

**MATERIALS LICENSE**

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, 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 byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	In accordance with the letter dated <b>May 30, 2001</b>
1. Proxtronic, Inc.	3. License No. 45-25323-01
2. <b>7200 Fullerton Road, Unit B-1 Springfield, Virginia 22150</b>	is amended in its entirety to read as follows:
	4. Expiration Date: March 31, 2005
	5. Docket No. 030-33777

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Cesium 137	A. Amersham Model X-38, and Gulf Nuclear Model CSV or other sealed sources registered pursuant to 10 CFR 32.210, or an equivalent Agreement State regulation	A. Not to exceed 92.5 gigabecquerels (GBq) [2.5 curies (Ci)] per source and 277.5 GBq (7.5 Ci) total.
B. Strontium 90	B. Sealed sources (Amersham Models SIF.31, SIF.32)	B. Not to exceed 37 megabecquerels (MBq) (1 millicurie)
C. Cesium 137	C. Sealed source (Amersham Corporation Model No. CDC.711M series)	C. Not to exceed 222 GBq (6 Ci)
D. Strontium 90	D. Sealed source (Amersham Models SIF.31 or SIF.32)	D. Not to exceed 37 MBq (1 millicurie)

9. Authorized Use:

- A. In Williston Elin Model 2001 Series Irradiator for the irradiation and/or calibration of thermoluminescent dosimeters (TLDs), and in a custom shuttered downward beam irradiator and/or calibrator utilizing a GNI, Model CSV gauging device, for x-ray film or film badges.
- B. In a Panasonic Model UD717 TLD reader for dosimetry measurements and calibrations of TLDs.
- C. For use in a Williston Elin Model No. WE 2001 Series self shielded irradiator for the purpose of irradiating TLDs.
- D. For use in a Panasonic Model No. UD-717A Incorporated TLD calibrator.

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## CONDITIONS

- 10. Licensed material may be used only at the licensee's facilities located at 7200 Fullerton Road, Unit B-1, Springfield, Virginia.**
11. Licensed material shall be used by, or under the supervision of John B. Davis, or Ronald C. McLendon.
12. The Radiation Safety Officer for this license is John B. Davis.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
- B. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.
- C. Sealed sources need not be leak tested if they contain not more than 3.7 megabecquerels [100 microcuries ( $\mu\text{Ci}$ )] of beta and/or gamma emitting material or, are in storage, and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- D. The leak test shall be capable of detecting the presence of 185 becquerels (Bq) (0.005  $\mu\text{Ci}$ ) of radioactive material on the test sample. If the test reveals the presence of 185 Bq (0.005  $\mu\text{Ci}$ ) or more of removable contamination, a report shall be filed with the U. S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(b)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U. S. Nuclear Regulatory Commission, Region II, Division of Nuclear Materials Safety, Materials Licensing/Inspection Branch, 61 Forsyth Street, S.W., Suite 23T85, Atlanta, Georgia 30303. The report shall specify the source involved, the test results, and corrective action taken.
- E. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

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14. Installation, initial radiation surveys, relocation, removal from service, of the irradiator shall be performed only by the licensee, or by persons specifically licensed by the Commission or an Agreement State to perform such services.
15. The procedures contained in the manufacturer's instruction manual for the irradiator shall be implemented and a copy of the manual shall be available to each person using or having responsibility for the device.
16. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Removal, replacement, and disposal of sealed sources in the irradiator shall be performed by persons specifically license by the Commission, or an Agreement State to perform such services.
17. Notwithstanding Condition 16. above, John B. Davis and Ronald C. McLendon may remove and install sealed source holders from the irradiator, in accordance with the manufacturers instructions, provided temporary shielded storage does not exceed seven days.
18. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
19. The irradiator shall be tested for the proper operation of the shielding mechanism and indicator, before each use, or at such longer intervals as specified by the manufacturer.
20. The licensee shall operate the irradiator within the manufacturer's specified temperature and/or environmental limits, such that the shielding and shutter mechanism of the source holder are not compromised.
21. The licensee shall assure that the shielding mechanism is locked in the closed position during periods when a portion of an individual's body may be subject to a direct radiation beam. The licensee shall review and modify as appropriate, its "lock-out" procedures whenever the sources cannot be shielded, and obtain the device manufacturer's recommendations, before attempting to re-shield the sources.
22. The licensee shall conduct a physical inventory every six months to account for all sources and/or devices received and possessed under the license.

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23. Prior to initial use and after installation, relocation, dismantling, alignment, or any similar activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above and below the irradiator with the shutter open.

This survey shall be performed only by John B. Davis or Ronald C. McClendon, or other persons authorized to perform such services by the Commission or an Agreement State.

24. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The U. S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Application and Letter dated January 19, 1995 [new license - Williston Elin WE 2001 TLD irradiator - SSD NR-8078-D-801-S]
- B. Application and Letter dated August 2, 1995 [amendment to add custom GNI/CSV calibrator]
- C. Letters dated:
- 1) August 3, 1998 [application for Panasonic UD 717 extremity TLD reader - SSD GA-161-D-103-S]
  - 2) May 20, 1999 [Application dated 5/21/99 requesting amendment to add a Panasonic Auto Irradiator Model No. UD-794-A and a Williston Elin Model 2001 Series irradiator]
  - 3) June 17, 1999 [Additional information clarifying 5/20/99 amendment request]
  - 4) May 17, 2000 [Add TLD calibrator (SR-90)]
  - 5) May 25, 2000 [Additional information]
  - 6) May 30, 2001 [Change in address and location]**
  - 7) August 2, 2001 [Additional information]**

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

DATE August 7, 2001 \_\_\_\_\_

BY */RA/ T. Decker for* \_\_\_\_\_

Wade T. Loo  
Region II, Division of Nuclear Materials Safety  
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