U.S. Nuclear Regulatory Commission Division of Fuel Cycle and Material Safety Washington, DC 2,555 Attn: John Lubinski

Per request of Ann Wheaton.

Please find enclosed a copy of our current license indicating the General License provisions for both models of the Ni63 detectors which we build and distribute.

Carlton Lorfing

R. S. O.

9903190076 920724 PDR RC * PDR

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RADIOACTIVE MATERIAL LICENSE

Pursuant to the Texas Radiation Control Act and Texas Health Department 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 Texas Department of Health now or hereafter in effect and to any conditions specified below.

LICENSEE			This license is issued pursuant to and in accordance with a letter	
1. Name TREMETRICS Inc. Attn: Mr. Carlton Lorfing 2. Address 2215 Grand Avenue Parkway Austin, Texas 78728		Dated: May 19, 1992 Signed by: Carlton Lorfing		
		3. License Number L01186	Amendment Number	
			PREVIOUS AMEND	MENTS ARE VOID
RADIOACTIVE MATERIAL AUTHORIZED			4. Expiration Date April 30, 1996	
5. Radioisotope	6. Form of Material	7. Maximum Activity*	8. Authorized Use	The second secon
A. H-3	A. Sealed source (USRC Model 508-3).	A. No single source to exceed 260 mCi	A. Research and development, demonstration, servicing, and distribution to authorized recipients in the licensee's gas chromatographs.	
B. Ni-63	B. Sealed source (USRC Model LAB-784, NEN Model NER-004 or A/S Model NBC).	B. No single source to exceed 20 mCi	B. Research and development, demonstration, servicing, and distribution to authorized recipients in the licensee's Model 111019 or 115500 detector cells.	
C. Any radioactive material with atomic number less than 84.	C. Neutron activated foils and electronic	C. Total of all isotopes not to exceed 10 mCi	C. Research and development of electronic devices.	
D. Ni-63	D. Sealed sources.	D. No single source to exceed 20 mCi	D. Research and of gas chromatog devices.	
E. Ni-63	E. Sealed source (USRC Model LAB-784 or NEN Model NER-004 or A/S Model NBC).	E. No single source to exceed 20 mCi	E. Distribution to persons generally licensed pursuant to TRCR 41.22(d) in the licensee's Model 111619 or 115500 detector cells.	
F. Ni-63	F. leak test samples.	F. As acquired in leak test samples.	F. Leak test ana licensee's leak 111131-0001.	

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9. Radioactive material shall be stored and used at:

Site Number Location

000 Austin - 2215 Grand Avenue Parkway

001 TERMINATED Austin - 6500 Tracor Lane.

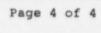
- 10. The authorized place of use is also at temporary sites throughout Texas.
- 11. The licensee shall comply with the provisions of Parts 11, 12, 13, 21, 22 and 41 of the Texas Regulations for Control of Radiation (TRCR).
- 12. The individual designated to perform the functions of Radiation Safety Officer (RSO) for activities covered by this license is Carlton Lorfing.
- 13. Radioactive material shall only be used by, or under the supervision of, individuals designated by the RSO.
- 14. Sealed sources of radioactive material, nickel-63 foil, and/or plated alpha emitting sources shall be tested for leakage and/or contamination in accordance with the provisions of TRCR 11.7.
- 15. Notwithstanding TRCR 11.7(c), the interval of testing for leakage of the sources described in Parts B and E of Conditions 5, 6, 7 and 8 shall not exceed three years.
- 16. Detector cells containing hydrogen-3 (tritium) foils shall only be used in conjunction with a properly operating temperature control mechanisms which prevent foil temperatures from exceeding 225° Celsius for titanium tritide foils and 325° Celsius for scandium tritide foils. Detector cells shall be installed so that their exhausts are vented to the outside atmosphere, to vented hood systems, or to process streams.
- 17. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in the TRCR 21.203(a), the licensee is hereby authorized to label detector cells and cell baths, containing radioactive material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
- 18. The licensee is authorized to perform tests for leakage and/or contamination at customer sites throughout Texas and to distribute their leak/wipe test kit Model 111131-0001 to customers for the licensee's subsequent analysis. Such tests shall be capable of detecting 0.005 microcuries of contamination on the test sample and the results of such tests shall be provided to the customer in terms of microcuries.
- 19. The licensee is authorized to install its electron capture detector cells in the customer's gas chromatographs on a custom basis subject to the authorization on the customer's radioactive material license.

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- 20. The licensee shall conduct a physical inventory every six months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two years from the date of the inventory for inspection by the Agency and shall include the quantities and the kinds of radioactive material, location of sealed sources, and the date of the inventory.
- 21. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to use or transfer as a sealed source. If the inspection or test reveals any construction defects or 0.005 microcuries or greater of contamination, the source shall not be used or transferred as a sealed source until it has been repaired, decontaminated and retested.
- 22. The licensee shall not transfer radioactive material to other persons until it is verified that the recipient is authorized to possess the type and amount of material to be transferred.
- 23. Each device distributed under this license, as a generally licensed device, shall be accompanied by at least the following or substantially similar statements:
 - A. Persons who receive, use, or transfer this device are subject to a general license or equivalent regulations of the United States Nuclear Regulatory Commission (NRC), or an Agreement State.
 - B. Abandonment or disposal of the device is prohibited unless it is
 - transferred to a person specifically licensed by the NRC.
 C. Operation of this device is prohibited if there is failure of or damage to the shielding, source containment, or "on-off" mechanism.
 - D. Dismantling, maintenance, and testing of the radioactive material shielding or containment shall be performed only by specifically licensed by the NRC or by an Agreement State.
 - E. This device shall be tested for radioactive leakage at intervals not to exceed 36 months.
 - F. Loss, theft, or transfer of this device and failure or damage to the shielding, or source containment shall be reported to the NRC or appr iate Agreement State regulatory agency.
 - of any label from this device is prohibited. G. Remo
- 24 The licensee shall furnish a copy of the TRCR 41.22, 21.402 and 21.403 to each general licensee to whom the device is transferred.
- 25. The licensee shall test each device distributed under this license for leakage or contamination of radioactive material and proper operation of the "on-off" mechanism and indicator, if any, at the time installation of the device.
- 26. The licensee shall report to the Agency all transfers of devices distributed under this license to persons generally licensed under the TRCR 41.22. Such report shall identify each general licensee by name and address, the type of device transferred, and the quantity and type of radioactive laterial contained in the device. The report shall be submitted within 30 days after the end of each calendar quarter in which any such device is transferred to a generally licensed person.



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27. 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 April 10, 1991, letter received June 21, 1991, and letter dated January 31, 1992 and May 19, 1992.

The TRCR shall prevail over statements contained in the above documents unless such statements are more restrictive than the regulations.

FRH: mr

FOR THE TEXAS DEPARTMENT OF HEALTH

Date _____ July 24, 1992

Administrator, Licensing Branch



Texas Department of Health

David R. Smith, M.D. Commissioner

1100 West 49th Street Austin, Texas 78756-3189 (512) 458-7111

Robert A. MacLean, M.D. Deputy Commissioner

Radiation Control (512) 834-6688

July 24, 1992

Mr. Carlton Lorfing Tremetrics Inc. 2215 Grand Avenue Parkway Austin, Texas 78728

Dear Mr. Lorfing:

We have enclosed Amendment No. 30 to Radioactive Material License No. L01186 in response to your request dated May 19, 1992. Please note that we did not change Condition 23 of your license, nor have we changed the Registry in the manner you suggested. As you can see by the copy of Registry No. TX642D101B (enclosed), our wording provides much the same authorizations as your suggested wording with a little more flexibility for both you and your customer. Please also notice that we have provided additional explanation to the U.S. Nuclear Regulatory Commission concerning the construction similarities of the Model 111019 and 115500 and the process of converting existing specifically licensed gas chromatographs containing the Model 111019 detector cells to generally licensed devices.

If we may answer any questions or be of any assistance, please do not hesitate to call or write.

Sincerely,

Floyd R. Hamiter, Chief Industrial Uses Program

Division of Licensing, Registration

and Standards

Bureau of Radiation Control

Enclosures