

MAY 30 1985

License No. 20-02848-3
Docket No. 030-04626
Control No. 03781

Polaroid Corporation
ATTN: Frances G. Forster
Radiation Safety Officer
300 Fifth Avenue - 5H
Waltham, Massachusetts 02254

Gentlemen:

This is in reference to your request in a letter dated April 30, 1985 to amend License No. 20-02848-3. In order to continue our review, we need the following additional information:

1. Describe the laboratory equipment that will be used when working with volatile radioactive materials. Indicate when glove boxes or fume hoods will be used. Specify the minimal face velocity on the fume hood and the frequency that it will be tested. Also, provide the name and manufacturer of the instruments used to test the face velocities.
2. Describe your procedures for monitoring incoming isotopes shipments for radiation and contamination. Who will be responsible for making these measurements?
3. Describe the surveys that you will perform to assure compliance with 10 CFR 20. These surveys should evaluate both radiation and contamination levels. Please specify the frequency and the action levels that will be taken when positive results are obtained. A radiation protection program should include the following surveys for radioactive contamination and radiation:
 - a. Laboratory areas (e.g. contamination on bench tops, handling and storage equipment, floor, clothing, hands)
 - b. While work is being done (e.g. breathing zone, air surveys; effluent air surveys)
 - c. In areas associated with disposal (e.g. checking disposed containers, filters)
4. Describe your bioassay program, including the type of bioassay (thyroid counts, urine counts, whole body counts, etc.), the criteria and the frequency for performing bioassays, and the type of action taken when positive results are obtained. I have enclosed copies of Regulatory Guide 8.20, "Application of Bioassay for I-125 and I-131" and the Guidelines for Bioassay Requirements for Tritium." If you will comply with the criteria and the frequency for performing bioassays, and action taken when positive

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results are obtained, please state this in your application. If your criteria, frequency or actions differ, please specify each in the application.

5. Describe your laboratory instructions for working with radioactive materials. It is recommended that your procedures include, but not be limited to, the following topics:
 - a. personnel dosimetry
 - b. mouth pipetting
 - c. storage of food, drink or personnel effects
 - d. protective clothing, gloves, etc
 - e. air monitoring
 - f. dispersion control (hoods, glove boxes, etc.)
6. Describe your emergency procedures to be followed in case of spills or other types of accidents involving radioactive materials. It is recommended that such procedures contain:
 - a. instructions to be followed during minor spills.
 - b. instructions to be followed during major spills.
 - c. your radiation safety officer's name, his office phone number, and a phone number to be used during off-duty hours.
7. A comprehensive closeout survey of 640 Memorial Drive, Cambridge, Massachusetts and 1250 Main Street, Waltham, Massachusetts will be required before they may be released for use as unrestricted areas. The enclosed guide may assist you in completing these surveys.
8. Cobalt-57 is accelerator produced isotope and not byproduct material therefore not subject to licensing by NRC. You should contact your state regulatory authorities to determine state licensing or registration requirements for use of this isotope.
9. It appears that Dr. William T. Vetterling does not have any experience working with non sealed radioactive materials. Please provide additional information regarding his experience with iodine-125, hydrogen-3, or carbon-14.

We will continue our review upon receipt of this information. Please reply in duplicate to my attention at the Region I office and refer to Mail Control No. 03781.

Sincerely,

Original Signed By:
Jack Davis


Jack Davis
Nuclear Materials Safety Section B
Division of Radiation Safety
and Safeguards

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Enclosures:

1. 10 CFR Part 20
2. Regulatory Guide 8.20
3. Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material.
4. Guidelines for Bioassay Requirements for Tritium

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