



# CEDAR CREST COLLEGE

Founded 1867

November 20, 1990

Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19406

Gentlemen:

Subject: Inspection Nos. 030-07074/90-001  
030-20654/90-001

On September 20, 1990, Cedar Crest College was site visited by Ms. Marlene Taylor of the NRC and we were found not in compliance with NRC regulations. A Notice of Violations was sent on October 24, 1990, describing those violations and requiring a letter (per 10 CFR 2.201) explaining the corrective steps taken and those to be taken to avoid further violations.

Appendix A (enclosed) describes those actions taken to bring Cedar Crest College back into compliance with NRC requirements and future actions that will maintain compliance. With the actions taken as described in appendix A and further requirement surveys, Cedar Crest College should achieve full compliance by January 1, 1991.

Cedar Crest College will comply with all Licence Nos. 37-12881-01 and 37-12881-02 regulations and requirements and with all other NRC requirements.

If further explanation or documentation is needed, please contact me.

Sincerely,

Brian S. Misanko  
Chairman  
Department of Biology

Enclosure:  
Appendix A  
Documentation

9101220033 910109  
REG1 LIC30  
37-12881-01 PDR

Appendix A

Subject: Inspection Nos. 030-07074/90-001 and 030-20654/90-001  
Licence Nos. 37-12881-01 and 37-12881-02

As a result of your inspection conducted on September 20, 1990, the following violations were identified and have been corrected.

- A. Condition 13.A of Licence No. 37-12881-01 states that a 400Ci (presently 239.89Ci) cesium-137 source must be leak tested at intervals not to exceed six months.

Cesium-137 irradiator was leak tested as follows:

Jan. 11, 1990 - Isomedix Inc. Whippany, NJ  
Apr. 20, 1990 - Teledyne Isotopes Westwood, NJ  
Oct. 19, 1990 - Amersham Corp. Burlington, MA

Documents enclosed.

Cedar Crest College has established an agreement with Amersham Corp. to process leak tests for cesium-137 gammator not to exceed six months. This will place Cedar Crest College in compliance with NRC requirements.

- B. Condition 14 of Licence No. 37-12881-02

1. Item 3 of Section III, "Ordering, Receipt, and Storage of Radioactive Materials" of the Cedar Crest College Radiation Handbook, requires that all radioactive materials received must be wipe tested prior to availability for use.

Recent radioactive materials shipment, Oct. 15, 1990, was surveyed and wipe tested as per "Radionuclide Shipment Receipt Report" Document enclosed.

All radioactive material shipments will be surveyed and wipe tested before available for use as required by Item 3 of Section III of Cedar Crest Radiation Handbook and NRC requirements.

2. Item 1 of Section IV " Guidelines Concerning Genetic Engineering Laboratory" of the Cedar Crest College Handbook, requires that surveys of the laboratory will be mandatory on a quarterly basis whether or not radioactive material has been used.

On September 21, 1990, all areas shown for rooms 100 and 137 were wipe tested and counted in a Beckman LS100 counter. (Document enclosed) All areas in Room 100 as listed have been surveyed after each laboratory. (Documents on file) This practice will continue after each laboratory in which radioactive material (liquid or sealed source) has been used.

All areas listed in Rms 100 and 137 (diagram enclosed) will be wipe tested once each quarter whether radioactive material was used or not.

**Amersham Corporation**

40 North Avenue  
Burlington, Massachusetts 01803  
Telephone (617) 272-2000

**518  
LEAK TEST**

Co. Name DEPT OF BIOLOGY CEDAR CREST COLLEGE P.O. No. 13364  
Street 100 COLLEGE AVE NRC or 37-12881-01  
City, State ALLENSTOWN PA 18104-6146 State License No.  
Projector \_\_\_\_\_ Serial No. \_\_\_\_\_  
Model No. \_\_\_\_\_  
Source GAMMATOR-50-34B Serial No. 1013 Curies \_\_\_\_\_  
Model No. \_\_\_\_\_  
IR-192 \_\_\_\_\_ CO-60 \_\_\_\_\_ CS-137 X Other \_\_\_\_\_  
Wipe Performed By Brian L. Muscato Date Oct 19, 1990

The United States Nuclear Regulatory Commission requires that radiographic sources be tested for evidence of leaking at the time of manufacture and thereafter at not more than six-month intervals. The amount of removable contamination must not exceed 0.005 microcuries. If the test shows more than 0.005 microcurie of removable contamination, the source and equipment must be immediately taken out of service and be repaired or be disposed of. Please note that this source must be tested again on or before

FOR TECH-OPS USE ONLY

PROCESSED AT AMERSHAM ON 11/7/90  
RADIOASSAY <.001 MICROCURIE  
TEST PERFORMED BY A. King  
NEXT LEAK TEST DUE 6 mos

Scott Denver Lens

REPORT OF ANALYSIS

APRIL 20, 1990

# Leak Test Certificate

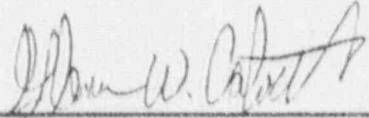
CESIUM — 137 IRRADIATOR

Model 34B Serial No. 1013

This Certifies That The Above Designated  
Unit Has Been Tested for Removable  
Radioactive Contamination.

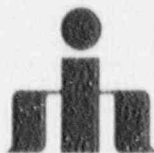
Results: Removable activity less than .005 microcurie of Cs-137

Note: The U.S. Nuclear Regulatory Commission regulations for the model 34B  
Gammator/Gammacell states: If the test reveals the presence of 0.05 microcurie or more  
of removable contamination, the licensee shall immediately withdraw the sealed source  
from use and shall cause it to be decontaminated and repaired or to be disposed.

Certified by: 

Date: January 11, 1990

Next test due: March 22, 1990



Isomedix, Inc.

11 APOLLO DRIVE, WHIPPANY, NEW JERSEY 07981

RADIONUCLIDE SHIPMENT RECEIPT REPORT

TO BE COMPLETED BY PERSON ORDERING

Company ordered from: THE Nucleus Date and Time Oct 2, 90  
Date delivery required Oct 15, 90  
P.O. # 12728  
Amount ordered <sup>32</sup>P 10 uCi Initials BGM  
(U) <sup>133</sup>Ba 1 uCi

TO BE COMPLETED BY PERSON OPENING PACKAGE

P.O. # 12728 / C 101 Survey Date and Time Oct 15, 90  
Name Brian S. M/S/12  
Condition of package  
 OK  Punctured  Wet  Other  
If other - Describe

Radiation units on label <sup>32</sup>P 10 uCi uCi/mCi 4 disks <sup>123</sup>Ba 1 uCi  
Measured Radiation Level  
a. Package Surface .1 mRem/hr X1 scale  
b. 1 meter from surface .05 mRem/hr X1 scale Bkg

Do packing slip and container label agree?  
a. Radionuclide  yes  no, difference \_\_\_\_\_  
b. Amount  yes  no, difference \_\_\_\_\_  
c. Chemical Form  yes  no, difference \_\_\_\_\_

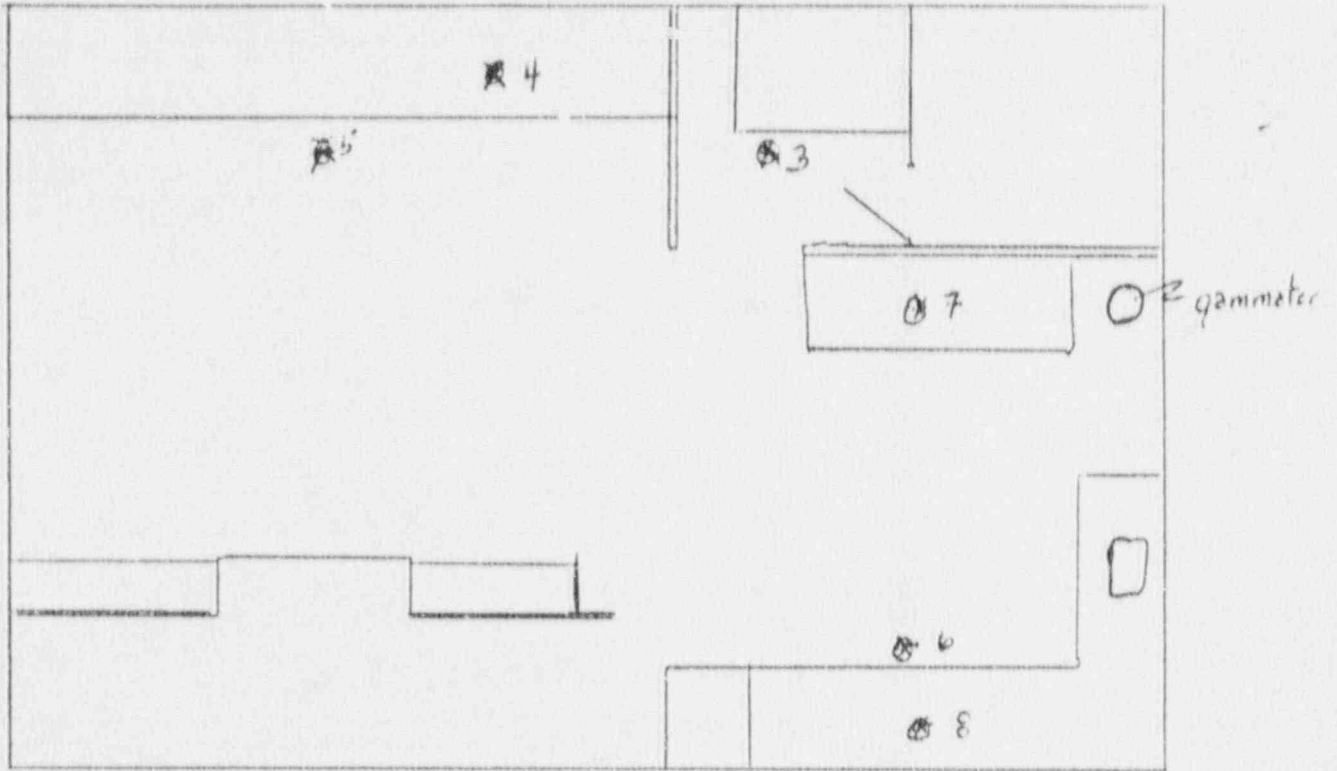
Wipe result  
a. Outer: 40 cpm \_\_\_\_\_ dpm \_\_\_\_\_ mCi BKG 37 cpm  
b. Final Source Container 42 cpm \_\_\_\_\_ dpm \_\_\_\_\_ mCi

Survey Results of Packing Material 0 mRem/hr  
RSO Brian S. M/S/12 Date Oct 16, 90





Room 100 - Rad LAB



Room 137 - GE LAB

