



DEKALB Genetics Corporation
62 Maritime Drive, Mystic, CT 06355-1958
860/572-5200 FAX 860/572-5240

RECEIVED
REGION 1
2006 OCT -5 PM 12:29

October 2, 2006

Licensing Assistance Section
US Nuclear Regulatory Commission
Region 1
475 Allendale Road
King of Prussia, PA 19406-1415

Br. 2

03032126

Subject: Amendment Number 11 to License No. 06-28624-01

Dear Sir or Madam,

Enclosed is a USNRC Form 313 and associated materials in support of a proposed amendment to the DEKALB Genetics Corporation materials license, number 06-28624-01. In this amendment we are requesting your approval of a new Radiation Safety Officer for the site.

On June 2, 2006, our previous Radiation Safety Officer separated from the company. On that day our ES&H lead, David Miller, notified Stephen Hammann at NRC; and since then Mr. Miller has served as interim RSO. Now Dr. Christopher Bonin has completed a Radiation Safety Officer training course and we are requesting that he be listed as RSO. Enclosed you will find his certificate of completion for the course, along with an overview of course content. Dr. Bonin's radioactivity training and experience were provided to NRC in an amendment request dated December 20, 2005.

This license amendment request is signed by Ms. Nancy E. Hamilton, Secretary of DEKALB Genetics Corporation. The original document and one copy are provided for your convenience. Please contact me at (860) 572-5202 for any further information or clarification.

Sincerely,

John P. Purcell, Ph.D.
Mystic Site Lead
DEKALB Genetics Corporation

Enclosures: NRC Form 313
Christopher Bonin Certificate of Completion, RSO Training
RSO training course content and information

Estimated burden per response to comply with this mandatory 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. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

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.

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:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, MISSISSIPPI, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

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 BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-4005

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 06-28624-01

☐

C. RENEWAL OF LICENSE NUMBER _____

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

DEKALB Genetics Corporation
Mystic Research Center
62 Maritime Drive
Mystic, CT 06355-1958

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

DEKALB Genetics Corporation
Mystic Research Center
62 Maritime Drive
Mystic, CT 06355-1958

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

John P. Purcell, Ph.D.

TELEPHONE NUMBER

(860) 572-5200

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. LICENSE 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

Nancy E. Hamilton, Secretary

SIGNATURE

Nancy E. Hamilton

DATE

9/26/2006

FOR NRC USE ONLY

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

CERTIFICATE OF ACHIEVEMENT

This is to Certify that

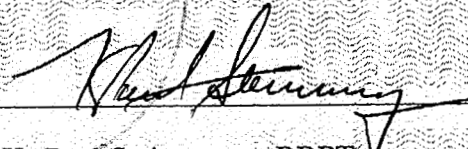
CHRISTOPHER PAUL BONIN

Has Completed 40 Hours of

Radiation Safety Officer Training

September 11 -15, 2006




K. Paul Steinmeyer, RRPT
Radiation Safety Associates, Inc.

COURSE OBJECTIVES AND DETAILED OUTLINE

In a congenial, non-threatening learning environment:

1. Obtain enough theoretical knowledge about mathematics, radiation and radioactivity to be an effective RSO;
2. Practice the basic skills required to be possessed by the RSO;
3. Become familiar with using the regulations and license requirements to solve problems and make decisions.

Hands-On Experiences

One to two hours per day will be devoted to hands-on activities: laboratory measurements and problems, performing contamination and radiation surveys, performing sealed source leak tests, documenting surveys, reviewing dosimetry results, reviewing instrument calibration reports, etc.

Successful Completion

No written exam is required for the successful completion of this course, but 100% attendance and participation is expected. A take-home exam is available for those who need or want a grade.

Day 1

Welcome, course administration, introductions	0.5 h
Chapter 1. The RSO and the Regulatory Structure	0.5 h
Chapter 2. The Atom	0.5 h
Chapter 3. Radiation, Radioactivity and Decay	2 h
Chapter 4. Units of Measure	1 h
Chapter 5. Radiation Interactions with Matter	1 h
Chapter 6. Background Radiation	1 h

LAB EXERCISES, DEMONSTRATIONS, PROBLEMS 1.5 h

- Lab 1. Mass-to-Energy Conversion and Binding Energy Calculation.
- Lab 2. The Nature and Attributes of Alpha, Beta and Gamma Radiation
- Lab 3. Radioactive Decay Problems
- Lab 4: Inverse Square Calculations and Measurements
- Lab 5: Gamma Constants and Exposure Rate
- Lab 6: Unit Conversion
- Lab 7: Determine Detector Efficiency

Day 2

Chapter 7. Applications of Radiation Technology	0.5 h
Chapter 8. Biological Effects	1 h
Chapter 9. Personal Dosimetry	2 h
Chapter 10. Radiation Detection and Measurement	2 h

LAB EXERCISES, DEMONSTRATIONS, PROBLEMS 2.5 h

- Lab 8: Predict Neutron Activation Products and Decay Schemes
- Lab 9: *Bremsstrahlung*
- Lab 10: Energy From Nuclear Fission
- Lab 11: Background Radiation Measurements

Day 3

Chapter 11. External Exposure Control and Surveys	1 h
Chapter 12. Distance and Shielding	2 h
Regulations and Guides	3 h

LAB EXERCISES, DEMONSTRATIONS, PROBLEMS 2 h

Lab 12: Perform and Document an External Exposure Rate Survey
Lab 13: The Effect of Source-to-Detector Distance on Counting Efficiency
Lab 14: Calculating Required Lead Shielding Thickness
Lab 15: Radiation Dose Rate Determination Using Distance and Shielding

Day 4

Chapter 13. Contamination Control	1 h
Chapter 14. Counting Radioactive Samples and Statistics	1.5 h
Chapter 15. Air Sampling and Evaluation	1.5 h
Chapter 16. Internal Exposure Control and Dose Assessment	2 h

LAB EXERCISES, DEMONSTRATIONS, PROBLEMS 2 h

Lab 16: Perform and Document a Contamination Survey
Lab 17: Perform and Document a Sealed-Source Leak Test
Lab 18: Proving the Quality of a Nuclear Counting Program Using Counting Statistics
Lab 19: Perform and Document an Airborne Contamination Survey
Lab 20: Calculate TEDE From an Ingestion Incident

Day 5

Chapter 17. Radioactive Material Receipt, Handling, Control and Disposal	1.5 h
Chapter 18. Packaging and Shipping Radioactive Material	0.5 h
Chapter 19. License Requirements and the Radiation Protection Program	2 h
Chapter 20 Emergency Planning	1 h
Chapter 21 Audits	1 h
Chapter 22 Decommissioning	1 h

LAB EXERCISES, DEMONSTRATIONS, PROBLEMS 1 h

Lab 21: Receiving a Labeled Package of Radioactive Material
Lab 22: Package a Radioactive Source for Shipment
Lab 23: License Requirements
Lab 24: Emergency Planning
Lab 25: Develop an Audit Checklist
Lab 26: Regulatory Research Questions

This is to acknowledge the receipt of your letter/application dated

10/2/2006, and to inform you that the initial processing which includes an administrative review has been performed.

☒ Amendment 06-28624-01 There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

☐ Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number 139520.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.