

PURDUE UNIVERSITY
OFFICE OF HEALTH PHYSICS AND RADIOLOGICAL CONTROL
BIONUCLEONICS DEPARTMENT
WEST LAFAYETTE, INDIANA 47907

October 24, 1979

Mr. James G. Keppler, Director
Region III, U.S. Nuclear Regulatory Commission
799 Roosevelt Road
Glen Ellyn, IL 60137

Dear Mr. Keppler

Ref: License No. 13-02812-04

I am writing in reply to your letter of October 4, 1979, concerning the recent inspection of the radioactive waste processing facility at Purdue University. Your letter and your inspection Report No. 79-03 indicate a concern for a potential fire hazard in one of the waste storage buildings due to the presence of liquid scintillation solutions (primarily toluene).

The position of the Purdue Radiological Control Committee on this matter is that we wish to minimize all hazards associated with the waste handling and processing, including radiological, fire, and other hazards that may arise. Accordingly, we share the concern expressed in your report and have taken, or are taking the following actions to minimize fire potential:

1. We have requested an inspection of the facility by a fire safety specialist. The inspection was made (September 14, 1979, by Michael J. Koppes, Fire Protection Specialist and acting chief of the Purdue Fire Department. A copy of Mr. Koppes' report to us is attached.
2. Electric service to the building has been cut off (as of September 14, 1979). At the present time, it has been decided that this alternative is more practical than installing explosion-proof switches, lights, and conduit.
3. The badly corroded cans are being eliminated by disposing of the contents in the normal manner or by transferring the contents to new cans where necessary. This processing is being done on a regular basis and is expected to be completed by October 31, 1979.
4. Additional venting of the building is planned, namely, the addition of door louvres in the front and rear doors. This will further minimize the potential for build-up of toluene vapors and thus reduce the potential for fire or explosion. Cost estimates for the installation of louvres were obtained on October 17, 1979. Maintenance personnel have not scheduled an installation date.

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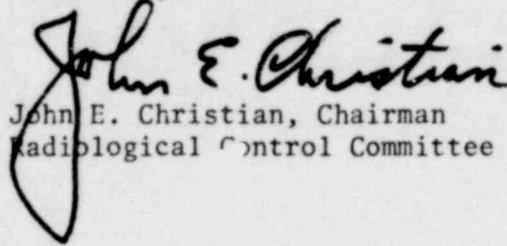
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October 24, 1979

We believe that the items outlined above will greatly minimize any potential fire hazard that might have existed in the waste storage building. Please let me know if additional information is required.

Appreciation is expressed to your staff members (W. H. Schultz and D. G. Wiedeman) for their time and effort in making the inspection and in providing a timely response to the Purdue students who expressed genuine concern about the handling of low-level wastes on this campus.

Sincerely,

A handwritten signature in cursive script that reads "John E. Christian". The signature is written in dark ink and is positioned above the typed name and title.

John E. Christian, Chairman
Radiological Control Committee

JEC:mhf

cc: Virgil Konopinski, Indiana State Board of Health
Diana McClain, Purdue Exponent
Stephen Kent, National Regulatory Commission

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**PURDUE
UNIVERSITY** DEPARTMENT OF PHYSICAL PLANT

October 24, 1979

Paul L. Ziemer, Ph.D.
Radiological Control Officer
Purdue University
West Lafayette, Indiana 47907

RE: North Radioactive Waste
Storage Building

Dear Dr. Ziemer:

As per our conversation of September 14, 1979, the following is a list of recommendations on the storage of toluene at your facility.

1. Electrical:

Due to the area, use and properties of toluene, explosion proof electrical equipment and wiring will not be required for this particular area.

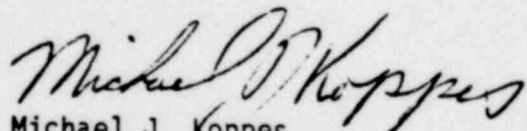
- a. Main safety disconnect shall be locked in the open position as discussed.

2. Ventilation:

Although existing ventilation appears to provide adequate protection for both occupational exposure and hazardous vapor build-up, additional louvers shall be provided at the east and west ends of the structure for additional ventilation.

3. Liquid Storage:

Corroded and/or damaged containers should be surveyed and dealt with accordingly.


Michael J. Koppes
Fire Protection Specialist
Safety and Security

MJK/bh



Administrative Services Building
West Lafayette, Indiana 47907

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