LASER PRODUCTS CORP.
246 Ivy Court, Orange, NJ 07050 · (201) 335-2900

AUGUST 1, 1987

US NUCEAR REGULATORY COMMISSION
REGION I 631 PARK AVE
KING OF PRUSSIA, PA 19406

ATTN: JOHN GLENN, PH.D. CHIEF

RE: APPLICATION FOR TLMPORARY LICENSE
TO STORE FOR DISPOSAL I-131 HIPPURAN

DEAR DR. GLENN;

AS PER OUR TELEPHONE CONVERSATION LASER PRODUCTS CORPORATION WOULD LIKE TO APPLY FOR TEMPORARY LICENSE TO STORE AND DISPOSE OF LESS THAN 100 MILLI CURIES OF I-131 (IODINE). AS PER OUR DISCUSSION WE WILL SURVEY THE PACKAGE ON ARRIVAL VIA FEDERAL EXPRESS INCLUDING THE CARRIER. WIPE TEST WILL BE TAKEN ALSO OF THE PACAKGES AND TESTED AT EAST ORANGE GENERAL HOSPITAL SPECTROSCALER (ANSI). WE WILL USE A CALIBRATED SURVEY METER WITH A THIN WINDOW FOR INITIAL SURVEY AND WIPE TEST. WE WILL STORE THE PACKAGES UNOPENDED INSIDE A FUME HOOD. THE FUME HOOD WILL BE OPERATIONAL AT ALL TIMES DURING OCCUPANCY OF THE ROOM. THE MATERIAL PACKAGES OF LEAD LINED LIQUID VIALS OF IODINE I31 HIPPURAN WILL NOT BE OPENED AND WILL BE STORED IN DECAY FOR 20 HALF LIVES. ALL MATERIAL AT THE END OF THE 20 HALF LIVES WILL BE SURVEYED BY A PHYSICIST, LABELS OBLITERATED AND RECORDS OF THE SURVEYS AND WIPE TEST WILL BE HELD AVAILABLE FOR INSPECTORS.

THANK YOU FOR YOUR TIME AND CONSIDERATION IN AIDING US AT THIS TIME.

SINCERELY,

ERIC CHEETHAM
PRESIDENT

24. PERSONNEL MONITORING DEVICES

TYPE (Check appropriate box)			SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY		FILM		
		TLD		
		OTHER (Specify)	VICTOREEN 200MR POCKET DOSIMETER	CHARGED
b. FINGER		FILM		
		TLD		
		OTHER (Specify)		
c. WRIST		FILM		
		TLD		
		OTHER (Specify)		

d. OTHER (Specify)

25. FOR PRIVATE PRACTICE APPLICANTS ONLY

a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL

NAME OF HOSPITAL

MAILING ADDRESS

CITY | STATE | ZIP CODE

b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.

c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.

26. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Parts 30 and 35, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

a. LICENSE FEE REQUIRED *(See Section 170.31, 10 CFR 170)*

(1) LICENSE FEE CATEGORY: OTHER

(2) LICENSE FEE ENCLOSED: $ ~~110.00~~ 230.00

b. APPLICANT OR CERTIFYING OFFICIAL *(Signature)*

(1) NAME *(Type or Print)*: ERIC CHEETHAM

(2) TITLE: PRESIDENT

c. DATE: AUGUST 7, 87

NRC FORM 313M (9-81)

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313M. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).

2. **PRINCIPAL PURPOSE(S)** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30-36 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.

3. **ROUTINE USES** The information may be used: (a) to provide records to State health departments for their information and use; and (b) to provide information to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for a NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you. A copy of the license issued will routinely be placed in the NRC's Public Document Room, 1717 H Street, N.W., Washington, D.C.

4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed.

5. **SYSTEM MANAGER(S) AND ADDRESS** Director, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

Survey Meter Spot Check

Date	Battery Status	Check Source	Meter reading Mr/Hr	D.O.C.	Serial #	Comment	Init

LANDAUER

201-

WASTE DISPOSAL PROCEDURES

1. Liquid Waste will be disposed of

   Check as appropriate

   ___ By commercial waste disposal service (See also No. 4 below)
   ~~X~~ In the sanitary sewer system in accordance with Section 20.303 of 10 CFR Part 20.
   ___ Other (specify):

   ~~All material is sent back to Syncor.~~

2. Mo-99/Tc-99m generators will be:

   Check as appropriate

   ___ Returned to the manufacturer for disposal
   ___ Held for decay until radiation levels as measured with a low-level survey meter and with all shielding removed, have reached background levels. All radiation labels will be removed or obliterated and the generators disposed of as normal trash. (Note: this method of disposal may not be practical for generators containing long-lived radioactive contaminants).
   ___ Disposed of by commercial waste disposal service (See also No. 4 below).
   ___ Other (specify): _____

3. Other Solid Waste will be:

   Check as appropriate

   X Held for decay until radiation levels as measured with a low-level survey meter and with all shielding removed have reached background levels. All radiation labels will be removed or obliterated and the waste will be disposed of in the normal trash.
   ___ Disposed of by commercial waste disposal service (See also No. 4 below)
   ___ Other (specify): ~~Returned to Syncor, Inc. Fairfield, NJ~~

4. The commercial waste disposal service used will be: _____

   _____
   (Name) (City) (State)

   NRC/Agreement State License No. PENDING

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. Storage of radioactive waste behind adquate shielding

. Radioactive waste should be held for 10 half lives of the longest lived radiosiotope to be disposed

. Monitoring performed with a GM meter prior to disposal for background levels

. All radioactive material labels removed or obliterated

. Records maintained for survey of waste and disposal date

INSTRUMENT: ____________

____________ SERIAL NO:

Last Calibration Date of R/A Material being Disposed	Radioactive Material	Background	mR/hr Surface	Disposal Date	Initial

7/30/87

Item 18 ~~1/4/85~~

SURVEY PROCEDURES

A. All elution, kit preparation, and dose preparation areas will be surveyed daily with a G.M. survey meter and decontaminated if necessary as specified in Item 1 "Laboratory Rules for the Use of Radioactive Material", Section II.

B. Laboratory areas where only small quantities of radioactive material are used (less than 200 uCi) will be surveyed monthly.

C. All other laboratory areas will be surveyed weekly by the nuclear medicine staff and monthly by consultant radiation physicist.

D. The weekly and monthly survey will consist of:

1. A measurement of radiation levels with a survey meter sufficiently sensitive to detect 0.1 mR/hr.

2. A series of wipe tests to measure contamination levels. The method for performing wipe tests will be sufficiently sensitive to detect the contamination limits listed in Section F. (Page 2)

E. A permanent record will be kept of all survey results, including negative results. The record will include:

1. Location, date, and identification of equipment used.

2. Name of person conducting the survey.

3. Drawing of area surveyed, identifying relevant features such as active storage areas, active waste areas, etc..

4. Measured exposure rates, keyed to location on drawing (point out rates that require corrective action).

5. Detected contamination levels, keyed to locations on drawing.

6. Corrective action taken in the case of contamination or excessive exposure rates, reduced contamination levels or exposure rates after corrective action, and any appropriate comments.

F. Ideally, any contamination more than a few dpm above background should be cleaned up; however the following table specifies limits of acceptable levels of contamination for common medical radionuclides:

Type of Surface	I-131, Mo-99, Se-75, P-32	Tc-99m, I-125, Cr-51, Co-57, Ga-67, Tl-201, I-123
	dpm/100 cm^2	dpm/100 cm^2
1. Unrestricted Areas	220	2200
2. Restricted Areas	2200	22000
3. Personal Clothing worn outside restricted areas	220	2200
4. Protective clothing worn only in restricted areas	2200	22000
5. Skin	220	2200

Contamination levels exceeding those listed above warrant establishment of a contamination zone until contamination is removed. For fixed contamination; that which after repeated attempts fails to reduce levels significantly, 5 times the levels listed above in lines 1 and 2 are acceptable without isolation of the area.

Exact contamination on a wipe can be quantized if a NaI well crystal is possessed. Where no NaI well crystal exists the following instrumentation will be employed to assess contamination:

In performing monthly department surveys the consultant radiation physicist estimates the dpm content of a wipe employing a ~1000 dpm Co-57 reference source and the NaI crystal detector contained in the Rectilinear Scanner, Thyroid Uptake Probe, or Gamma Camera.

In daily and weekly surveys the nuclear medicine staff assesses the removable contamination extent contained in a wipe by employing a G.M. Survey Meter (with the beta shield removed). Wipes are counted in a low background area, bringing the detector window as close as possible to the wipe. Each wipe will be counted for a minimum of 15 seconds allowing 15 seconds between counts for the meter to equilibrate. A wipe that registers a reading that is larger than background levels will warrant decontamination procedures.

03030148

BETWEEN: C. James Holloway, Chief
License Fee Management Branch
Office of Resource Management

John E. Glenn, Chief
Nuclear Materials Safety & Safeguards Section B
Division of Radiation Safety and Safeguards

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: Laser Products Corp.

Application Dated: 8/4/87

Control No.: 107631

License No.: New Appl.

2. FEE ATTACHED

Amount: $230

Check No.: 005566

3. COMMENTS

Expedite

Signed [signature]

Date 8/5/87

B. LICENSE FEE MANAGEMENT BRANCH

1. Fee Category and Amount: 3P $230

2. Correct Fee Paid. Application may be processed for:

Amendment _____

Renewal _____

License →

Signed S. Kimberly

Date 8/10/87

REGION I FORM 213
(MARCH 1987)