UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
612 EAST LAMAR BLVD, SUITE 400
ARLINGTON, TEXAS 76011-4125

May 22, 2009

J.R. Simplot Company
Simplot Plant Sciences
ATTN: Dr. Rekha Chawla
Radiation Safety Officer
5363 W. Irving St.
Boise, ID 83706

SUBJECT: NEW LICENSE

Please find enclosed NRC License No. 11-29338-01. The license is authorized for possession only due to additional information that is required prior to authorizing the use of the requested radioactive material. Enclosed are the deficiencies which we discussed and which require your response. Please respond to this request within 15 days from the date of the letter. You may respond by fax to (817) 860-8263 or by email to Rachel.Browder@nrc.gov. If you have any questions regarding our discussion or this request, please contact me at (817) 276-6552. When responding to this request, please include the license, docket and control numbers, located at the bottom of this letter. An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14)(v).

The NRC needs your Taxpayer Identification Number in order to make payments (refunds). Please complete and return NRC Form 531, "Request for Taxpayer Identification Number," to the highlighted address in Item 5 on Form 531, in the enclosed envelope for your convenience.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public that can result from failure to comply with NRC requirements, you must conduct your radiation safety program according to the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate by NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.

2. Notify NRC in writing of any change in mailing address.

3. By 10 CFR 30.36(d) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:

   a. When you decide to terminate all activities involving materials authorized under the license whether at the entire site or any separate building or outdoor area;

   b. If you decide not to acquire or possess and use authorized material; or

   c. When no principal activities under the license have been conducted for a period of 24 months.

4. Request and obtain a license amendment before you:

   a. Change Radiation Safety Officers;

   b. Order byproduct material in excess of the amount, radionuclide or form authorized on the license;

   c. Add or change the areas or address(es) of use identified in the license application or on the license; or

   d. Change the name or ownership of your organization.

5. Submit a complete renewal application or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

In addition, please note that NRC Form 313 requires the applicant, by signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant. Since the NRC also accepts a letter requesting amendment of an NRC license, the signatory for such a request should also be the licensee or certifying official rather than a consultant.

NRC will periodically inspect your radiation safety program. Failure to conduct your program according to NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the NRC Enforcement Policy. The NRC Enforcement Policy is available on the following internet address: http://www.nrc.gov/reading-rm/doc-collections/enforcement/.

NRC no longer publishes the NRC Rules and Regulations loose leaf supplements. However, an electronic version of the NRC's regulations is available on the NRC Web site at www.nrc.gov. Additional information regarding use of radioactive materials may be obtained on the NRC Web site at http://www.nrc.gov/materials/miau/mat-toolkits.html. This site also provides the link to the toolbox for updated information on the revised regulations for naturally-occurring and accelerator-produced radioactive materials (NARM).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

Thank you for your cooperation.

Sincerely,

Rachel S. Browder

Rachel S. Browder, Health Physicist
Nuclear Materials Safety Branch B

Docket: 030-37987
License: 11-29338-01
Control: 472157

Enclosures: As stated

Request For Additional Information

1. Please provide documentation on the training experience of the proposed users and RSO for handling the requested Phosporus-32.

2. Provide the instructor's name and experience, who will be conducting the annual training course.

3. Provide the acceptable passing grade on the annual training exam.

4. Provide a commitment to receive packages as soon as practical after receipt but not later than 3 hours after the package is received or not later than 3 hours from the beginning of the next business day if the package is received after working hours. (10 CFR 20.1906)

5. Commit that the beta safety screens are approximately 3/8" acrylic glass or polycarbonate for the 1.71 MeV beta particle. In addition, the beta safety screen(s) needs to be between the radioactive material and the workers. The description indicates that the plexiglass is behind the backsplash along the back wall.

6. Commit to using shielding when handling P-32 and maintaining ALARA.

7. Commit that the storage of P-32 in the refrigerator will be stored inside shielded containers.

8. Provide description of the shielding of the waste container that is temporarily stored under the bench. Clarify whether the waste container is stored under the bench for 140 days and is moved to the S hallway or is it stored in the S hallway for 140 days.

9. Revise the procedure for receipt to ensure that the package is surveyed prior to opening in accordance with 10 CFR 20.1906.

10. Commit to exposure monitoring to include users wearing finger rings or wrist badges for the material requested. Explain whether 50 microcuries will be the maximum limit for each order or will the quantity ordered be greater and aliquots of 50 microcuries will be taken? Please note that the dose rate of 1 mCi P-32 over 1 cm^2 area of skin is approximately 2000 rads/hr at the surface and 200 rads/hr at 1 cm.

11. Provide a list of the emergency and operating procedures that have been developed.

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee	
1. J.R. Simplot Company Department of Plant Sciences 2. 5369 West Irving Street Boise, Idaho 83706	3. License number 11-29338-01 4. Expiration date May 31, 2019 5. Docket No. 030-37987 Reference No.

6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Phosphorus 32	A. Any, except sealed sources	A. 20 millicuries

9. Authorized Use:

A. For possession only.

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities located at 5369 West Irving Street, Boise, Idaho.

11. A. Licensed material shall be used by or under the supervision of Hua Yan, Ph.D., Jingsong Ye, Ph.D., Hui Duan, Ph.D., Caius Rommens, Ph.D.

B. The Radiation Safety Officer for this license is Rekha Chawla, Ph.D.

12. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:

A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and

B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License Number
11-29338-01

Docket or Reference Number
030-37987

C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of the disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.

13. Radioactive waste generated shall be stored in accordance with the statements, representations and procedures included with the waste storage plan described in the licensee's application dated February 19, 2009.

14. The licensee shall not use licensed material in or on human beings except as provided otherwise by specific condition of this license

15. Experimental animals or the products from experimental animals that have been administered licensed materials shall not be used for human consumption.

16. This license does not authorize commercial distribution of licensed material.

17. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

18. The licensee shall maintain records of information related to decommissioning as specified in 10 CFR 30.35(g) until this license is terminated by the Commission

19. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.

20. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.

A. Application dated February 19, 2009

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: May 22, 2009

By: Rachel S. Browder

Rachel S. Browder, Health Physicist
Nuclear Materials Safety Branch B
Region IV
Arlington, Texas 76011-4125