



HOSPITAL CONSULTANTS * NUCLEAR MEDICINE SPECIALISTS

STAN A. HUBER CONSULTANTS, INC. □ 235 ESSEX LANE □ NEW LENOX, ILLINOIS 60451 □ (815) 722-8009

February 21, 1985

U.S. Nuclear Regulatory Commission
Attn: Bruce Mallett, Ph.D., Chief
Radioisotopes Licensing Section
Region III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

RECEIVED
85 MAR 14 A10:18
U.S. N.R.C.
LIC. FEE MGMT. BRANCH

Re: Amendment to License 12-17503-01

Dear Dr. Mallett:

I request amendment to our above referenced license for the following items:

1. Change in address from 235 Essex Lane to:

200 North Cedar Road
New Lenox, Illinois 60451

The new phone number after early March, 1985 will be:

815-485-6161

Applicant	MAR 13
Check No.	5883
Amount	5978.60
Type of Fee	3N \$120
Date	12/31
Received By	Cop

This relocation represents a gradual move from the office addition on our current home (at 235 Essex Lane) to a free standing commercial building (former New Lenox Post Office Building) which I now own. The one-story building is about 3000^{sq} square feet in size and a facility sketch is attached. Although our consultants generally are transporting their NBS traceable standards for client calibration services, there will be a utility storage room with a locked and properly posted cabinet for storage of standards, as shown on the sketch. The door to the utility room will also be kept locked to prevent unauthorized access. We confirm that a radiation survey will be performed and adequate shielding will be used to assure that survey meter readings in adjoining rooms are at normal background of <0.05 mr/hr.

When we transfer the standards from Essex Lane to our new building, we will perform an inventory check to account for all sources after the move. We will also do a double check by performing a radiation survey of the former storage area, with a properly calibrated low level G.M. survey meter (Victoreen, model Thyac III with thin-end window, or equivalent). Since we only use sealed source standards, we can assure that all radiation readings will be at normal background of <0.05 mr/hr. We will maintain these survey results on file.

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MAR 04 1985
REGION III

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REG3 LIC30
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CONTROL NO. 78441

2. On Condition No. 12 of Amendment 8, our latest license renewal, please remove the name of Stanley W. Buhr, NMT, from our license and substitute the name of Rodney Ice, Ph.D., an ABHP Board Certified Health Physicist whose resume summary is attached. Dr. Ice is joining our firm in early March, 1985.

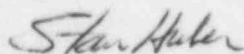
Please also add the name of Charles B. Root, Ph.D., who would primarily be involved with our firm in conducting Lixiscope and bone densitometer training courses. Dr. Root is a consultant to Nuclear Data, Inc. in Schaumburg, Illinois, has attended a training course I conducted for a group of medical users (see attached training certificate); and will use our training course materials in accordance with NRC Policy and Guidance Directive FC83-24 "Licensing the Human Use of the Lixiscope and Bone Mineral Analyzer," dated November 10, 1983. Dr. Root has been devoting about half his time over the past year to consulting with Nuclear Data regarding its model ND1100 bone densitometer. You may recall that Dr. Root and I met with you several months ago to discuss licensing protocols and formats for this device. A resume for Dr. Root is also attached herewith.

For your additional information, I have enclosed a copy of a letter dated February 7, 1985 from William O. Miller, Chief of the NRC License Fee Management branch, which indicates that consideration will be made to classify our license in fee Category 3P only, rather than both 3N and 3P, which is another interpretation of fee categories from the June 20, 1984 revised NRC fee schedules. Based on this pending NRC decision and the fact that we interpret this amendment classification as "3P", we are enclosing a check for \$60 as the processing fee.

Please call me at 815-722-8009 or 815-485-6161 if there are any questions or information I can add to assist in expediting this amendment.

Thank you.

Sincerely,

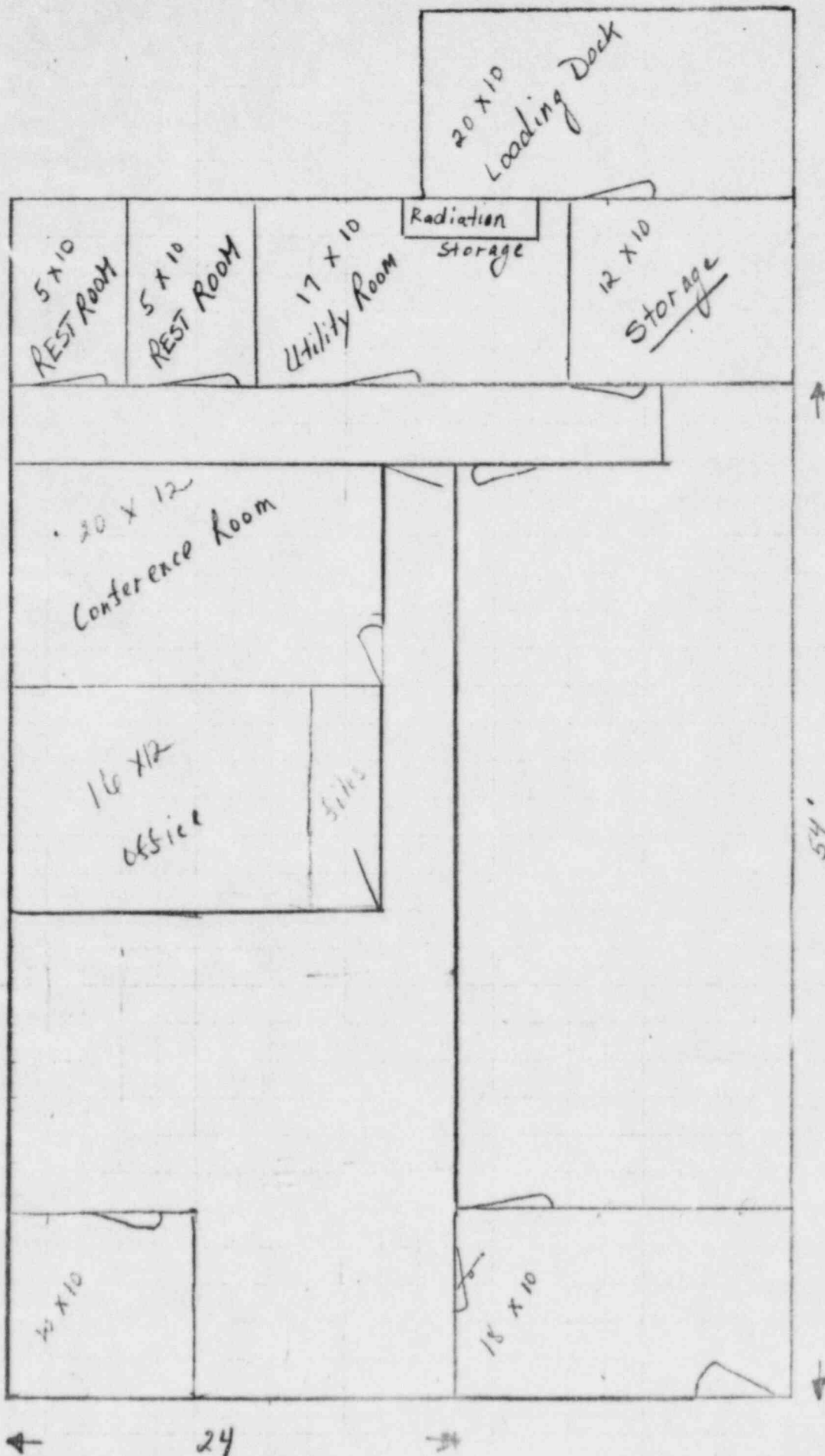


Stan A. Huber
President

SAH:amw

Enclosures

200 North Cedar Road
New Lenox, IL 60451



CONTROL NO. 78441

RODNEY D. ICE, Ph. D.
P. O. Box 3042
Edmond, OK 73083
(405) 341-0564

EXPERIENCE

1983-Present: Vice President, Corporate Development, Benedict Nuclear Pharmaceuticals, Inc., Golden, CO: Responsible for Professional Affairs and R & D Departments; Developed INDAs and NDAs, Corporate Business Plans and coordinated contract research.

1976-1983: Dean and Professor, University of Oklahoma, Health Sciences Center, Oklahoma City, OK; Financial and Operational Administrator for 55 staff (17 Ph.D. level scientists) and 450 students; Responsible for capitol improvements, fund raising, public and professional relations; Teacher and Scientist.

1971-1976: Associate and Full Professor, Director of Nuclear Pharmacy and Assistant Director of the Hospital Pharmacy, University of Michigan, Ann Arbor, MI; Taught Nuclear Medicine, Nuclear Pharmacy and Nuclear Technology students; Responsible for team research, INDAs preparation and FDA regulations.

1967-1971: Assistant and Associate Professor, Temple University, Philadelphia, PA: University Radiation Safety Officer; Taught courses in radiochemistry, radiological health, health physics and nuclear pharmacy; Responsible for all NRC regulations and independent research.

1959-1965: Private Practice, Rod's Tanglewilde Drugs, Olympia, WA.

EDUCATION

1955-1959: B.S. Pharmacy, Univ. of Washington, Seattle, WA

1964-1965: M.S. Pharm. Sci., Purdue University, Lafayette, IN

1965-1967: Ph.D. Pharm. Sci., Purdue University, Lafayette, IN

AFFILIATIONS

Registered Pharmacist: OK, CA, WA, MI

Board Certified Health Physicist

Nuclear Medical Science Officer, USAR

Member, 1985 USP Committee of Revision

Gideons, International

Board of Trustees, Phila. College of Bible 1970-1980

PUBLICATIONS

1. Over 80 Scientific and Professional Articles
2. Over 110 Scientific and Professional Abstracts
3. Co-authored 9 books

References, Biography and Publication lists are available upon request.



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CERTIFICATE OF TRAINING

This is to certify that Charles B. Root, Ph.D. has successfully completed training in accordance with the Nuclear Regulatory Commission's (NRC) Policy and Guidance Directive FC83-24, "Licensing the Human Use of the Lixiscope and Bone Mineral Analyzer", dated November 10, 1983.

The training included all topics listed in the enclosure with that Directive, entitled "Recommended Medical Users Training for Lixiscope and Bone Mineral Analyzer Diagnostic Devices", specified as Group A - Basic Radiation Physics and Instrumentation (three (3) hours); Group B - Radiation Biology (three (3) hours); and Group C - Radiation Protection (two (2) hours).

This training was completed on October 5, 1984.

In addition, the above certified individual participated in a demonstration of the proper loading and unloading of the shielded source holder (source exchange procedure) of the bone mineral analyzer device which will be used by the licensee. This demonstration was conducted by George Mazurek and Mark McKenna, under the supervision of Mitch Greenwald, Radiation Safety Officer at Nuclear Data, Incorporated facilities in Schaumburg, Illinois. This training was completed on October 5, 1984.

A copy of this certificate is to be provided to the NRC or Agreement State as proof the trainee has the necessary training and experience to make a specific application for a Byproduct (Radioactive) Material License to possess and use a bone mineral analyzer.

This document was prepared in conformity with Title 10, Code of Federal Regulations, and the NRC Policy and Guidance Directive FC83-24. All information contained herein is true and correct to the best of our knowledge and belief.

Certified by: Stan A. Huber Consultants, Inc. Instructor: Stan A. Huber

Under License : NRC License #12-17503-01 Signature: Stan A. Huber

Date: October 5, 1984

CONTROL NO. 7844

CHARLES B. ROOT, PH.D.
613 Dock Drive
Barrington, Illinois 60010
312-381-3265

EDUCATION

B.S. Degree, with honor, 1963, Eastern Illinois University, Chemistry and Physics, held both state and honorary scholarships. Completed four year program in three years.

Ph.D. Degree, 1969, The Catholic University of America, Physical/Inorganic Chemistry, nuclear physics minor. Heavy concentration on classical thermodynamics, kinetics and quantum and statistical mechanics. Held NASA Research Fellowship during 1964 - 1965, thesis research 100% funded by U.S. Navy Office of Strategic Studies. Participated in White House Summer Student Program in 1962.

JANUARY 1978 to JUNE 1981

Manager, Accurel Systems Division, ARMAK COMPANY, Chicago, Illinois.

1. Proposed, planned, and staffed commercial development group responsible for manufacture, sale, and license of new porous polymer technology. Supervised four Senior Project Managers, manufacturing development, pilot plant, sales force, and R&D liaison.
2. Coordinated North American and International marketing and development activities with European parent company.

JUNE 1974 to DECEMBER 1977

President and Founder of EDUCATIONAL DESIGN ASSOCIATES, Waldorf, Maryland.

1. As Chief Operating Officer, planned, supervised, and financed all aspects of design, manufacture and sale of educational products and teaching aids.
2. Designed over 80 unique products sold to school supply dealers and major retailers such as Sears and Nieman Marcus.
3. Designed and constructed a 12,000 square foot factory employing 30 people. Developed cost control methods, controls, and accountability systems for over 600 items and components produced.

JULY 1969 to JUNE 1974

Held various positions with ALLIED CHEMICAL CORPORATION, Morristown, New Jersey, Corporate Research and Development Laboratories, New Venture Activities & Plastics Division.

1973 - 1974 Senior Market Research Analyst, Plastics Divn.

Conducted broad market surveys and analysis in field of high performance plastic materials. Participated in clinical evaluations (in animals) of artificial blood extenders based on fluorocarbon fluids.

1971 - 1973 Market Development Specialist, New Ventures Department

Conducted market research and development studies on medical device and instruments. Worked with large public and private hospitals in New York City to define next generation equipment needed in operating and recovery rooms. Presented business plans to senior management.

1969 - 1971

Supervised research group in development and characterization of new catalysts for organic oxidations, stack gas desulfurization and coal gasification.

JULY 1963 to JUNE 1969

Research Chemist with U.S. NAVAL ORDINANCE LABORATORY, Silver Spring, Maryland.

Conducted research on high energy batteries, explosive devices and weapons simulation via computer modeling. Justified all funding for research projects and equipment to senior laboratory management and Department of Defense agencies. Developed technical skills in the following areas:

1. uv-visible, high temperature spectroscopy (two publications)
2. thermal analysis (three publications)
3. computer programming (one publication)
4. high vacuum technology
5. electrochemical analysis (one publication)
6. high energy inorganic reactions (two publications)
7. remote handling of dangerous materials (two patents)
8. computer controlled gas chromatography systems

SCIENTIFIC PUBLICATIONS

- Root, C.B.: Ultraviolet Spectrophotometric Determination of Mixtures of Vanadium (IV) and Vanadium (V). Anal. Chem. 37, 1600 (Nov. 1965)
- Root, C.B.: High Temperature Sample Furnace for the Cary 14R Spectrophotometer. Journal of Scientific Instruments, Series 2, Vol. 1, 683 (1968)
- Root, C.B. and Hunt, J.B.: Cathodes for High Energy Density Thermal Batteries. Electrochemical Society, Chicago, IL (Oct. 1967)
- Root, C.B. and Sutala, R.A.: Metal Fluoride Compounds as Cathodes for Thermal Batteries. 22nd Annual Power Sources Conference (May 1968)
- Root, C.B., Ayres, J.N. and Kilmer, E.E.: Electroplating Explosive Devices. NOLTR 69-131, 15 (Dec. 1964)
- Root, C.B. and Burke, B.A.: Standardized Thermodynamic Data. NOLTR 62-211, 23 (July 1963)
- Root, C.B.: Thermoanalytical Investigations of the Cuprate (III) Anion. NOLTR 68-185, 20 (Dec. 1968)
- Root, C.B.: Copper (III) Compounds in Molten Salt Media, Ph.D. Thesis, The Catholic University of America, Univ. Microfilm No. 69-18, 576 (1969)

PATENTS

- Method for Preparing Pure Dry Fluorides, by C.B. Root, U.S. Patent No. 3,565,700 (Feb. 1971)
- Electrochemical Cells Having Transition Metal Fluoride Cathode and an Alkali Metal Fluoride Electrolyte, by Hunt, J.B. and Root, C.B., U.S. Patent No. 3,498,843 (March 1970)

HONORS AND AWARDS

- Outstanding Civilian Achievement Award, U.S. Navy, 1968
- NASA Research Fellow, 1965 to 1966
- Ann Fromme Memorial Science Scholar, 1962
- Illinois State Scholar, 1960 to 1963
- Sigma Xi Honorary Science Fraternity, 1969

PROFESSIONAL ORGANIZATION MEMBERSHIPS

- American Chemical Society
- American Association for the Advancement of Science