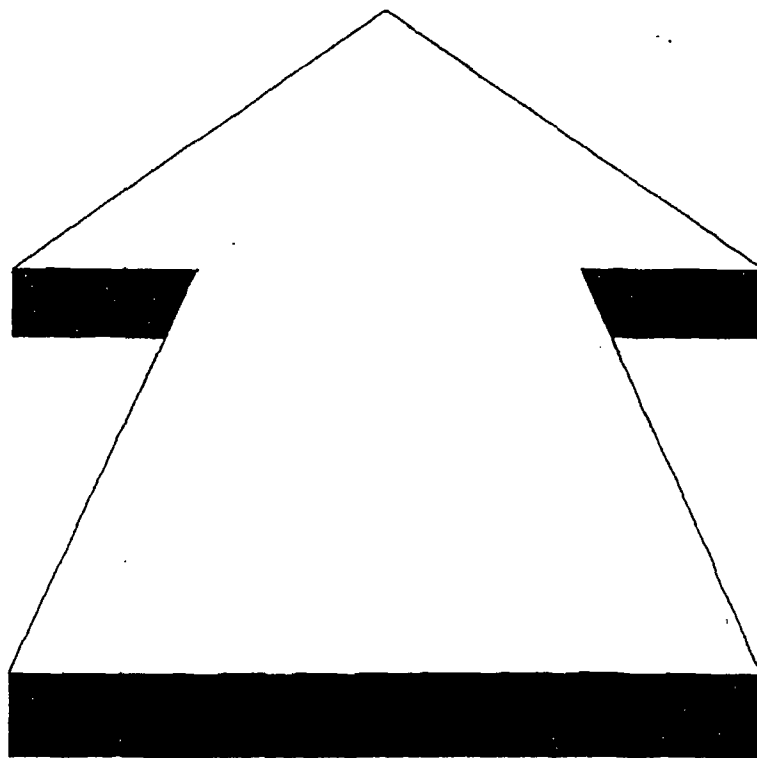


Original Documents for License # 06-30423-01

Have Been Copied and Transferred to License # 31-30746-01

Date: 6/25/04

Initials: amy



doc/trans/form

Information in this record was deleted in
accordance with the Freedom of Information Act.
Exemptions 6
FOIA/PA 202-0196

NMSS/RGN Materials -002



MEGARAD, INC.

417 East 64th Street, New York, N.Y., 10021
tel.: (212) 472-0840; fax: (212) 288-0916

February 18, 1999

Ms. Judith A. Joustra,
Senior Health Physicist
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

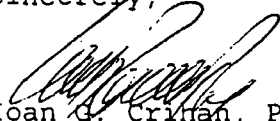
Re: Docket No. 030-34615
Control No. 125298

Dear Ms. Joustra:

Attached is an amended Item 6 of the above referenced application for radioactive materials license. In performing underwater industrial radiography, we intend to use the radiographic exposure device only in accordance with manufacturer's instructions and we do not intend to modify the exposure device in any way.

If you have any questions regarding these matters, please let me know.

Sincerely,


Ioan G. Crihan, President
Megarad, Inc.

IGC/wp

Encl.

OFFICIAL RECORD COPY

ML 10

125298
FEB 22 1999

COMPLETION OF U.S. NRC FORM 313

APPLICATION FOR RADIOACTIVE MATERIAL LICENSE

Application changed to read:

Item 6: Purpose for which licensed material will be used.

Items 5(a) (i) and 5(a) (ii):

For use in industrial radiography utilizing compatible industrial radiographic exposure devices, such as Amersham Model 865, manufactured and distributed in accordance with 10 CFR 34.20 requirements of the U.S. NRC regulations or equivalent Agreement State regulations and registered in the Sealed Source and Device Registry.

Associated Equipment:

All associated equipment will be compatible with the radiographic exposure devices and sealed sources which will be used. Radiographic exposure devices will be returned to the manufacturer for source exchanges.

Item 5(a) (ii):

For use as shielding material.

020-34615



**Longview Inspection
Cramer & Lindell Division**

277 W. Main Street
Niantic, CT 06357-1018
(860) 691-4614
FAX (860) 691-4627
(800) 632-7263

Dr. Ioan G. Crihan, D. Eng., PE
Megarad, Inc.
417 East 64th Street
New York, NY 10021

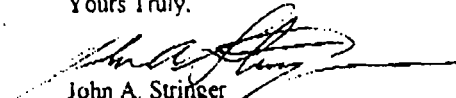
November 24, 1998

Dear Dr. Crihan,

I am pleased to confirm that Longview Inspection is most willing to rent your company an exclusive area within our NRC approved radioactive isotope storage facility. This area would be segregated and secured such that it would be totally under your company's control and would be listed on your license

Administrative details of this arrangement can be worked out at your convenience prior to your requirement.

Yours Truly,



John A. Stringer
Regional Manager

OFFICIAL RECORD COPY

ML 10

125298

MS 16
P-8

July 9, 1998

Ms. Judith A. Joustra,
Senior Health Physicist
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

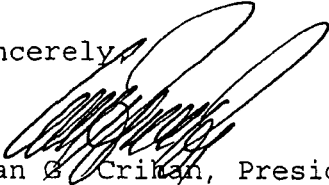
Dear Ms. Joustra:

Re: Docket No. 030-34615
Control No. 125298

Attached are the responses to the request in your letter dated June 10, 1998 for additional information in connection with our license application. The numbers conform to your numbered queries.

If you require additional information, please call or write me.

Sincerely,


Ioan B. Crihan, President
Megarad, Inc.

IGC/wp

Encl.

OFFICIAL RECORD COPY

ML 10

125298
REC'D IN LAT JUL 13 1998

Megarad, Inc.,
277 West Main Street
Niantic, CT 06357-1018

Responses to Judith A. Joustra's queries of June 10, 1998

1. The radiographer/radiographer's assistant field test evaluation, Form MG-15 will be added to Megarad, Inc. Company Procedures Manual (see Attachment A). A completed form will be made up for all students who will use the Amersham Model 865 radiographic exposure device. Form MG-15 will be part of each radiographer and radiographer's assistant training record.
2. Megarad, Inc. will purchase a Xetex Model 335B survey meter or a comparable survey meter prior to the start of Megarad's operations. For underwater use, the survey meter will be enclosed in a water tight housing. Xetex Model 335B meets the requirements of 10 CFR 34.25, Radiation Survey Instruments. A data sheet on Xetex Model 335B is provided in Attachment B.
3. Radiation levels on the outside of Megarad's storage facility at 277 West Main Street, Niantic, CT will be less than 1 mR/h from Megarad's radiographic exposure devices in storage. The remaining information requested in Query 3 is in Attachment C.
4. See Attachment D.

ATTACHMENT A

Form MG-15

RADIOGRAPHER/RADIOGRAPHER ASSISTANT FIELD TEST EVALUATION

Date: _____

Instructor: _____ Certificate # _____

Location: _____

Student evaluated: _____

For position as radiographer/radiographer assistant.

(Indicate which position): _____

Isotope: _____ Activity: _____ Curies SN: _____

Device Manufacturer: _____ Model: _____ SN: _____

Survey Meter Make: _____ Model: _____ SN: _____

Date Calibrated: _____ Operation check: Yes _____ No _____

Dosimetry: TLD/film badge # _____

Pocket dosimeter: Yes _____ No _____

Alarming dose rate meter: SN _____ Calibrated: _____

Items Evaluated:

1. Area preparation (posting, barriers, access control) _____
2. Mount film _____
3. Mount camera _____
4. Connect hoses to control unit and camera _____
5. Unlock camera and control unit _____
6. Pressurize Model 865 chamber _____
7. Expose source _____
8. Survey area _____
9. Retract source _____
10. Survey area and camera _____

11. Secure camera and control area _____

Instructor's evaluation:

Student passed / failed field examination.

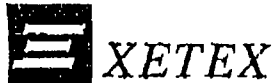
Instructor's signature _____ Date _____

ATTACHMENT B

DATA SHEET ON XETEX MODEL 335B SURVEY METER

SPECIFICATIONS

■ Radiation Detected	X, gamma and beta (greater than 0.25 MeV)
■ Detector	Energy-compensated, halcgen-quenched GM tube
■ Accuracy	+/-15% for digital display +/-1 division for analog display
■ Energy Dependence	+/-15% from 60 keV to 1.3 MeV (see graph)
■ Range	0.1 mR/h to 1000 mR/h
■ Response Time	2 sec nominal for digital display, < 1 sec for analog display
■ Display	Four decade 11n-log analog and four-digit LCD, with display light on demand
■ Alarm	Rate alarm with user-settable threshold (500 mR/h default)
■ Audio	Steady-tone rate alarm, chirp rate proportional to dose rate
■ Controls	Display light on/off, chirp on/off, manual beta slide
■ Operating Temp	-20°C to 50°C
■ Battery	9-volt alkaline transistor type (Included)
■ Battery Life	120 hours in background field
■ Weight	12 oz (340 g) with battery
■ Dimensions	3.04 in x 6.09 in x 0.94 in (77 mm x 155 mm x 24 mm)



A Division of National Nuclear Corporation

1276 Hammerwood Avenue • Sunnyvale, CA 94089
Phone: (408) 745-8854 • Fax: (408) 745-6776

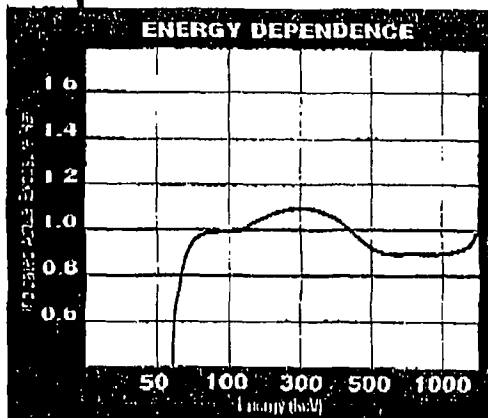
We accept Visa and MasterCard

MODEL 335B MULTI-RATE II

The Multi-Rate II is a versatile analog/digital ratemeter that measures beta and gamma radiation over the four-decade range 0.1 mR/h to 1000 mR/h. A rear-mounted beta slide allows the user to include or exclude beta radiation from the measurement. A rate alarm with a user-settable threshold is also provided.

This rugged, light-weight instrument utilizes a unique liquid crystal display that combines the advantages of a 11n-log analog meter with the precision of the digital presentation. This type of display eliminates difficult logarithmic interpretations and range switching. The user reads the radiation field directly from the digital display, while always having the rapidly updated information from the analog display.

The Multi-Rate II has a speaker with an on/off switch and a display light. The instrument is housed in a durable aluminum case.



ATTACHMENT C

HELLIER

CDI Training • Certification Services • Technical Services

FAX MACHINE LEAD SHEET

SEND FAX TO (PHONE NO.) 212 288 0916

DATE: 7/10/98

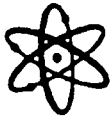
ATTENTION: Dr. Crihan

COMPANY _____

FROM: _____

NUMBER OF SHEETS INCLUDING THIS SHEET 1

MESSAGE: Charles J. Hellier, CEO



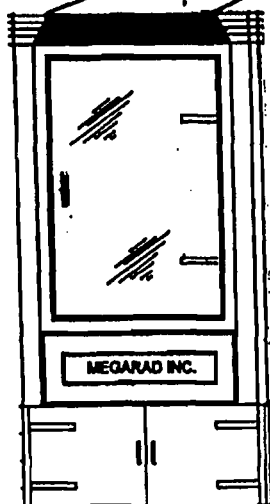
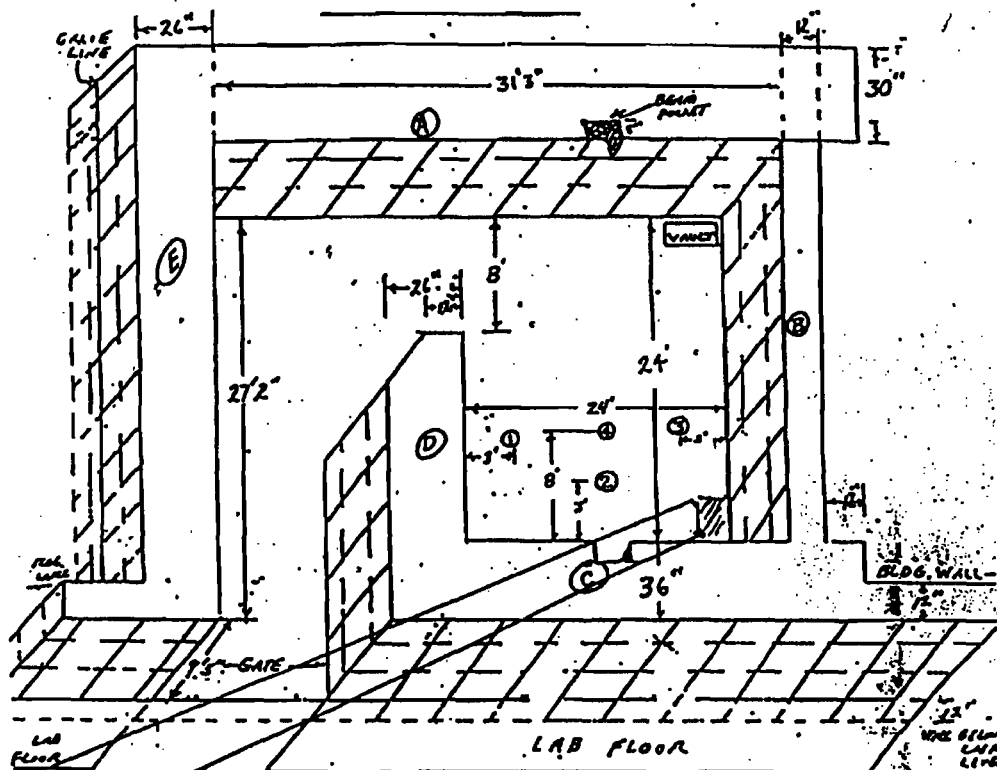
MEGARAD, INC.

417 East 64th Street, New York, N.Y., 10021
tel.: (212) 472-0840, fax: (212) 288-0916

Shooting Cell

FINAL AS BUILT

DIM:



- NOTES:
1. (B) Wall earth backed and under asphalt
 2. Markers ①, ②, ③, & ④ denote source location during room survey.
 3. Roof thickness is 36".

MS 16
P-8

May 18, 1998

Ms. Judith A. Joustra,
Senior Health Physicist
U. S. Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Ms. Joustra:

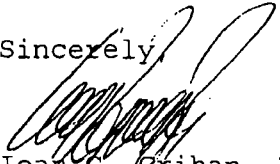
Re: Docket No. 030-34615
Control No. 125298

Attached are the responses to your queries in your letter dated March 26, 1998. Also attached is an amended Megarad, Inc. Company Procedures Manual with the changes incorporated.

I am also enclosing a copy of Device Registration Certificate No. NR-628-D-118-S for the Amersham Model 865 which we plan on using.

If you have any questions regarding these matters, please let me know.

Sincerely,



Ioan G. Crihan, President
Megarad, Inc.

IGC/wp

Encl.

OFFICIAL RECORD COPY ML 10

REC'D IN LAT

125298
MAY 18 1998

Responses to Judith A. Joustra queries of March 26, 1998

1. Item 6 is reworded as follows:

Item 6: Purpose for which licensed material will be used.

Items 5(a)(i) and 5(a)(ii):

For use in compatible industrial radiographic exposure devices, such as Amersham Model 865, manufactured and distributed in accordance with 10 CFR 34.20 requirements of U.S. NRC regulations or equivalent Agreement State regulations and registered in the Sealed Source and Device Registry.

Associated Equipment

All associated equipment will be compatible with the radiographic exposure devices and sealed sources which will be used. Radiographic exposure devices will be returned to the manufacturer for source exchanges.

2. At this time, there is no intention to use Cobalt-60 in radiographic exposure devices. The inclusion of Cobalt-60 in the letter from Hellier, Inc. is strictly for potential future use for which a license amendment will be requested.
3. Add to the Company Procedures Manual Section II the following Paragraph 12:
 12. License cancellation and transfer of licensed activities.
 - 12.1 All sealed sources and radiographic exposure devices owned or leased by Megarad will be returned to the manufacturer before license is canceled.
 - 12.2 A diagram indicating Megarad's storage location will be maintained by Megarad at 277 West Main Street, Niantic, CT 06357-1018. In addition, a diagram indicating Megarad's storage location will be maintained by Hellier, NDT, Cramer and Lindell Division, 277 West Main Street, Niantic, CT 06357-1018.

All records indicating the receipt and transfer of all sealed sources and devices will be maintained by Megarad Inc. with copies at the storage facility. Copies will be

maintained by Hellier, NDT, Cramer and Lindell Division at their Niantic facility.

12.3 No licensed activity will be transferred or assigned without authorization by the U.S. NRC and transfer of diagram and records as specified in Paragraph 11.2 above.

4. This is to state that all radiography will be done underwater.

Company Procedure Manual Section III revised as follows:

A. Daily Operations

Throughout these operations it is assumed that all job sites will involve underwater radiography.

5. Dr. Crihan's experience with Cobalt-60 and Iridium-192 is provided in Attachment A.

6. An additional paragraph 4.3 is to be added to the Company Procedures Manual Section II as follows:

4.3 Experienced radiographer and radiographer's assistant

All experienced radiographers and radiographer's assistants who have worked for other licensee will be given a 16 hour training course as follows:

- Eight hours on Megarad Inc. Company Procedure Manual. The instructors for this course are Dr. Ioan G. Crihan or other designated instructors under his direction.
- An eight hour training course on the Model 865 radiographic exposure device which will consist of four hours on the theory, operation, maintenance and leak test procedures on this device.
- Four hours of practical, hands-on instruction on the Model 865 camera which will include a field test on the safe operation of the device. This course will be given by instructors having experience with the Model 865 camera.

7. Instructors for Radiation Safety Principals will be supplied by Hellier NDT, Cramer and Lindell Division.

8. Practical experience with the Model 865 will be provided by instructors as specified in Item 6 above.

9. An additional paragraph 4.4 will be added to the Company Procedures Manual Section II as follows:

4.4 Annual Refresher Training

Topics for annual refresher training will include, but not limited to the following:

- Operation of Amersham Model 865 for underwater radiography
 - Calculations for Inverse Square Law and radiation attenuation in water
 - Emergency procedures and discussion of incidents
 - Results of field audits
 - Dosimetry results
 - Annual audit findings
 - Transportation procedures for radioactive materials
 - Equipment maintenance
 - Radiation survey techniques
 - Radiation safety principles
 - Security of radioactive sources
 - Maintenance of restricted areas.
10. An audit of the radiation safety program will be conducted by management on an annual basis in accordance with 10 CFR 20.1101 and 10 CFR 34.43(e).
11. To be provided by Dr. Crihan.

Examples:

- NDS Model ND-2000
 - Xetex Model _____ with underwater housing
12. Attached is a diagram indicating the storage facility to be used by Megarad, Inc. for their radiographic exposure devices. Access to the camera will require two keys; the key to the outside door of the storage facility and a key to the storage cabinet. These keys will be maintained by Megarad, Inc. For emergency purposes, keys to Megarad's storage facility will be in a lock box in the possession of Mr. John T. Springer, Director of Hellier NDT operations and will only be given out in case of emergency at the Hellier NDT, Cramer and Lindell Division facility.
13. The Company Procedures Manual Section III, Paragraph A.12.1 will be modified as follows:
- Ensure that locks operate properly and keys are available and operable.
 - Check the air line hose for cracks and cuts and ensure that the correct fittings and regulators are mounted.
 - Verify the operability of the survey meter;

check battery voltage, response and if calibrated within the last six months.

(The remaining Paragraphs 12.1 will be renumbered in the Company Procedures Manual, i.e. 12.2, etc. In addition, attached is Certificate No. NR-628-D-118-S issued June 29, 1994 for the Amersham Model 865. Some of the procedures given in Appendix I of NUREG 1556 pertain to the Gamma Industries Mariner Pipeliner and are not applicable to the Amersham Model 865 underwater radiographic camera.)

14. The Company Procedures Manual, Section II, Paragraph 1 will be reworded to indicate the range of the dosimeters. Section III, Paragraphs E.2.1 and E.2.2 will include additional wording to remove any ambiguity in the meaning of annual.

Pocket dosimeters will be capable of reading a dose range from 0 to 200 millirem.

Dosimeters will be calibrated annually at intervals not to exceed 12 months.

15. Two additional paragraphs will be added to Company Procedures Manual, Section IV as follows:

6. In the event that a dosimeter reading is off scale, the procedures are as follows:

- Cease radiographic operations immediately.
- Notify Radiation Safety Officer.
- Film badge or TLD will be immediately sent to vendor for analysis.

7. In the event that a ratemeter alarms, the procedures are as follows:

- Cease radiographic operations immediately.
- A survey of the area will be made to determine the presence of a high radiation field.
- If a high radiation area is confirmed, the diver/radiographer will immediately leave the area and notify the RSO.
- Record dosimeter reading of the diver/radiographers.

16. In Company Procedures Manual, Section II, Paragraph 11 will be added as follows:

11. Defects

All defects in radiographic exposure device and associated equipment, as discovered by the radiographer or assistant, will be immediately reported to the Radiation Safety Officer. The

Radiation Safety Officer will provide this defect information to the manufacturer of the device with carbon copy to the U.S. NRC in accordance with 10 CFR 21.

17. A new paragraph is added to Company Procedures Manual, Section III as follows:

C.2.3 Source Exchange

Radiographic exposure device will be returned to the manufacturer for source exchange.

ATTACHMENT A

Ioan G. Crihan, Ph.D., P.E.

Experience Involving Sealed Sources

1986 - present	Brookhaven National Laboratory, Upton, NY and Columbia University, New York City. Intensive tests with Cobalt-60 for sterilization of organic material
1984 - 1985	Radiography of the Statue of Liberty during the restoration effort.
1983 - 1984	Cobalt-60 radiography of the Statue of Liberty to diagnose damage from bomb explosion.
1973 - 1977	Brookhaven National Laboratory, Upton, NY. Experimental work involving Cobalt-60 sterilization of organic material.
1972 - 1973	Rockefeller University, New York City. Work with Cobalt-60.
1969 - 1971	New York University (at Brookhaven National Laboratory). Experimental work involving Cobalt-60.
1966 - 1968	Research work with Cobalt-60.
1964 - 1966	Institute of Standards and Inventions, Bucharest, Romania. Metrology at the Radiation Laboratory. Bucharest University, Department of Physics. Built a hot lab for experimental use of Cobalt-60.

ATTACHMENT B

Storage Area Diagram

Megarad, Inc.,
277 West Main Street
Niantic, CT 06357-1018

(7-96)
10 CFR 30, 32, 33
34, 35, 36, 39 and 40

Estimated burden per response to comply with this information collection request: 7 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Forward comments regarding burden estimates to the Information and Records Management Branch (T-8 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0120), Office of Management and Budget, Washington, DC 20503. NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

APPLICATION FOR MATERIAL LICENSE

INSTRUCTIONS: SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW. **030-34615**

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS:

IF YOU ARE LOCATED IN:

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19408-1415

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
811 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 78011-8084

LL 30423

03320

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTIONS.

1. THIS IS AN APPLICATION FOR (Check appropriate item)

A.
 B.
 C.

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER _____
- C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip code)

MEGARAD, INC.
196 WOODLAWN ROAD
BERLIN, CT 06037

3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

196 WOODLAWN ROAD
BERLIN, CT 06037 : STORAGE ONLY
AND AT TEMPORARY JOB SITES AT LOCATIONS
UNDER U.S. NRC JURISDICTION

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

IOAN G. CRIHAN

TELEPHONE NUMBER
(908) 372-5743
(212) 472-0840

SUBMIT ITEMS 5 THROUGH 11 ON 8-1/2 X 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

5. RADIOACTIVE MATERIAL
a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.

6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.

7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.

8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)

FEE CATEGORY AMOUNT ENCLOSED \$

13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

IOAN G. CRIHAN, PRESIDENT

SIGNATURE

[Signature]

DATE

12/22/97

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		

APPROVED BY

DATE

125298

HAND DELIVERED

DEC 22 1997

(b)(6)

Scientific and Professional Activity

1992 to Present: President, Megarad, Inc. and Iso-Mark, Inc.

1977 - 1990: President of Art Restoration & Irradiating Preservation, Inc.

Independent Researcher in developing original high technologies and patents, and in pioneering the field of experimental atomic physics in art.

Application of radioisotopes to the preservation and identification of works of art, and to sterilization of organic material.

Initiated the restoration of the Statue of Liberty and conducted, for this purpose, extensive scientific tests on its structure and skin.

1977 to 1986: Initiated the project of restoration of, and conducted scientific tests on, the Statue of Liberty.

1973 to 1977: Independent Researcher; application of radioisotopes to preservation and identification of works of art, and to sterilization of organic material.

1972 to 1973: Electronics Engineer and member of research team, Department of Cell Biology and Electron Microscopy, Rockefeller University under Dr. George Palade, head of Cell Biology Department.

1971 to 1972: Electronics Engineer, Siemens Corp., Iselin, New Jersey, under Mr. H. Ambrushter, head of Scientific Instrument Department.

1969 to 1971: Research Associate, New York University, New York, N. Y. Research and technology supervision on the interaction of atomic radiation with matter. Part of team under Dr. Werner Brandt, head of Radiation and Solid State Laboratory. Study submitted to the U. S. Atomic Energy Commission, Division of Biology and Medicine.

1968 to 1969: Electronics Engineer and Researcher, Siemens

Plant, Nuremberg, West Germany; participant International Colloquy of Nuclear Electronics, Versailles (1968).

1966 to 1968: Electronics Engineer and Researcher, Bucharest, Romania. Chief of Electronic and Radiation Metrology Laboratory under Dr. Horia Hulubei, head of Physics Department.

1964 to 1966: Electronics Researcher, Standards and Inventions Institute, Metrology of Radiations Laboratory, Bucharest, Romania under Dr. V. Voicu, Head of Laboratory.

1958 to 1964: Electronics Engineer, Baneasa International Airoport, Bucharest, Romania with Eng. Dumitriu, head of Radio and Radar Department.

1956 to 1958: Electronics Engineer, Defense Department (Army), Radio and Radar Laboratory, Bucharest, Romania.

Patents

U. S. Patent no. 4,246,295, issued in January, 1981: "The Sterilization and Structural Reinforcement of Art Object Made of Organic Material."

U. S. Patent no. 4,765,655, issued in August, 1988: "Radioisotope Marking of Art Objects in View of Their Rapid Identification."

Pending U. S. Patent registred as application no. 181,111, April 13, 1988: "Detecting Art Forgery by Neutron Activation and Method Thereof."

Pending U. S. Patent no. 07-599,837, "Conductive Heating by Encapsulated Strontium Source (CHESS)" (1990).

Pending U. S. Patent, registered November 7, 1990, "Sterilization of Medical Waste Materials in an Improved Irradiating Facility."

Patents in preparation involving methods to determine the condition of precious stones, coins and stamps by nuclear means.

Professional Licences Held

State Control of Instruments
Utilization and Control of Radioactive Isotopes

Professional Affiliations

Member, The New York Academy of Sciences
Honorary Fellow, Anglo-American Academy
Member, National Professional Engineering Society
Member, New York State Professional Engineering Society
Member, Sigma Xi, Scientific Research Society
Member, American Nuclear Society
Member, Federation of American Scientists
Member, IEEE, Nuclear & Plasma Sciences Division
Member, American Physical Society, High Polymer Division
Member, Society of Plastic Engineers
Member, Association for Preservation Technology, Canada and USA
Member, Preservation League of New York State
Life Patron, American Biographical Institute Research Association

Other Affiliations

Fellow Member, American Biographical Institute
Fellow, International Biographical Association
Member, International Platform Association
Member, U. S. Senatorial Club
Life Member, Republican Presidential Task Force
Member, Republican Presidential Legion of Merit
Member, National Advisory Board of the American Security Council
Member, Legislative Advisory Committee of the New York State Senate
Member, National Rifle Association

Listed In

Industry's Directory of Technical Consultants
Who's Who of American Inventors
Who's Who in Technology Today
Who's Who in The East
International Directory of Distinguished Americans
Community Leaders and Noteworthy Americans
Book of Honor
Notable Americans
Men of Achievement
Men and Women of Distinction
Directory of International Biography
I. B. I. Yearbook and Biographical Directory
American Patriots of the 1980s
Who's Who in the Republican Party

Nomination

Nominated by the Institute of Electrical and Electronic Engineers, the world's largest professional organization, for the Niels Bohr International Gold Medal, 1982.

Awards

Medal of Merit, Republican Presidential Task Force, signed by President Ronald Reagan, 1981.

Medal of Merit, Republican Presidential Task Force, 1990.

Medals, Republican Presidential Legion of Merit, 1992.

"1994 Republican Presidential Award".

Other Honors

Life Member Wall of Honor of Republican Presidential Task Force.

Invited by the Deputy Governor of the American Biographical Institute to be ennobled by a grant of arms, 1993.

Education

D. Engr., Utilization of Radioisotopes, Romanian Academy, Bucharest, (b)(6).

M. S., Technical Military Academy, Radar Department, Bucharest, (b)(6).

Diploma, Military School of Radiotransmission, Sibiu, Romania, (b)(6).

Ferdinand Lycee, Bacau, Romania

Foreign Languages

Fluent in Romanian and Czech; knowledge of French, German and Russian