License Number:

Licensee Name:

Duties and Responsibilities of the Alternate Radiation Safety Officer (ARSO) for Research and Development Laboratory (R&D) Facilities

An Alternate Radiation Safety Officer (ARSO) has the duty and responsibility to the licensee to oversee and ensure safe operation of the licensee's R&D program. The items below are not a complete list of requirements. A licensee must comply with the conditions of the license and regulations specified in Title 17, California Code of Regulations (17 CCR), Title 10, Code of Federal Regulations (10 CFR), Part 20, and the U.S. Department of Transportation (DOT).

The ARSO is authorized to act as the Radiation Safety Officer (RSO) in the event that the RSO is absent or unable to complete the required duties for any reason. In the absence of the RSO, the ARSO agrees to assume all responsibilities of the RSO.

The ARSO has the duty and responsibility to:

- 1. Immediately terminate any condition or activity that is found to be unsafe by the ARSO and / or a threat to public health and safety or property.
- 2. Ensure radiation exposures to personnel are as low as reasonably achievable (ALARA).
- 3. Follow all applicable parts of 10 CFR Part 20 and dose investigational levels.
- 4. Ensure up-to-date radiation protection procedures in the daily operation of the licensee's radioactive material program are developed, distributed, and implemented.
- 5. Ensure possession, use, and storage of licensed material are consistent with the limitations in the license, the regulations, the Sealed Source and Device Registration (SSDR) Certificate(s), and the manufacturer's recommendations and instructions.
- 6. Ensure individuals installing, relocating, maintaining, or repairing devices containing sealed sources are trained and authorized by the State of California, the U.S. Nuclear Regulatory Commission (NRC) or Agreement State license.
- 7. Conduct training programs and otherwise instruct personnel in the proper procedures for handling radioactive material prior to use, at periodic intervals (refresher training), and as required by changes in procedures, equipment, regulations, etc.
- 8. Maintain documentation to demonstrate that individuals are not likely to receive, in one year, a radiation dose in excess of 10% of the allowable limits or that personnel monitoring devices are provided.
- 9. Ensure when necessary, personnel monitoring devices are used and exchanged at the proper intervals, and records of the results of such monitoring are maintained. The results are given to the employee at least annually.
- 10. Properly secure licensed material against unauthorized removal.
- 11. Documentation is maintained to demonstrate, by measurement or calculation, that the total effective dose equivalent to the individual likely to receive the highest dose from the licensed operation does not exceed the annual limit for members of the public.
- 12. Notify the proper authorities of incidents such as loss or theft of licensed material, damage to or malfunction of sealed sources, or fire (emergency phone numbers are kept current).

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- 13. Perform audits of the radiation protection program at least annually and documented.
- 14. Ensure violations of regulations, license conditions or program weaknesses are identified, effective corrective actions are developed, implemented, and documented.
- 15. Ensure licensed material is transported in accordance with all applicable NRC, Agreement State and DOT requirements.
- 16. Dispose of licensed material properly.
- 17. Maintain appropriate records.
- 18. Ensure up-to-date license is maintained, amendment and renewal requests are submitted in a timely manner.
- 19. Provide periodic on-site direct supervision over the implementation of the Radiation Safety Program in technical and administrative issues.
- 20. Review dose records and surveys are reviewed quarterly to ensure safe operations, adequate staff training and engineering controls and to look for trends.
- 21. Ensure ALARA practices are being followed.
- 22. Ensure new users and uses of radioactive material are reviewed prior to first use.

Note: In the event that the licensee proposes a change in its RSO or to terminate the license, you acknowledge and agree to abide by the above duties and responsibilities until RHB amends the license reflecting this change or terminates the license.

I hereby acknowledge and have read the above duties and responsibilities:

Signature of the Alternate Radiation Safety Officer

Print Name

Date