RADIOACTIVE MATERIAL LICENSE

Pursuant to the California Code of Regulations, Division 1, Title 17, Chapter 5, Subchapter 4, Group 2, Licensing of Radioactive Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, use, possess, transfer, or dispose of radioactive material listed below; and to use such radioactive material for the purpose(s) and at the place(s) designated below. This license is subject to all applicable rules, regulations, and orders of the California Department of Public Health now or hereafter in effect and to any standard or specific condition specified in this license.

1. Licensee:	OCCUPATIONAL SERVICES INCORPORATED	*3. License Number:* 5149-37	*Amendment Number:* 55
2. Address:	6397 NANCY RIDGE DRIVE SUITE B SAN DIEGO CA 92121	*4. Expiration date:* August 31, 2031	(3)
Attention:	NICOLA RINALDI PRESIDENT RADIATION SAFETY OFFICER	*5. Inspection agency:*	Radiologic Health Branch South

In response to the email, with attachments, dated November 15, 2023, from Nicola Rinaldi, Vice President, License Number 5149-37 is hereby amended as follows:

6. Nuclide	7. Form	8. Possession Limit
A. Cesium-137	A. Sealed sources (QSA Global, Inc. (formerly Tech/Ops) Model 77302)	A. 2 sources not to exceed 7.4 GBq (200 mCi) each. Total not to exceed 14.8 GBq (400 mCi).
B. Any radionuclide with atomic numbers 3-83 except: 1. Strontium-90 2. Lead-210	B. Sealed sources manufactured, labeled, packaged, and distributed in accordance with a specific license issued to the manufacturer by the U.S. Nuclear Regulatory Commission or an Agreement State	B. Each source not to exceed 370 kBq (10 μCi); Total not to exceed 3.7 MBq (100 μCi).
C. Any radionuclide	C. Any	C. Total not to exceed 2.2 GBq (60 mCi). No single radionuclide to exceed 1.9 GBq (50 mCi). In addition, the combination and/or quantities of isotopes cannot exceed limits (see Condition 27) specified in 10 CFR 30.35(d).
D. Cesium-137	D. Sealed sources	D. 2 sources not to exceed 11.1 MBq (300 μCi) each. Total not to exceed 22.2 MBq (600 μCi).
E. Barium-133	E. Sealed sources	E. 2 sources not to exceed 11.1 MBq (300 μCi) each. Total not to exceed 22.2 MBq (600 μCi).
F. Cobalt-57	F. Sealed sources-dose calibrator vial sources (Eckert and Ziegler Isotope Products Model RV-057, or equivalent)	F. 2 sources not to exceed 370 MBq (10 mCi) each. Total not to exceed 740 MBq (20 mCi).
G. Radium-226	G. Sealed source (Eckert and Ziegler Isotope Products Model GF-226)	G. 1 source not to exceed 3.7 kBq (0.1 μCi).

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6. Nuclide	7. Form	8. Possession Limit
H. Californium-252	H. Sealed sources (Frontier Technology Corporation, Models FTC 10 and 100 series)	H. 2 sources not to exceed 199.8 MBq (5.4 mCi) (10 μg) each. Total not to exceed 399.6 MBq (10.8 mCi) (20 μg).
I. Cesium-137	I. Sealed source (J.L. Shepherd and Associates, Model 6810)	I. 1 source not to exceed 22.2 GBq (600 mCi).
J. Americium-241	J. Electroplated source (Eckert & Ziegler Isotope Products, catalog number AF-241-A1, Type A-1 Disk)	J. 1 source not to exceed 370 Bq (0.01 μCi).
K. Plutonium-239	K. Electroplated source (Eckert & Ziegler Isotope Products, catalog number AF-239-A1, Type A-1 Disk)	K. 1 source not to exceed 370 Bq (0.01 μCi).
L. Strontium-90	L. Eckert & Ziegler Isotope Products, catalog number BF-090-A, Type A Disk with Aluminized Mylar cover	L. 1 source not to exceed 370 Bq (0.01 μCi).
M. Technetium-99	M. Eckert & Ziegler Isotope Products, catalog number BF-099-A, Type A Disk with Aluminized Mylar cover	M. 1 source not to exceed 3.7 kBq (0.1 μCi).
N. Carbon-14	N. Eckert & Ziegler Isotope Products, catalog number BF-014-A, Type A Disk with Aluminized Mylar cover	N. 1 source not to exceed 3.7 kBq (0.1 μCi).
O. Hydrogen-3	O. MB-Microtec Models 400/1, 400/2, 400/3, 400/4, 400/5 and 400/6	O. 10 timepieces, hands, dials or self-luminous devices not to exceed 4.4 GBq (120 mCi) each. Total not to exceed 44.4 GBq (1.2 Ci).
P. Krypton-85	P. Sealed sources	P. Each source not to exceed 3.7 MBq (100 μCi). Total not to exceed 703 MBq (19 mCi).
Q. Any radionuclide atomic numbers 3-83	Q. Sealed sources	Q. Each source not to exceed 370 kBq (10 μCi). Total not to exceed 37 MBq (1 mCi).
R. Hydrogen-3	R. Sealed sources	R. Each source not to exceed 370 MBq (10 mCi). Total not to exceed 740 MBq (20 mCi).
S. Krypton-85	S. Sealed sources (Eckert & Ziegler Isotope Products Models NER-58a Series, KAC.Da Series, NER-588, or NER-8180)	S. Each source not to exceed 37 GBq (1 Ci). Total not to exceed 74 GBq (2 Ci).

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6. Nuclide	7. Form	8. Possession Limit
T. Strontium-90	T. Sealed sources (Eckert and Ziegler Isotope Products (formerly AEA Technology-QSA Incorporated) Model SIC.LC1)	T. Each source not to exceed 2 GBq (54 mCi). Total not to exceed 7.4 GBq (200 mCi).
U. Thorium-230	U. Sealed sources (Eckert and Ziegler Isotope Products Model AF-230 or EAB-230)	U. 2 sources not to exceed 370 Bq (0.01 μCi) (526 ng) each. Total not to exceed 740 Bq (0.02 μCi) (1.05 μg).
V. Americium-241	V. Sealed source (Eckert & Ziegler Isotope Products Model GF Type R Series)	V. 1 source not to exceed 37 kBq (1 μCi).

9. Authorized Use

A.	To be used in a QSA Global, Inc (formerly Tech/Ops Calibrator), Model 773 for calibration of survey instruments (in-house/as a customer service) with ranges up to 2 R/hr and to be used for assessment of shielding in facilities as a customer service.
B. & J.–N.	To be used as either instrument check sources and/or calibration of instruments.
C.	To be used incidental to collection and analysis of leak test samples of sealed sources, wipe samples, or bulk materials for contamination of structural or environmental surfaces or materials during assessment as a customer service provider. To be used incidental to survey, remediation, packaging, or decontamination efforts, as a decommissioning service provider. To be used incidental to thyroid/urine bioassays as a customer service provider.
D.–H., U., V.	To be used for calibration of instruments.
I.	To be used in J.L. Shepherd and Associates Model 28-6 Instrument Calibrator.
A.–C. & E.–F.	To be used for quality control testing of diagnostic and nuclear medicine equipment as a customer service.
O.	To be used for testing of timepieces, hands, dials, or self-luminous devices as a customer service in preparation for an NRC Exempt Sealed Source and Device Registry Application or NRC Exempt Distribution License Application.
P.–R.	To be used for testing as a customer service in preparation for an NRC Exempt Sealed Source and Device Registry Application or NRC Exempt Distribution License Application.
S.–T.	To be used for testing in gauges or devices as a customer service in preparation for General or Exempt License Sealed Source and Device Registry Application or General or Exempt Distribution License Application.
A., D, F.–H., J.–N, & T.	To be used for training as a customer service.

LICENSE CONDITIONS

10. Radioactive material shall be used only at the following approved locations:

(a) 6397 Nancy Ridge Drive, Suite B, San Diego, CA.

(b) Temporary job sites of the licensee in areas not under exclusive (see Condition 15) federal jurisdiction throughout the State of California.

11. This license is subject to an annual fee for sources of radioactive material authorized to be possessed at any one time as specified in items 6, 7, 8 and 9 of this license. The annual fee for this license is required by and computed in accordance with Title 17, California Code of Regulations, Sections 30230-**30231** and is also subject to an annual cost-of-living adjustment pursuant to Section 100425 of the California Health and Safety Code.

12. Radioactive material may be used only by, or under the supervision of, the following individuals:

(a) Nicola Rinaldi
(b) Linda Bray
(c) Michael C. Avants
(d) Marius Barron
(e) Patrick Collins
(f) Brian Hanzal
(g) Chris Walton

13. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 7, 8 and 9 of this license in accordance with the statements, representations, and procedures contained in the documents listed below. The Department's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

(a) The renewal application dated July 25, 2019, and letters dated August 10, 2021, and November 5, 2021, all with attachments, and all signed by Nicola Rinaldi, Radiation Safety Officer, and emails dated April 6, 2022, April 8, 2022, and April 11, 2022, with attachments, from Linda Bray, Alternate Radiation Safety Officer, regarding training as a customer service.

14. (a) The Radiation Safety Officer in this program shall be Nicola Rinaldi.

(b) The Alternate Radiation Safety Officers in this program shall be Linda Bray and Michael C. Avants.

15. Before radioactive materials may be used at a temporary job site at any federal facility, the jurisdiction status of the job site must be determined. If the jurisdiction status is unknown, the federal agency should be contacted to determine if the job site is under exclusive federal jurisdiction. A response shall be obtained in writing or a record made of the name and title of the person at the federal agency who provided the determination and the date that it was provided. Authorization for use of radioactive materials at the job sites under exclusive federal jurisdiction shall be obtained either by:

(a) Filing an NRC Form-241 in accordance with the **Title 10** Code of Federal Regulations, Part 150.20 (b), "Recognition of Agreement State Licenses", or

(b) By applying for a specific NRC license.

Before radioactive material can be used at a temporary job site in another State, authorization shall be obtained from the State if it is an Agreement State, or from the NRC for any non-Agreement State, either by filing for reciprocity or applying for a specific license.

16. Sealed sources possessed under this license shall be tested for leakage and/or contamination as required by Title 17, California Code of Regulations, Section 30275 (c).

17. The following individuals are authorized to collect wipe test samples of sealed sources possessed under this license using leak test kits acceptable to the California Department of Public Health:

(a) The Radiation Safety Officer
(b) Qualified individuals designated in writing by the Radiation Safety Officer.

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18. The licensee is authorized to perform tests for leakage and/or contamination of sealed sources. The following tests may be performed for sources possessed under this license and as a customer service:

    (a) Collection of wipe test samples from sealed sources and devices containing sealed sources.

    (b) Analysis of materials as stated in (a) above for the amount of radioactivity. Reports to customers of analysis shall be in microcuries.

19. Records of leak test results shall be kept in units of becquerels (microcuries) and maintained for inspection. Records may be disposed of following Department inspection. Any leak test revealing the presence of 185 Bq (0.005 μCi) or more of removable radioactive material shall be reported to the California Department of Public Health, Radiologic Health Branch, MS 7610, P.O. Box 997414, Sacramento, CA 95899-7414, within five days of the test. This report shall include a description of the defective source or device, the results of the test, and the corrective action taken.

20. The licensee shall conduct a physical inventory every six months to account for all sealed sources and/or devices received and possessed under the license. Records of the inventories shall be maintained for inspection and may be disposed of following Department inspection.

21. The licensee shall comply with all requirements of Title 17, California Code of Regulations, Section 30373 when transporting or delivering radioactive materials to a carrier for shipment. These requirements include packaging, marking, labeling, loading, storage, placarding, monitoring, and accident reporting. Shipping papers shall be maintained for inspection pursuant to the U.S. Department of Transportation requirements (Title 49, Code of Federal Regulations, Part 172, Sections 172.200 through 172.204).

22. The licensee is authorized to calibrate radiation detection instruments as a customer service and for **their** own use. *Each radiation detection instrument shall be calibrated as specified in ANSI N323a, 1997 or by the instrument manufacturer.*

23. The licensee is authorized to hold radioactive materials with a physical half-life of less than or equal to 120 days for decay in storage before disposal in ordinary trash provided:

    (a) Radioactive waste to be disposed of in this manner shall be held for decay in storage for at least 10 half-lives.

    (b) Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.

    (c) Records shall be maintained of the disposal of licensed materials made by decay in storage. These records shall be sufficient to demonstrate compliance with this license condition and shall be retained for three years after the record is made.

24. At least 14 days before initiating activities at a temporary job site, including military or former military sites where the temporary job site is not under federal exclusive jurisdiction, the licensee shall notify, in writing, the California Department of Public Health, Radiologic Health Branch. The notification shall include the following information:

    (a) Site-specific radiological procedures if they have not been previously approved by the Department of Public Health.

    (b) Estimated type, quantity, and physical/chemical forms of radioactive material.

    (c) Specification of the site location.

    (d) Description of project activities that are planned for the site, including management and disposition of radioactive material.

    (e) Estimated project start date and duration of project.

    (f) Name, address, title, and phone number of a point of contact for the person managing radiological operations at the temporary job site.

Within 30 days of completing activities at each job site, the licensee shall notify, in writing, the California Department of Public Health, Radiologic Health Branch, regarding the radiological status of the temporary job site and the disposition of any licensed radioactive material.

25. This license does not authorize the use of licensed material at temporary job sites for uses already specifically authorized by a customer's license. If a customer also holds a license issued by the NRC or an Agreement State, the licensee shall establish a written agreement between the licensee and the customer specifying which licensee activities shall be performed under the customer's license and supervision, and which licensee activities shall be performed under the licensee's supervision pursuant to this license. The agreement shall include a commitment by the licensee and the customer to ensure safety, and any commitments by the licensee to help the customer clean up the temporary job site if there is an accident. A copy of this agreement shall be included in the notification required by License Condition 24.

26. The licensee shall maintain records of information important to decommissioning each temporary job site at the applicable job site pursuant to Title 17, California Code of Regulations, Section 30256. The records shall be made available to the Department for inspection and to the customer upon request during decommissioning activities, and shall be transferred to the customer for retention at the completion of activities at a temporary job site.

27. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material so that at no time will the total quantity of radioactive material possessed require financial surety for decommissioning in accordance with the **Title 17 California Code of Regulations (17 CCR)** Section 30195.1. A value of 3.7 MBq (100 μCi) is assigned to cobalt-57 to supplement 17 CCR Section 30197.7.

28. The licensee shall monitor occupational intakes of radioactive material by, and assess the committed effective dose equivalent to, individuals who may have exceeded or are likely to exceed, the limits specified in Title 10, Code of Federal Regulations, Part 20, Section 20.1502 (b). Suitable and timely measurements used for determination of such internal exposures shall be performed as specified by Section 20.1204.

29. In accordance with California Health and Safety Code Section 115000.1(h), the licensee shall annually report the radioactive waste inventory held in storage on December 31 of each year and all manifests of Low Level Radioactive Waste (LLRW) shipments to licensed LLRW disposal facilities made during the year to the Department via the online LLRW Tracking System at https://llrwts.cdph.ca.gov/.

30. At least 30 days prior to vacating any address of use listed in Condition 10 of this license, the licensee shall provide written notification of intent to vacate to the California Department of Public Health, in accordance with Title 17, California Code of Regulations **(17 CCR)**, Section 30256 (b). Control of all licensed areas must be maintained until such areas are released by the Department for unrestricted use or the license is terminated, in accordance with Title **17 CCR** Section 30256 (j).

31. A copy of this license and a copy of all records and documents pertaining to this license shall be maintained available for inspection at 6397 Nancy Ridge Drive, Suite B, San Diego, CA.

Issued for the State of California Department of Public Health

Date: November 20, 2023 By: Thomas Moore

Radiologic Health Branch
MS 7610, P.O. Box 997414
Sacramento, CA 95899-7414