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|  | **Radiation** | **How** | **Where** | **Frequency** | **Reference Level** | **Action Level** | **Records required** |
| Laboratory (all levels) | Beta, gamma | Contamination detector | Benches | Before and after use | Background | Background | Logbook |
| Laboratory (all levels) | Beta, gamma | Contamination detector | Equipment | Before and after use | Background | Background | Logbook, if detected |
| Laboratory (all levels) | Alpha, beta, gamma | Wipe test | Equipment | After use or Monthly  After an incident |  |  | Logbook |
| Laboratory (medium to high level) | Beta, Gamma | Dose rate meter | Suitable wall location | During radiation experiments | 12 µSv/Hour | 10 µSv/Hour | A log if the action level is exceeded |
| X-ray laboratories | X-ray | Radiation detector sensitive to x-rays | Around equipment or operator position | Annually or upon repairs or modification | 12 µSv/Hour | 10 µSv/Hour | Log results and action required |
| Neutron irradiating areas | Neutron | Fixed detector | Around equipment | During experiments |  |  | Logged recordings |
| Radiation isotope storage area | Beta, gamma | Dose rate meter | Central area | Annually |  |  | Logbook |
|  |  |  | Outside entrance | Annually |  |  | Logbook |
|  |  |  | Public area/ path | Annually |  |  | Logbook |

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|  | **Radiation** | **How** | **Where** | **Frequency** | **Reference Level** | **Action Level** | **Records required** |
| Waste storage area | Beta, gamma | Dose rate meter | Central area | Annually |  |  | Logbook |
|  |  |  | Outside entrance | Annually |  |  | Logbook |
|  |  |  | Major path or public area | Annually |  |  | Logbook |
| UV Equipment | UV light | Actinic UV light meter | Operator accessible areas | Upon receipt or modification |  |  | UV signage |
| Laser (class 3 or 4) | Ultraviolet light | Detector | Operator accessible region or edge of optics bench | Equipment alignment or annually | Calculated Maximum Permissible Exposure  No laser beam should be allowed to leave the optics bench or experiment without confinement. | 50% of calculated Maximum Permissible Exposure | Rectify |
| Laser (class 3 or 4) | Visible light | Detector | Operator accessible region or edge of optics bench | Equipment alignment or annually | Calculated Maximum Permissible Exposure  No laser beam should be allowed to leave the optics bench or experiment without confinement. | 50% of calculated Maximum Permissible Exposure | Rectify |
| Laser (class 3 or 4) | Infrared radiation | Detector | Operator accessible region or edge of optics bench | Equipment alignment or annually | Calculated Maximum Permissible Exposure  No laser beam should be allowed to leave the optics bench or experiment without confinement. | 50% of calculated Maximum Permissible Exposure | Rectify |

**Environment Monitoring**

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|  | **Radiation** | **How** | **Where** | **Frequency** | **Reference Level** | **Action Level** | **Records required** |
| Buildings | Radon, Rn-222 | Radon detector | Appropriate location | 5-10 years | 1000 Bq/m3  This is the radon in dwellings action level. | 200 Bq/m3  This is the radon in workplaces action level. | Monitoring reports |
| Sewage | Alpha, Beta, gamma | Liquid counting technique | Building sewer main |  |  |  | ACT Radiation Safety Section report |
| Buildings | Fast Neutrons | Neutron track badges | Public areas | 3 monthly |  |  | Neutron monitoring badge reports |