19 NOV 1987

Docket No. 030-30254 Control No. 107938

Inolex Chemical Company ATIN: Gilbert R. Mintz Director 5301 Tacony Street, Bldg. 107 Philadelphia, Pennsylvania 19137

Gentlemen:

This is in reference to your application dated October 12, 1987 for a byproduct material license. In order to continue our review, we need the following additional information:

 Item 7., of your application, you provide the training and experience of individuals responsible for your Radiation Safety Program. It appears that Dr. Mintz has only had limited training (lecture of five hours) and limited experience with radioactive materials. The description of Dr. Mintz's training and experience does not contain enough information for the NRC to approve him as Radiation Safety Officer. Please provide additional information that demonstrates he has the competence to direct your Radiation Safety Program.

In addition, the description of Messrs. Casey and Covert's training and experience does not contain sufficient information to authorize them to use and supervise the use of the byproduct material that you have requested. Training and experience must be commensurate with the proposed use. After Messrs. Casey and Convert have obtained formal training and have worked under the supervision of Dr. Mintz, you may submit their names with their training and experience for inclusion on the license.

2. Item 10.(d), Radiation Monitoring", of your application, you specify that monitoring for contamination will be performed once a quarter for low energy beta emitters. However, you did not specify the frequency of high energy beta emitters or gamma emitters. In addition, with the amount of material that you requested in your license, monitoring for contamination every three months is not sufficient. Good radiological health practices dictate that monitoring to be performed after each experiment or at least once per week. Please modify the frequency for monitoring the work environment.

In addition, you specify that survey instruments will be used to monitor for gamma emitters. Please specify the frequency that you will do this monitoring and that you will maintain records of these surveys.

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- 3. Item 10.(f), "Bioassay for Tritium and I-125 and I-131", you state that bioassays are not necessary. However, with the quantity of material that you have requested a bioassay program is warranted. Please 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. In addition, provide the type of action you will take when positive results are obtained. If you will comply with the criteria and frequency for performing bioassays, and action taken when positive results are obtained from Regulatory Guide 8.20, "Application of Bioassay for I-125 and I-131" and the "Guidelines for Bioassay for Tritium", please state this in you response. If your criteria frequency or action differ, please specify each in your response.
- Describe you 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 pipeting
 - c) storage of food, drink, or personnel effects
 - d) protective clothing, gloves, etc.
 - e) air monitoring
 - f) dispersion control (hoods, glove boxes, etc.)
- 5. 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.
- 6. Describe your procedures for ordering radioactive materials, for receipt of materials, and for notification of responsible persons upon receipt of radioactive material. Who has responsibilities in these situations?
- 7. Who assumes the responsibility for monitoring incoming isotopes shipments for radiation and contamination?
- 8. Describe the surveys that you will perform to assure compliance with 10 CFR Part 20. Please specify the frequency and the active levels that will be taken when positive results are obtained. A radiation protection program should include surveys for air monitoring, including breathing zone and effluent air surveys.
- 9. Describe the laboratory equipment that will be used when working with volatile radioactive materials. Indicating when fume hood will be used. Specify the minimal face velocity on the fume hood and the frequency that it will be tested. Also, provide the name of the instruments used to test the face velocities.

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- 10. Describe the frequency for having your radiation detection equipment calibrated.
- 11. Describe the duties responsibilities and authority of the Radiation Safety Officer. Typically, the RSO's duties and responsibilities should consider the following:
 - Surveillance over all activities involving radioactive materials. a)
 - Investigate overexposures, accidents, spills, loses, thefts, etc. b)
 - Receiving and opening shipments of radioactive material arriving at c) the facility and packaging and shipping all radioactive material leaving the facility.
 - d) Personnel Monitoring equipment.
 - Determining the need for bioassay. e)
 - f) Notifying individuals of their exposure.
 - Supervising the radioactive waste disposed program. g)
 - h) Storing all radioactive material not in current use, including waste.
 - i) Keeping an inventory record.
 - j) Taking emergency action if control of radioactive material is lost.
 - k) Performing periodic radiation surveys.
 - Training personnel who work in or frequent areas where radioactive 1) material is used.
 - m) Maintaining copies of all records.

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. 107938.

If we do not receive a reply from you within 30 calendar days from the date of this letter, we shall assume that you do not wish to pursue your application.

Sincerely.

Original Signed By: Jack Davis

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

Enclosures: 1. 10 CFR Parts 20 and 30

- 2.
- Regulatory Guides 10.7 and 8.20
- "Guidelines for Bioassay for Tritium" 3.

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