

RADIATION CONSULTANTS, INC.

RADIOLOGICAL SAFETY / HEALTH PHYSICS SERVICES

(Texas License No. LD2179)



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PROFESSIONAL PROFILE**BRUCE E. BRISTOW***Health Physicist***Fields of Competence**

Industrial radiation safety compliance; radioactive materials licensing and registration; radiation safety training; NORM monitoring, evaluation and training; regulatory compliance and analysis; radiation safety program development; shielding evaluation and design; contamination monitoring; decontamination; radioactive waste management; laboratory analysis of leak tests; radionuclide identification; design and development of radiation safety training programs.

Experience Summary

Twenty-four (30) years of experience in practicing and supervising health physics projects. Extensive project experience in both plant locations and corporate headquarters. In-depth experience in practical health physics applications: Design, development and management of all phases of radiation safety programs. Participation in regulatory development process, as well as compliance and management conferences at both the state and federal levels. Extensive experience in the development and conduct of worker training programs to meet regulatory requirements. Laboratory experience includes radionuclide analysis and calibration of radiation monitoring equipment. Over 15 years experience in the evaluation and monitoring of NORM, as well as worker training for field protection.

Credentials

- Physical Science, University of Houston, Clear Lake, 1979.
- Advanced Radiological Health, University of Texas Health Science Center, San Antonio, 1987.
- Indoor Radon, Colorado School of Mines, 1988.
- NORM, Radiation Technical Services, 1992.

Professional Affiliations

Health Physics Society, National Level, South Texas Chapter of the Health Physics Society, Texas Safety Association

Key Projects/Accomplishments

- Children's Nutritional Research Center, Houston, Texas. Directed health physics applications during the pre-design phase of the Low Background Facility and Magnetic Resonance Facility.
- Study of Ra-222 in NG and LPG industries. Project included analysis of Texas Gulf Coast and Texas Panhandle locations with recommendations for exposure reduction.
- Presentation on 10 CFR 20 implications for industry, before the 1992 Texas State Conference on the Regulation of Radiation.

- Invited to participate in various aspects of radiation protection in Russia and Ukraine as part of the Citizen Ambassador Program delegation to the Commonwealth of Independent States.
- Presentation on radiation safety in plant environments before the Gulf Coast Industrial Hygiene Council in April 1993.
- Author of two books, *Radiographer's Study Guide*, 1986, and *Radiation Safety Meeting Handbook*, 1989, Radiation Consultants, Inc.
- Senior producer of a training video, *Using the Inverse Square Law*, Radiation Consultants, Inc., 1992.

Special Appointments

- Texas State Technical Institute's Nuclear Technology School, Industry Cooperative Committee for the term ending 1984 and again for 1988 and 1996.
- Health Physics Society Standards Committee, appointment to the NORM Working Group in 1992.
- Recommended to the Governor of Texas for appointment to the Texas Radiation Advisory Board in 1985.

RADIATION CONSULTANTS, INC.

Consulting • Training • Licensing Assistance • Radiological Program Audits • Records Management
Leak Testing • Instrument Calibrations • Radiological Surveys • Dose Calculations • Emergency Assistance



Department of State Health Services

RADIOACTIVE MATERIAL LICENSE

Pursuant to the Texas Radiation Control Act and Texas Department of State Health Services (Agency) regulations on radiation, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess and transfer 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 Agency now or hereafter in effect and to any conditions specified below.

LICENSEE			This license is issued in response to an application	
1. Name RADIATION CONSULTANTS INC			Dated: March 25, 2011	
2. Address ATTN BRUCE E BRISTOW			Signed By: Bruce Bristow	
P O BOX 787			3. License Number L02179	Amendment Number 40
DEER PARK TX 77536			PREVIOUS AMENDMENTS ARE VOID	
RADIOACTIVE MATERIAL AUTHORIZED			4. Expiration Date April 30, 2021	
5. Radioisotope A. Cs-137	6. Form of Material A. Sealed source (IRL Series 2, 3M Model 4P6E, 4P6S, EZ Models 193, 225, NER-570 Series, NER-580 Series; QSA Model CDC 800 Series; J.L. Shepherd Model 6810)	7. Maximum Activity A. 1 source not to exceed 330 millicuries	8. Authorized Use A. Survey instrument calibration using J.L. Shepherd & Associates Model 10 Portable Calibrator.	
B. Any radioactive material	B. Leak test samples	B. As obtained to perform tests for leakage and/or contamination Total: 1 millicurie	B. To perform analyses of tests for leakage and/or contamination of sealed sources and devices containing sealed sources.	

9. Radioactive material shall only be stored and used at:

<u>Site Number</u>	<u>Location</u>
000	Deer Park - 2017 Westside Drive

10. The authorized place of use is at temporary sites, in areas not under exclusive Federal jurisdiction, throughout Texas.

11. Each site shall maintain documents and records pertinent to the operations at that site. Copies of all documents and records required by this license shall be maintained for Agency review at Site 000.

12. Radioactive material shall not be stored or used at a permanent site unless that site is specifically authorized on this license. A site is considered permanent if radioactive material is stored and/or used at that location for more than 90 days in any twelve-month period.



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13. The licensee shall comply with the provisions (as amended) of Title 25 Texas Administrative Code (TAC) §289.201, §289.202, §289.203, §289.204, §289.205, §289.251, §289.252, and §289.257.
14. The individual designated to perform the functions of Radiation Safety Officer (RSO) for activities covered by this license is **Bruce Bristow**.
15. Sealed sources containing radioactive material shall not be opened or removed from their respective source holders.
16. The licensee is authorized to distribute their leak/wipe test kit Model RC-1 to customers and to subsequently analyze the leak/wipe sample.
17. The licensee shall maintain, for inspection by the Agency, appropriate records for verification of reported leak test results and instrument calibration.
18. The licensee is authorized to pick up, package and transport radioactive waste to an authorized waste disposal firm in accordance with procedures dated **March 2011**. Radioactive waste is not authorized to be stored by the licensee or kept in the licensee's vehicle for longer than 12 hours.
19. In accordance with correspondence and procedures dated **March 2011**, the licensee is hereby authorized to perform commercial radiation survey instrument calibration. The calibrations shall be performed only by **Bruce Bristow**.
20. The licensee is authorized to conduct a radiation safety course for well loggers in accordance with provisions of 25 TAC §289.253. The individual authorized to perform the above training is **Bruce Bristow**.
21. In accordance with 25 TAC §289.255(u)(12)(B), the licensee is authorized to retrieve disconnected sources or sources that cannot be returned by normal means to a fully shielded position or properly secured. Source retrieval activities shall be performed under the direct supervision and in the physical presence of **Bruce Bristow**.
22. The licensee is authorized to perform the service of fixed gauge installation and to supervise such activities in accordance with procedures dated **March 2011**.
23. The licensee is authorized to conduct a radiation safety course for industrial radiographers in accordance with provisions of 25 TAC §289.255. The individual authorized to perform the above training is **Bruce Bristow**.
24. The licensee is authorized to perform emergency decontamination and to supervise such activities in accordance with procedures dated **March 2011**.



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25. In accordance with 25 TAC §289.252(x)(3) the licensee is authorized to possess and use radioactive material listed in Parts A and B of conditions 5, 6, 7 and 8 at the residential location listed as Site 000 in condition 9.
26. Except as specifically provided otherwise by this license, the licensee shall possess and use the radioactive material authorized by this license in accordance with statements, representations and procedures contained in the following:

application dated March 25, 2011.


Title 25 TAC §289 shall prevail over statements contained in the above documents unless such statements are more restrictive than the regulations.

RRF:rrf

FOR THE DEPARTMENT OF STATE HEALTH SERVICES

Date

April 19, 2011


Ray Fleming, Program Coordinator
Industrial Licensing Program