports and return rates are posted on our department website for viewing at any time

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Radiation Safety Program Requirements

Radiation Safety Committee

- 10 CFR § 35.24 (3)(F) Licensees that are authorized for two or more different types of uses of byproducts material shall establish a radiation safety committee to oversee all uses of byproduct material

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Area Radiation Safety Committee

For each medical area within the region

- A local radiation safety committee meets quarterly
- Members include:
 - A physician representing radiology;
 - A physician representing nuclear medicine;
 - A physician representing radiation oncology (if applicable);
 - A representative of medical center administration;
 - Director from accreditation/regulation/licensing;
 - Representative of nursing administration;
 - Area medical health physicist;
 - MRI safety officer;
 - Regional RSO
- Responsibilities include:
 - Review and approval all new and renewal applications for human and non-human use
 - Monitor all users of ionizing radiation
 - Implement regional policies necessary to ensure compliance with applicable laws, regulations, conditions of RMLs and accepted principles of radiation safety
 - Review the local radiation dosimetry program on a regular basis

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Regional Radiation Safety Committee

- Meets quarterly
- Members include:
 - A physician representing radiology and nuclear medicine;
 - Regional director of diagnostic imaging services
 - Regional director of MITI
 - Regional RSO
 - Medical Director of quality and clinical analysis
- Responsibilities include:
 - Monitor all uses and users of ionizing radiation
 - Establish regional policies necessary to ensure compliance with applicable laws, regulations, conditions of RMLs and accepted principles of radiation safety
 - Review the radiation dosimetry program on a regular basis
 - Assigns/oversees the duties/responsibilities of the Regional RSO

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Radiation Safety Program Requirements

Records

- 10 CFR § 36.81 Defines records and retention periods
 - Copy of the license, license conditions, documents incorporated into a license by reference, amendments until the license is terminated
 - Evaluations of personnel dosimeters
 - Records of radiation surveys and meter calibrations
 - Leak test analysis, etc.

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