

MAY 28 1985

Kraft, Inc.  
Research & Development  
ATTN: Trevor J. Walter, Ph.D.  
Basic Food Science Laboratory  
801 Waukegon Road  
Glenview, IL 60025

Gentlemen:

We have reviewed your application dated June 7, 1984 requesting renewal of License Number 12-07165-01 and find that we will need additional information as follows:

PROGRAM DESCRIPTION

1. Please indicate the method of disposal of all of the radionuclides, Atomic Nos. 1 to 83, that were possessed and used under the previous broadscope license and that you are not requesting authorization for in your renewal application.
2. Indicate the disposition of the Kay Ray Model 7062P density gauges that were added to your license by Amendment No. 13.
3. Please characterize your program by indicating the approximate quantities of radionuclides that will be used per experiment.
4. Indicate if you will use radioactive material in animals or will perform hydrogen-3 labelling procedures. If so, submit the radiation safety procedures that you will follow to protect health and safety and to assure compliance with the regulations.
5. Since you have requested a limited scope license at this time, as opposed to the broadscope license as in the past, the NRC now has the authority to approve individual users, approve laboratory facilities and work areas, and to list specific radionuclides. You are no longer required to have a Radiation Safety Committee. In view of the above, please modify your manual "Rules, Recommendations and Procedures for Working with Radioactive Materials" on pages 12 and 13 of your application dated June 7, 1984, to reflect the changes in the authority of the committee and the NRC.

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GAUGES

6. Your application dated June 7, 1984 requests authorization for an ICN Chemical Gauge Model No. 1275. As we cannot find this model no. in our registration of approved devices, please recheck the gauge model number and determine if this gauge is generally licensed or specifically licensed. Provide the information. If your device(s) is only designed for your facility and not used anywhere else, it is considered a custom device and you should submit information for a custom review in accordance with the enclosed device review guide. This information can be obtained from the manufacturer of the device.
7. Please submit the instructions that you will provide to employees to prevent them from entering or placing their hands in the radiation beams of the gauges during maintenance, repair or other work on or around the gauges. Your procedures should include posting warnings and instructions, step by step procedures for closing and locking the gauge shutter, and the name of the person responsible for carrying out and enforcing these procedures.
8. Submit the name and training of at least one individual who will supervise the use of the gauges. This person must have had experience and training with the sealed sources. Training by the manufacturer's representative is adequate training.
9. It is not clear who will perform service operations such as relocation, maintenance, repair, removal of sources, etc., on your level gauges. Please clarify. If these will be performed by the manufacturer, please so state. If these will be performed in-house, you will need to submit all the information requested in Sections VII.1 and VII.3 of the enclosed guide entitled "A Guide for Preparation of Applications for Nonportable Gauging Devices".
10. Provide descriptions and brief diagrams of the locations of each gauge that is in use or proposed. Include distances to the nearest occupied area, personnel access to the gauge or to inside the vessel on which the gauge is mounted, and the location of security devices (locks) and appropriate warning signs and instructions.

RADIATION SAFETY PROGRAM

11. Describe your routine survey program including the following:
  - A. The types of surveys to be performed and the frequency. We recommend that all use and storage areas be surveyed by the users for removable surface contamination (wipe test) weekly when using millicurie quantities and monthly when using less than one millicurie. In addition to users' surveys, the RSO should perform the same surveys at least quarterly. Refer to Regulatory Guide 8.23, Table 1 on page 8.23-8.

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- B. Specify the levels of contamination above which corrective actions will be taken. Describe the corrective actions. For recommended action levels refer to Regulatory Guide 8.23, Table 2, on page 8.23-8.
  - C. Describe the records that will be maintained by each user and the RSO.
12. Radiation workers (technologists, etc.) must receive instruction as specified in 10 CFR 19.12 (enclosed). Note that many of these items pertain to circumstances at your particular institution; therefore, you may not assume that this instruction has been adequately covered by prior occupational training, Board certification, etc. Please outline and submit your program for providing the necessary instruction. Confirm that this instruction will be given both initially and annually thereafter on a refresher basis.
  13. Ancillary personnel (clerical, housekeeping, security, etc.) whose duties may require them to work in the vicinity of radioactive material (whether escorted or not) need to be informed about radiation hazards and appropriate precautions. Outline your method to assure that these employees receive the necessary instructions. Confirm that this instruction will be given both initially and annually thereafter on a refresher basis.
  14. Please supplement your receipt procedures to include precautions to be followed in the event of receipt of byproduct material packages during off-duty hours. As a minimum, these procedures should include:
    - a. designation of a central receiving/storage point
    - b. designation of responsible individual(s)
    - c. precautions to be followed in the event of receipt of a damaged byproduct material package, including:
      - (i) notification of the R.P.O.
      - (ii) retaining delivery personnel until it can be determined that neither they nor their delivery vehicle is contaminated
      - (iii) proper handling procedures for packages suspected of being contaminated

You may choose to adopt the procedures contained in Appendix E, of Regulatory Guide 10.8. Even though they are written for a hospital, you may modify them to fit your program. Submit your procedures.

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15. Describe your procedures for examining incoming packages for leakage, contamination or damage, and for safely opening packages in accordance with Section 20.205 of 10 CFR Part 20. It is recommended that, as a minimum, these include instructions to wear gloves, monitor the packages before opening, and monitor the packing material for contamination after opening. You may adopt and reference Appendix F of Regulatory Guide 10.8 or submit equivalent procedures.
16. In support of your request for 10 millicuries of phosphorus-32, you should develop and submit special safety instructions to be provided to individuals using millicurie quantities of P-32. We recommend that your procedures include, but not be limited to, the following:
  - a. The use of low density shielding (e.g., plexiglass) in order to keep Bremsstrahlung radiation at a minimum.
  - b. A mandatory radiation survey and wipe test procedures after each use.
  - c. The use of finger type extremity monitors for procedures that involve 1 millicurie or more.
  - d. The use of a dry run prior to the performance of unfamiliar procedures in order to preclude unexpected complications. In addition, it is recommended that the Radiation Protection Officer be present during new procedures.

If you have any questions or require clarification on any of the information stated above, you may contact us at (312) 790-5625.

We will continue our review of your application upon receipt of this information. Please reply in duplicate, within 30 days, and refer to Control Number 76955.

Sincerely,

Original Signed By  
Evelyn R. Matson  
Materials Licensing Section

Enclosures:

1. Regulatory Guide 8.23 and 10.8
2. 10 CFR Part 19
3. Nonportable Gauge Guide (1980)
4. Custom Review Guide for Sealed Sources and Devices

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*ERM*  
Matson/cm  
05/22/85