



Ohio Agricultural Research  
and Development Center

Office of Director  
1680 Madison Avenue  
Wooster, OH 44691-4096  
Phone 216-263-3703  
FAX 216-263-3688

Room 116  
2120 Fyffe Road  
Columbus, OH 43210-1099  
Phone 614-292-3897  
FAX 614-292-3263

January 21, 1994

Mr. B. J. Holt, Chief  
Nuclear Materials Inspection, Section I  
U. S. Nuclear Regulatory Commission, Region III  
799 Roosevelt Road  
Glen Ellyn, Illinois 60137

**RE: Reply to Notice of Violation**  
**License No. 34-00410-02**  
**Docket No. 030-05615**

Dear Mr. Holt:

The following are responses to the Notice of Violation from the NRC inspection conducted on November 16, 1993.

- A. A training session had been held for auxiliary persons who may have to work in a restricted area. The follow-up with supervisors to assure that only properly trained persons work in restricted areas was not properly done.

Immediately after the November 17, 1993 meeting with the inspectors, the Superintendent of the Physical Plant was notified on the training requirements and asked to work with the immediate supervisors to assign only properly trained individuals to restricted areas and assist with planning another training session. Another training session was held on December 14, 1993. All supervisors have been provided with a list of persons who have not received training and these people are not being assigned to work in restricted areas.

A video tape of the training session has been prepared for training the remaining people and all new employees. An opportunity to discuss the information and ask questions with the Radiation Safety Officer or the Chair of the Radioisotope Committee will supplement the video tape.

- B. Many of the items in an annual review were discussed at meetings throughout the year but were not clearly identified as annual review. The committee conducted the annual review on November 29, 1993. A copy of the annual review is attached. In the future, the committee will clearly record discussions of the annual review items as they occur in the meetings.

9402230269 940217  
PDR ADOCK 03005615  
C PDR

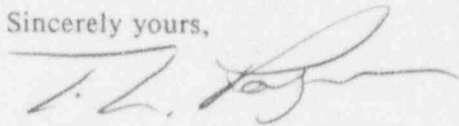
A Century of Science in Wooster  
1892-1992

FEB 1 1994

Mr. B. J. Holt  
January 21, 1994  
Page Two

The NRC license is important to our research. We have strived to meet all of the requirements of the license in the past and will continue to meet the requirements in the future. I hope that the above explanation meets your needs. If you have any questions or need additional information, please contact Mike Brugger, Assistant to the Director for Facilities Administration, 1680 Madison Avenue, Wooster, Ohio 44691, phone 216-263-3636.

Sincerely yours,



Thomas L. Payne  
Director

lws

Enclosure

c J. H. Brown  
M. F. Brugger  
S. J. Kinney  
A. R. Miller

# Annual Review of the Radiation Safety Program

November 29, 1993

## Inventory Control

S. Kinney - See attached bar and pie charts. We are within our limits for all isotopes on this campus (see bar chart).

Limits are high compared to actual use. R. Miller stated that personnel have left and our use is low. S. Kinney--these limits also include storage for decay.

Recommendation: Review these limits over a longer period of time.

(<sup>35</sup>S decay) License Amendment must be taken into consideration before we make any adjustments in Isotope limits.

## Applications and Committee Actions

What are the problems with the review process?

--If application numbers are greater than 5, applications should be sent to all committee members prior to the Quarterly meeting.

--Preapproval (temporary approval): The application is reviewed by the Chair and at least 2 other members of the committee.

Recommendation: If there are an appreciable number of applications to be reviewed a special meeting could be called at the Chair's discretion.

S. Kinney - The trend has been that the number of active protocols is reduced.

Recommendation: 5 year replacement of existing protocols will be considered as new applications, since the committee reviews all of them. The 3 year renewal for a 2 year extension will continue as previously done.

The Application Review and Approval System is working well.

## Personnel Exposure Rates

Film Badges: 5 rems/year are the maximum. Forty-nine personnel have film badges and there was no exposures reported by S. Kinney (see attached survey by Siemens Gammasonics Inc.)

Bioassays were conducted by the RSO for specified personnel and no exposures were observed.

Recommendation: Monitoring is adequate.

## Area Radiation Surveys.

### S. Kinney - Labs

Monthly surveys are conducted by the labs as a minimum requirement and in addition, after every experiment.

<sup>32</sup>P - Lab wipes and one GM counter survey must be documented each month.

No major problems have been found.

### Quarterly Survey. (Requires 2 days to complete by RSO)

Only minor random contamination was found in some areas. All were followed up by RSO to insure labs were clean. Education of users by RSO and Chair of the isotope committee was used to insure the contamination did not reoccur.

No labs have had reoccurring problems.

Recommendation: If reoccurring problems arise, the Chair of the committee and RSO will visit with the P.I. and laboratory personnel.

## Protocol Renewals

These are considered as new applications but will have the same application number as the original protocol (see above application and committee action).

## Other Applicable Documents

Training of non-user (staff, physical plant personnel and custodians).

Recommendation: Training for non-users will be conducted twice per year. RSO ask all P.I.s if any farm workers and other non-users should be included in these training sessions.

### Program

Make sure people are given a perspective of how much radiation is present in the labs. Compare it to common exposure like the sun, dental x-rays and residence location. The Chair should be present at the training sessions.

### Training Attendance:

Sign in sheets are used. Department Associate Chairs, P.I.s and Supervisors will be notified of the Training Session and asked to identify personnel required to attend.

Next non-user training session will be December 14, 1993

Recommendation: Videotape the training session. This tape could be used to train new personnel immediately.

Review of Waste Disposal

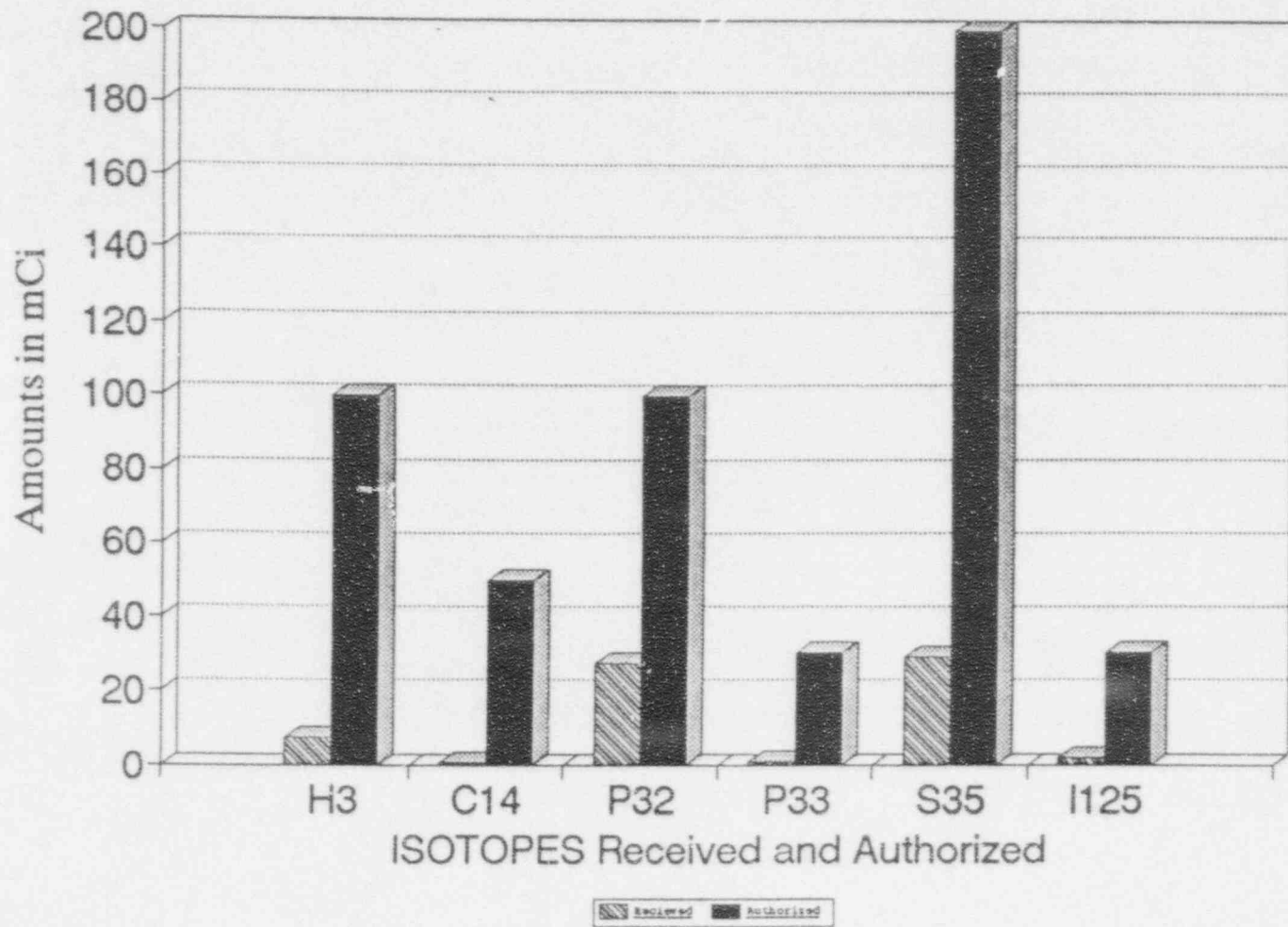
RSO reviewed the current procedures for decay and disposal.

Unused Inventory

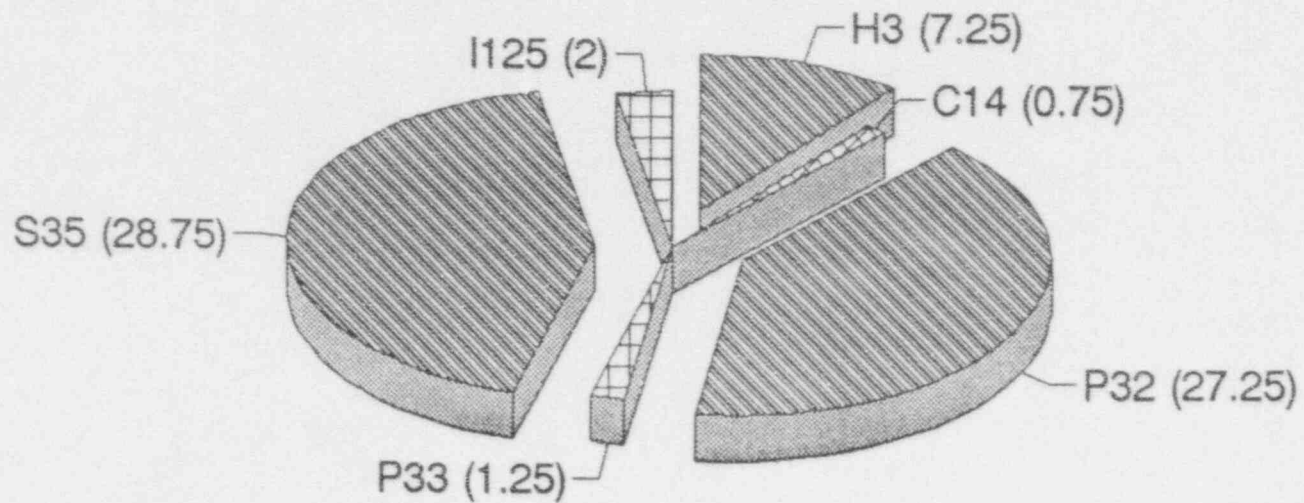
All unused inventory and sealed sources not in use have been disposed.

RECEIVED  
DEC 19 1987  
THE UNIVERSITY OF  
ALABAMA

# ISOTOPES RECEIVED JAN - NOV 1993



# ISOTOPES RECEIVED JAN - NOV 1993



( ) = Amounts in mCi



# SIEMENS

DATE PREPARED: 3/12/93

RECORDED ANNUAL WHOLE BODY EXPOSURES FOR CALENDAR YEAR 1992

## REPORT TO:

OHIO AGRICULTURAL  
RESEARCH & DEVELOP CTR  
STAN KINNEY RAD SAFETY  
1680 MADISON AVE  
WOOSTER OH 44691

## BADGES SHIPPED TO:

OHIO AGRICULTURAL  
RESEARCH & DEVELOPMNT CTR  
RADIATION SAFETY OFFICE  
1680 MADISON AVE  
WOOSTER OH 44691

CUSTOMER NUMBER: 60856

LICENSE NO: 34-00410-02

## ANNUAL DOSE RANGES

NUMBER OF INDIVIDUALS  
IN EACH RANGE

NO MEASURABLE EXPOSURE	49
EXPOSURE < .100	0
.100 - .249	0
.250 - .499	0
.500 - .749	0
.750 - .999	0
1.0 - 1.999	0
2.0 - 2.999	0
3.0 - 3.999	0
4.0 - 4.999	0
5.0 - 5.999	0
6.0 - 6.999	0
7.0 - 7.999	0
8.0 - 8.999	0
9.0 - 9.999	0
10.0 - 10.999	0
11.0 - 11.999	0
EXPOSURE 12.0 OR GREATER	0

TOTAL NUMBER OF INDIVIDUALS REPORTED 49

THE ABOVE INFORMATION SUBMITTED FOR THE TOTAL NUMBER OF  
INDIVIDUALS FOR WHOM PERSONNEL MONITORING WAS (CHECK ONE)

REQUIRED UNDER 10 CFR 20.202(A) OR 10 CFR 34.33(A) DURING  
THE CALENDAR YEAR

PROVIDED DURING THE CALENDAR YEAR

Ohio Agricultural Research  
and Development Center.  
REC'D at Safety and  
Environmental Health on

5 Apr 93 AM

Siemens Gammasonics, Inc.