

03030869

ORC

VOID SHEET

TO: License Fee Management Branch
FROM: Carolyn Boyle
SUBJECT: VOIDED APPLICATION

Control Number: 021788
Applicant: Nicolet Imaging Systems
Date Voided: 06/05/96
Reason for Void: Approved for one-time 5-year
extension of license expiration date.

Susan L. Greene
Signature
IMAB/IMNS/NMSS

06/05/96
Date

Attachment:
Official Record Copy of
Voided Action

FOR LFMB USE ONLY

Final Review of VOID Completed:

- ☒ Refund Authorized and processed
☐ No Refund Due
☐ Fee Exempt or Fee Not Required

Comments: _____

Log completed ☐
Processed by: MLC

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PDR ADOCK 03030869
C PDR

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MLC
custo R



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

June 4, 1996

NICOLET IMAGING SYSTEMS
ATTN: MR. K. L. CROSBIE
Radiation Safety Officer

7695 FORMULA PLACE
SAN DIEGO, CA 92121

SUBJECT: ONE-TIME EXTENSION OF LICENSE EXPIRATION DATE
LICENSE NUMBER 04-18497-04E, DOCKET NUMBER 3030869

Dear MR. K. L. CROSBIE

On January 14, 1996, the Nuclear Regulatory Commission (NRC) amended its regulations in 10 CFR 30, 40, and 70 to extend the expiration date of certain byproduct, source, and special nuclear material licenses by five years (61 FR 1109). The above referenced license was extended by this rulemaking and will now expire on October 31, 2000. Your license will not be amended to show this extended date until the next routine licensing action. Until then, you may provide copies of this letter to vendors and other interested parties as evidence that the license has been extended as a result of the rule.

The extended license authorizes the same activities and contains the same limitations as it previously did. There will be no change in the frequency that the NRC inspects activities authorized by this license.

The amended rules state that in the case of licensees who are granted extensions and who have a currently pending renewal application for that extended license, the application will be considered withdrawn by the licensee and any renewal fees paid by the licensee for that application will be refunded. This will apply to licenses with expiration dates after July 1, 1995, for which renewal applications and the appropriate fees have been submitted and the renewal is still pending. Refunds will be mailed to licensees under separate cover.

All licensees, including those whose renewal applications were withdrawn by this rulemaking, who wish to change their radiation safety programs must request amendment of their licenses to reflect these changes. Amendment requests must include the correct amendment fee since the NRC cannot apply pending renewal refund balances toward amendment fees.

If you have any questions regarding this letter, please contact the individual below.

Headquarters: Susan L. Greene, (301) 415-7843

Thank you for your cooperation in this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Don Cool", is written over a horizontal line.

Donald A. Cool, Director
Division of Industrial and Medical Nuclear Safety
Office of Nuclear Materials Safety and Safeguards



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

NOTE: THE ONE-TIME, 5-YEAR EXTENSION OF YOUR LICENSE EXPIRATION DATE DOES NOT ELIMINATE THE 5-YEAR REPORTING REQUIREMENTS ASSOCIATED WITH YOUR DISTRIBUTION LICENSE. THEREFORE, YOU MUST SUBMIT A PRODUCT TRANSFER REPORT AS OUTLINED IN 10 CFR PART 32 EVEN THOUGH YOUR LICENSE WAS GRANTED A ONE-TIME, 5-YEAR EXTENSION.

October 30, 1995

License No. 04-18497-04E
Docket No. 030-30869
Control No. 021788

Nicolet Imaging Systems
Radiation Processing Group
ATTN: Kay L. Crosbie
Radiation Safety Officer
7695 Formula Place
San Diego, California 92121

SUBJECT: LICENSE RENEWAL APPLICATION

Dear Mr. Crosbie:

This is to acknowledge receipt of your application for renewal of the materials license identified above. Your application is deemed timely filed and, accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding the renewal application should reference the control number specified and your license number.

Sincerely,

Original signed by:

DISTRIBUTION:

License File 04-18497-04E
NMSS r/f
IMNS Central File
CJBoyle
PSantiago
LCamper

Carolyn Boyle, Licensing Assistant
Medical, Academic, and Commercial
Use Safety Branch
Division of Industrial and
Medical Nuclear Safety
Office of Nuclear Material Safety
and Safeguards

Docket No. 030-30869

DOCUMENT NAME: C:\32-DEMT.CB

C = COVER E = COVER & ENCLOSURE N = NO COPY

OFC	IMAB:NMSS						
NAME	CBoyle:cjb						
DATE	10/30/95						

OFFICIAL RECORD COPY



October 6, 1995

Division of Industrial and Medical
Nuclear Safety
Office of Nuclear Materials Safety
and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Reference: Docket No. 030-30869; License No. 04-18497-04E

Subject: License Renewal

The referenced license's most recent issue, Amendment 3, reflected the transfer from IRT Corporation to Nicolet Imaging System, a ThermoSpectra Company. This license is due to expire October 31, 1995. This letter and enclosures constitutes our license renewal package. All previous documents submitted during the initial application and subsequent amendments remain part of the renewal application with the modifications specified in this submittal. Enclosed is a check for \$2~~6~~⁷00 as required for the renewal.

Based upon the license, NIS sells a service to test neutron-treated topaz to assure acceptable and safe levels of radioactivity. As such, NIS' approach is to provide the fastest inspection time possible while completely satisfying NRC requirements for release. This approach allows NIS to competitively price the service for our customers.

The initial application for the distribution license took nearly three years to complete. This required significant labor expenses to perform calculations and measurements, in addition to the compilation of the information for submittal to the NRC. NIS feels that several of its approaches are novel and proprietary.

The documents comprising the application discuss trade secrets. Specifically, such information is of the type always held in confidence by NIS. Public disclosure of this information will cause substantial harm to NIS' competitive position for the commercial testing of topaz.

Each communication to the NRC during the application process specifically noted the confidential nature of the information provided to support the application in the cover letters. To the best of our knowledge, the information and mathematical calculations forming the basis of our testing process presented in

these documents is not currently available in public sources, with the exception of limited manufacturer provided information that may place NIS in a competitive disadvantage if the manufacturer's name was disclosed. Since this information was transmitted to the NRC, events have not altered the proprietary character of the information. Specific information which NIS considers confidential were communicated to Mr. Russell Howell of the NRC in letters dated October 29, 1993 and January 18, 1994. Similarly, item 4 in the attached application for license renewal is NIS Confidential information.

Also, inclosed is the most recently amended copy of NIS' State of California Radioactive Materials License No. 2468-80 which allows possession and use of the irradiated topaz.

This application and enclosures are provided in duplicate with the exception of the renewal fee.

Thank you for your consideration.

A handwritten signature in cursive script, reading "K. L. Crosbie".

K. L. Crosbie, P.E.
Radiation Safety Officer

APPLICATION FOR MATERIAL LICENSE

ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 9 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 ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (T-6 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.

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.

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 19406-1415

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
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-8064

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. NEW LICENSE

B. AMENDMENT TO LICENSE NUMBER

C. RENEWAL OF LICENSE NUMBER 04-18497-04E

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

Nicolet Imaging Systems
Radiation Processing Group
7695 Formula Place
San Diego, CA 92121

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

7695 Formula Place
San Diego, CA 92121

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Dr. Lewis Parks

TELEPHONE NUMBER

(619) 271-6330

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 form 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 \$ 2400.00

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

Kay L. Crosbie, P.E., Radiation
Saf. Off.

SIGNATURE



DATE

10 OCT 95

FOR NRC USE ONLY

TYPE OF FEE

FEE LOG

FEE CATEGORY

AMOUNT RECEIVED

CHECK NUMBER

COMMENTS

APPROVED BY

DATE

021788

RENEWAL APPLICATION

for

Nicolet Imaging Systems
License No. 04-18497-04E, Docket No. 030-30869

Documents submitted with the original license application are up-to-date and accurately represent our management control program, facilities, equipment, personnel, radiation safety procedures, waste disposal procedures, locations of use, and other information pertinent to the program, with the following exceptions:

- 1) In September, 1994, IRT Corporation was purchased by Thermo Instrument Systems and merged into Nicolet Imaging Systems (NIS). All pertinent reference to IRT Corporation or IRT should be replaced with Nicolet Imaging Systems.

Reference: All documents

- 2) Personnel with Detailed Knowledge / QA Program Responsibility

Reference: Letter date July 21, 1992

The present list of responsible personnel is:

Victor J. Balmer - QA responsibility
Lewis A. Parks - Alternate QA responsibility
Kay L. Crosbie

Measurement data will be reviewed and the Certification of Compliance will be signed by Mr. Balmer, provided the documentation is complete and correct. In the event that Mr. Balmer is not available for review and sign-off, the alternate or other NIS approved, cognizant personnel can assume this responsibility.

An organization chart for the Radiation Processing Group is attached. Updated curricula vitae for responsible personnel are presented below:

Victor J. Balmer, Manager of Radiation Services and Engineering

B.S., Electromechanical Engineering, Royal Air Force College, England

Since joining IRT in April, 1991, Mr. Balmer is responsible for the day-to-day operation for the evaluation of residual gamma and beta radiation in irradiated topaz, including quality assurance and quality control. He also is responsible for dosimetry for sterilization of medical products using IRT's two linear

accelerators.

In April, 1995, Mr. Balmer was promoted to the position of Manager of Radiation Services and Engineering with the Radiation Processing Group at NIS. In addition, he manages Engineering within the group and has primary responsibility for major upgrades and maintenance of the radiation processing equipment.

During his active Air Force duty from 1955 to 1959, Mr. Balmer was responsible for the commissioning and installation of early warning and ground approach landing radar systems.

From 1959 to 1965 while working for Unicam, Mr. Balmer developed and designed ultra-violet and visible to near infra-red spectrophotometers.

Mr. Balmer designed UHF quartz crystal standards, x-ray crystal orientation devices, and vacuum thin film deposition equipment from 1965 to 1970 while working for Cathodeon Crystals. During this time, he also researched the frequency/temperature versus crystalline orientation characteristics of quartz.

While working for Cambridge Instruments from 1970 to 1973, Mr. Balmer designed wavelength x-ray spectrometers for use on electron probes and scanning electron microscopes. He researched the refraction versus lattice spacing of crystalline materials for x-ray spectroscopy.

From 1973 to 1991, Mr. Balmer worked for Edax and Kevex to develop inter-element corrections for determining the elemental concentrations of electron excited x-ray spectra. He developed and designed light element (less than sodium, $Z < 11$) SiLi x-ray detectors for electron probes. He was involved with applications and marketing of computer based x-ray analytical systems.

Lewis A. Parks, Ph. D., Manager, Radiation Processing Group

A. A., Dodge City Community Junior College
B. A., Mathematics, Emporia State University
M. S., Physics, Emporia State University
Ph. D., Physics, University of Texas at Austin

Dr. Parks joined the Radiation Processing Group in 1988 as the Marketing Manager. In this position, he was responsible for marketing and sales of electron irradiation services to the medical device, semiconductor, gemstone, and plastics industries. Additionally, he oversaw the gemstone activation analysis

and activation analysis services. Since October, 1993, Dr. Parks has been the Manager of the Radiation Processing Group.

Dr. Parks joined IRT in 1978 as a Staff Physicist. In this position, he worked on many projects using various radiation gaging techniques. He was a principle physicist on the AIDECS projects which employed Compton scattered gamma-rays produced by ^{60}Co and linear accelerators to inspect the interior of artillery projectiles. He was also involved in several other projects using gamma-ray transmission techniques to inspect and gage various materials.

In 1983, Dr. Parks became a Project Manager. He was responsible for all technical, performance, and budget aspects of several projects, including three reactor fuel rod scanners delivered to Japanese and American customers, a magnetic induction fuel rod scanner, and the prototype build of IRT's CXI printed circuit board inspection systems.

In 1987, Dr. Parks became Manager of Projects and Product Development for IRT's Automated Systems Group. He oversaw a staff of Project Managers and scientists responsible for the successful completion of custom inspection equipment and product prototypes, such as IRT's IXRS line of x-ray sources. During this time, an Automated Wheel Inspection System and Automated Casting Inspection System using x-rays and ADR² image processors were built and delivered.

Dr. Parks received the Ph.D. degree in experimental nuclear physics from the University of Texas in 1976. His thesis work was performed at Argonne National Laboratory from 1974 to 1976 at the Tandem Van de Graaff accelerator facility. His thesis work involved the discovery of the new isotope ^{53}Ti . This required using various gamma- and beta-ray spectroscopic and analysis techniques. From 1976 to 1978 Dr. Parks was a Research Associate at the Accelerator Laboratory at Florida State University.

Kay L. Crosbie, P.E., NIS Radiation Safety Officer

B.Ch.E., Chemical Engineering, Pratt Institute
M.N.E., Nuclear Engineering, University of Virginia

Mr. Crosbie joined IRT in 1963. He is presently the Radiation Safety Officer for NIS, a position he has held since 1989 and previously held from 1973 to 1987. He is responsible for all aspects of NIS' radiation safety

programs, radioactive materials licensing, and X-ray machine registrations. Mr. Crosbie was Manager, Projects and Programs Group and served as a Project Manager/Principal Investigator for programs involving the design, construction, operational testing and installation of ordnance radiation gauging devices, neutron radiography and radiation detection systems. Other responsibilities involved the design, construction, operational testing and installation of ^{252}Cf -based subcritical multiplier systems and physics and engineering investigation on programs related to in-depth heating studies in concrete using microwave and fission heat sources, nuclear instrumentation and radiation shielding.

Prior to this he was engaged in fast-neutron physics and fast-neutron detection systems employing time-of-flight techniques. He was responsible for the design, construction, licensing and operation of Accelerator Pulsed Fast Reactors (APFA-I, II, and III). As supervisor of these facilities, he has provided static and pulsed service irradiations for studies that ranged from effects of simulated nuclear detonations to foil activation for fast neutron dosimetry.

Mr. Crosbie attended the University of Virginia under an AEC fellowship program and conducted research and development work on a nuclear-powered plasma thermocouple. From 1961 to 1963, he was with the Sandia Corporation as a reactor supervisor at the pulsed-reactor facility. His main responsibilities included the supervision of pulsed-reactor operations, with primary concern for the safety of the reactor and personnel conducting experiments. He was also engaged in research on the penetration and activation of shielding materials by neutrons emanating from the reactor pulse.

3) Facilities Providing Treatments and Irradiation

Reference: Letter dated October 30, 1989

In addition to the facilities listed on page 4 of the referenced document, we are aware of the following reactor facilities in the United States doing neutron irradiation of gems:

Texas A&M University, College Station, TX
University of Virginia, Charlottesville, VA

In addition to the facilities listed on page 4 of the referenced document, we are aware of the following accelerator facility in the United States doing electron and high-energy

gamma (bremsstrahlung) irradiation of gems:

E-Beam Services, Cranbury, NJ

NIS occasionally receives neutron-irradiated topaz from the reactor facility at the University of Virginia via license to license transfer.

- 4) Processing Sequence, step involving the use of the NaI detector

Reference: Letter dated October 30, 1989
Letter dated June 1, 1990

(NIS CONFIDENTIAL INFORMATION) The previous processing sequence included the use of a high efficiency NaI detector to count the subplot of gemstones as the first step in the sequence (see, for example, Figure 1 and discussion on page 30 in the October 30, 1989, letter). If the integrated counts from this detector were less than a specific limit, it was deemed that high resolution spectroscopy counting by a germanium detector could be by-passed (the subplot would be gamma-releasable). NIS requests that counting of the subplot using the NaI detector be optional. For such a case, if the NaI detector is not used to count the stones, the subplot will always be counted using the high resolution germanium detector following the present procedures.

- 5) Frequency of calibration of NaI system

Reference: Letter dated October 30, 1989, page 45
Letter dated June 29, 1990, page 2

There are various operational parameters that must be checked or calibrated for the NaI system (summarized in the June 29, 1990, letter, page 2). Because the NaI system may be infrequently used, it will be checked or calibrated prior to use by following the procedures referenced above, unless the system has been checked or calibrated within the time periods specified prior to use.

- 6) High resolution germanium detector system

Reference: Letter dated October 30, 1989, page 43

The germanium detector has been replaced with a 39 percent relative efficiency EG&G Ortec germanium detector. NIS now use EG&G Omnigam Gamma-Ray Spectrum Analysis Software.

7) Processing records

Reference: Letter dated June 29, 1990

Hard copies of the following processing records are not retained. However, they may be generated from stored data if required.

- Parameter Report Printout Sheet
- Peak/Energy Matrix Printout Sheet
- Library Peak Usage Printout Sheet

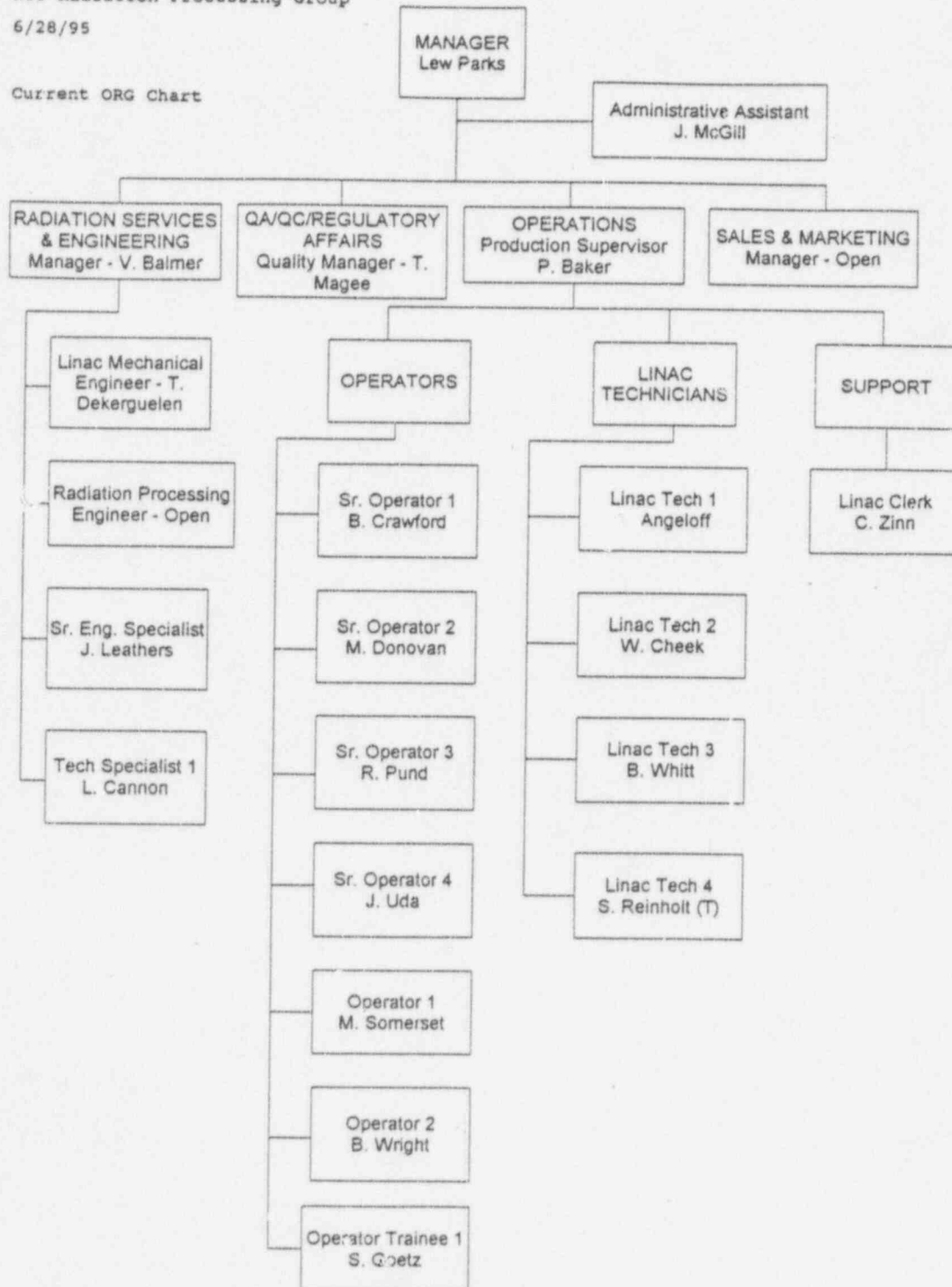
The Sum of Ratios and Beta Detector Reports are not used nor are they essential for the final release of the gemstones.

ORGANIZATION CHART

NIS Radiation Processing Group

6/28/95

Current ORG Chart



RADIOACTIVE MATERIAL LICENSE

Pursuant to the California Administrative Code, Title 17, Chapter 5, Subchapter 4, Group 2, Licensing of Radioactive Material, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, use, possess, transfer, or dispose of 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 Department of Health Services now or hereafter in effect and to any conditions specified in this license.

1. Licensee	Nicolet Imaging Systems	3. License No.	2468-80	Amendment No.	54
2. Address	P.O. Box 85317 San Diego, CA 92138	4. Expiration date	December 20, 1998		
Attention:	K.L. Crosbie Radiation Safety Officer	5. Inspection agency	Radiologic Health Branch Los Angeles		

License Number 2468-80 is hereby amended as follows:

- | 6. Nuclide | 7. Form | 8. Possession Limit |
|---|---------------------------|--|
| A. Hydrogen-3 | A. Any | A. Total not to exceed 100 millicuries. |
| B. Any radionuclide listed in Section 30356 Appendix B with Atomic Numbers 3-83 inclusive. | B. Non-dispersible solids | B. Not to exceed 10^{-2} x Appendix B each. Total not to exceed 100 millicuries. |
| C. Any radionuclide with Atomic Number 3-83 inclusive. | C. Sealed sources | C. Total not to exceed 2 curies. |
| D. Any radionuclide listed in Section 30356, Appendix B with Atomic Numbers 84-105 inclusive, except:
(1) Source material, and
(2) Special Nuclear Material | D. Non-dispersible solids | D. Not to exceed 10^{-2} x Appendix B each. Total not to exceed 100 microcuries. |
| E. Any radionuclide with Atomic Numbers 84-105 inclusive, except:
(1) Source Material, and
(2) Special Nuclear Material | E. Sealed sources | E. Total not to exceed 2 curies. |

For the State Department of Health Services

Date October 27, 1994 by _____ 3

Radiologic Health Section
744 P Street, Sacramento, CA 95814

Page 2 of 5 Pages

RADIOACTIVE MATERIAL LICENSE

License Number: 2468-80

Supplementary Sheet

Amendment Number: 546. Nuclide

F. Source Material

G. Any radionuclide except:
(1) Source Material &
(2) Special Nuclear Material.H. Any radionuclide except:
(1) Source Material &
(2) Special Nuclear Material

I. Any radionuclide except alpha emitters.

J. Any radionuclide

K. Hydrogen 3

L. Any radionuclide except alpha emitters.

7. Form

F. Nondispersible solid

G. Solid components of neutron activated materials.

H. Mixed fission products and induced radioactive materials as contained in equipment and facilities activated by electrons, photons, or neutrons.

I. Solid components of activated materials.

J. Contamination on materials used for tests of leakage and/or contamination.

K. Sealed accelerator tubes (Kaman Nuclear Model A-711)

L. Solid components of activated materials.

8. Possession Limit

F. Total not to exceed 15 pounds.

G. Total not to exceed 100 millicuries.

H. Total not to exceed 100 millicuries.

I. Total not to exceed 100 microcuries.

J. Total not to exceed 1 microcurie.

K. Not to exceed 5 curies each; total 25 curies.

L. Total not to exceed 2 curies.

9. Authorized Use

A., B., D., & F. To be used for research and development as defined in California Radiation Control Regulations, Section 30100 and for instrument calibration and instructional use in radiation safety programs.

C. & E. To be used for research and development as defined in California Radiation Control Regulations, Section 30100, and for instrument calibrations instructional use, and as components of IRT isotopic analysis, gauging and inspection systems, and for storage.

For the State Department of Health Services

Date: October 27, 1994

By: _____

3

Radiologic Health Branch
P.O. Box 942732
Sacramento, CA 94234-7320

Page 3 of 5 Pages

RADIOACTIVE MATERIAL LICENSE

License Number: 2468-80

Supplementary Sheet

Amendment Number: 549. Authorized Use: (continued)

- G. To be used incidental to handling and testing of irradiated materials and for storage.
- H. To be used incidental to operations and use of accelerators, neutron generators, nuclear reactors, subcritical assemblies, neutron sources and for storage.
- I. To be used incidental to machining of LINAC equipment.
- J. To be used incidental to performing and analyzing sealed source leak tests as a customer service.
- K. To be used for storage.
- L. To be used incidental to the handling and processing of irradiated gem stones.

10. Radioactive material shall be used only at the following locations:

- (a) 7695 Formula Place, San Diego, CA
- (b) 8221 Arjons Road, San Diego, CA
- (c) Temporary job sites of the licensee in areas not under exclusive federal jurisdiction throughout the State of California.

- 11. This license is subject to an annual fee for sources of radioactive material authorized to be possessed at any one time as specified in Item 8 of this license. The annual fee for this license is required by and computed in accordance with Sections 30230-30232 of the California Radiation Control Regulations and is also subject to an annual cost-of-living adjustment pursuant to Section 113 of the California Health and Safety Code.
- 12. Radioactive material may be used only by, or under the supervision of, individuals designated by the Radiation Safety Officer.
- 13. Except as specifically provided otherwise by this license, the licensee shall possess and use radioactive material described in Items 6, 7, 8, and 9 of this license in accordance with statements, representations, and procedures contained in the documents listed below. The Department's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

For the State Department of Health Services

Date: October 27, 1994

By: _____

3

Radiologic Health Branch
P.O. Box 942732
Sacramento, CA 94234-7320

Page 4 of 5 Pages

RADIOACTIVE MATERIAL LICENSE

License Number: 2468-80

Supplementary Sheet

Amendment Number: 54

13. Continued

- (a) The application dated December 3, 1990, signed by K.L. Crosbie as modified by letters with attachments dated July 12, 1991 and October 28, 1991, both signed by K.L. Crosbie.
- (b) The letter dated December 14, 1992, signed by K.L. Crosbie, relative to elimination of Radiation Safety Committee.
- (c) The letter with attachments dated March 3, 1993, signed by K.L. Crosbie, relative to training of personnel.
- (d) The letter with attachments dated November 3, 1993, November 29, 1993, December 23, 1993 and January 27, 1994, all signed by K.L. Crosbie relative to clearance survey of facility at 3030 Callan Road, San Diego, CA.
- (e) The letter dated September 20, 1994 signed by R. Lindell relative to change in ownership.

- 14. The Radiation Safety Officer in this program shall be K.L. Crosbie.
- 15. All uses of radioactive material under this license shall be conducted in accordance with the user's application to and modifying requirements of the licensee's Radiation Safety Officer. The review of intramural applications shall include findings with respect to matters specified in Title 17, California Code of Regulations, Section 30194. Documentation of these findings shall be maintained for review by the Department or its authorized representatives.
- 16. Sealed sources described in Subitems C., E., and L. of this license shall be tested for leakage and/or contamination at intervals not to exceed six months, following the test method described in the application dated December 3, 1990.
- 17. The licensee is authorized to perform tests for leakage and/or contamination of sealed sources. The following tests may be performed for sources possessed under this license and as a customer service:
 - (a) Collection of wipe test samples from sealed sources and devices containing sealed sources.
 - (b) Furnishing leak test kits for sealed sources and devices containing sealed sources to customers authorized to use such leak test kits.
 - (c) Analysis of materials collected by the licensee as stated in (a) above and material returned by customers from leak test kits listed in (b) above for amount of radioactivity. Reports to customers of analysis shall be in microcuries.

For the State Department of Health Services

Date: October 27, 1994

By: _____

Radiologic Health Branch
P.O. Box 942732
Sacramento, CA 94234-7320

3

Page 5 of 5 Pages

RADIOACTIVE MATERIAL LICENSE

License Number: 2468-80

Supplementary Sheet

Amendment Number: 54

18. Records of leak test results shall be kept in units of microcuries and maintained for inspection. Records may be disposed of following Department inspection. Any leak test revealing the presence of 0.005 microcuries or more of removable radioactive material shall be reported to the Department of Health Services, Radiologic Health Branch, 744 P Street, P. O. Box 942732, Sacramento, CA 94234-7320, within five days of the test. This report shall include a description of the defective source or device, the results of the test, and the corrective action taken.

For the State Department of Health Services

Date: October 27, 1994By: 

Radiologic Health Branch
P.O. Box 942732
Sacramento, CA 94234-7320

3

R1201021

LICENSING TRACKING SYSTEM

DATE: 951016
PAGE: 1

LTS WORKSHEET

DOCKET NO : 03030869 LICENSE NO : 04-18497-04E STATUS: ☒
MAIL CONTROL: 021788 RECEIPT DATE : 951016 ACTION TYPE: 3
DUE DATE : 960413
FED. GOVT : N INST. CODE : 18497 LICENSE REGION: 0
ISSUE DATE: 941222 ORIGINAL DATE: 901029 EXPIRATION DATE: 19951031
NAME : NICOLET IMAGING SYSTEMS DECOM FIN ASSUR REQD: N
SUBM: _
DEPT/BUREAU: _____ CONT PLAN REQD: N APPRV: _
BUILDING : _____
STREET : 7695 FORMULA PLACE
CITY : SAN DIEGO STATE: CA ZIP: 92121
CONTACT PERSON: K. L. CROSBIE PHONE: 619-622-8814
PRIMARY PGM CODE : 03250 SECONDARY PGM CODES: _____
INSPECTION REGION: 4 PRIORITY CODE: 5 INSPECTION CATEGORY: E2
RADIATION SAFETY OFFICER: K. L. CROSBIE
STATES WHERE USE IS AUTHORIZED: 1 0 - ALL LISTED STATES
1 - SAME AS STATE IN ADDRESS
2 - ALL STATES
3 - NON-AGREEMENT STATES
AUTHORIZED STATES: _____ (USE ONLY IF ABOVE IS ZERO)
REPORTING IDENTIFICATION SYMBOL: _____
APPROVAL FOR: REDISTRIBUTION: N STORAGE ONLY: N
TEMPORARY JOB SITES: N INCINERATION: N
BURIAL: N
EXEMPTIONS: (1) _____ (2) _____

POSSESSION LIMIT INFORMATION

PAGE: 2

MATERIAL TYPE	:	NPA	FORM CODE:	NPA	AGGREGATE CODE:	NPA
MODEL NUMBER	:					
DESCRIPTION	:					
TOTAL QUANTITY	:	0000000.000000000	UNIT:			
OTHER	:		# SOURCES:			
MATERIAL TYPE	:		FORM CODE:		AGGREGATE CODE:	
MODEL NUMBER	:					
DESCRIPTION	:					
TOTAL QUANTITY	:		UNIT:			
OTHER	:		# SOURCES:			
MATERIAL TYPE	:		FORM CODE:		AGGREGATE CODE:	
MODEL NUMBER	:					
DESCRIPTION	:					
TOTAL QUANTITY	:		UNIT:			
OTHER	:		# SOURCES:			
MATERIAL TYPE	:		FORM CODE:		AGGREGATE CODE:	
MODEL NUMBER	:					
DESCRIPTION	:					
TOTAL QUANTITY	:		UNIT:			
OTHER	:		# SOURCES:			
MATERIAL TYPE	:		FORM CODE:		AGGREGATE CODE:	
MODEL NUMBER	:					
DESCRIPTION	:					
TOTAL QUANTITY	:		UNIT:			
OTHER	:		# SOURCES:			
MATERIAL TYPE	:		FORM CODE:		AGGREGATE CODE:	
MODEL NUMBER	:					
DESCRIPTION	:					
TOTAL QUANTITY	:		UNIT:			
OTHER	:		# SOURCES:			

NAME

AUTHORIZATION

ADDRESS WHERE MATERIAL IS USED OR POSSESSED

BUILDING: 1
ROOM:
STREET: 7695 FORMULA PLACE
CITY: SAN DIEGO
STATE: CA 92121

2
8221 ARJONS ROAD
SAN DIEGO
CA

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BUILDING:
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STREET:
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STATE:

BUILDING:
ROOM:
STREET:
CITY:
STATE:

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

(FOR LFMS USE)
INFORMATION FROM LTS

Program Code: 03250
Status Code: 0
Fee Category: 3I
Exp. Date: 19951031
Fee Comments:
Decom Fin Assur Req'd: N

LICENSE FEE TRANSMITTAL

A. REGION WV

1. APPLICATION ATTACHED

Applicant/Licensee: NICOLET IMAGING SYSTEMS
Received Date: 951016
Docket No: 3030869
Control No.: 021788
License No.: 04-18497-04E
Action Type: Renewal

2. FEE ATTACHED

Amount: \$2600.00
Check No.: 006657

3. COMMENTS

Signed
Date

M Moriarty
10-16-95

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered ☒)

1. Fee Category and Amount: 3I \$2,600

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

Amendment
Renewal ☒
License

3. OTHER

Signed
Date

[Signature]
10/18/95

Log	<u>Det. 1 HDS</u>
Remitter	
Check No.	<u>6657</u>
Amount	<u>\$2,600</u>
Fee Category	<u>3I</u>
Type of Fee	<u>Renewal</u>
Date Check Rec'd	<u>10/18/95</u>
Date Completed	<u>[Signature]</u>
By	

Refunded \$2,600

OCT 24 1996

DIVISION OF ACCOUNTING AND FINANCE REQUEST FOR REFUND TO EMPLOYEE/VENDOR

THE EMPLOYEE/VENDOR IDENTIFIED BELOW HAS OVERPAID THE NUCLEAR REGULATORY COMMISSION FOR GOODS AND/OR SERVICES PROVIDED AND IS DUE A REFUND

EMPLOYEE/VENDOR/PAYEE CODE: _____

NAME: Nicolet Imaging Systems

ADDRESS: ATTN: Mr. K. L. Crosbie /RSD

ADDRESS: 7695 Formula Place

CITY: San Diego STATE: CA ZIP: 92121

TRANS CODE: PX

TRANS TYPE: FE FUND: X5280 JOB CODE: _____ AMOUNT: \$ 2,600.00

TRANS TYPE: IR FUND: R1435 JOB CODE: INTR AMOUNT: _____

TRANS TYPE: IR FUND: R1099 JOB CODE: ADCH AMOUNT: _____

TRANS TYPE: IR FUND: R1099 JOB CODE: FINE AMOUNT: _____

TOTAL REFUND AMOUNT: \$ 2,600.00

COMMENTS: LIC 04-18497-04E/CIC 6657/RENEXTNRLMRG

(limit comments to 40 characters, including spaces)

PREPARED BY: Sandra Kimberly DATE: 10/24/96

AUTHORIZED BY: David Paul DATE: 10/24/96

ORIGINAL INV. NO: _____ DATE PAID: _____ AMOUNT: _____

REFUND ENTERED INTO COLLECT BY: _____

REFUND DETERMINED BY: _____ DATE: _____

PLEASE ATTACH APPROPRIATE SUPPORTING DOCUMENTATION

Net 11495
021788