



March 31, 1987

NUCLEAR REGULATORY COMMISSION
REGION III
799 Roosevelt Road
Glen Ellyn, Illinois 60137

LICENSE # 13-23543-01
CONTROL # 82559

Dera Ms. Frazier:

In response to your letter dated March 11, 1987 requesting additional information concerning relocation of the Nuclear Medicine Department, I submit the following:

- I. A. At the present time, we are not using a TC-99m generator. All of the radiopharmaceuticals are delivered by Syncor on a daily basis. However, the hot lab is designed with 1" lead cabinets for storage of generators should we decide to start using them again.
 - B. Radiopharmaceuticals are delivered in lead shielding which are surveyed upon arrival. We store the radiopharmaceuticals in the lead pigs behind the 1" lead shield, and these areas are surveyed daily.
 - C. We return most of the waste products and all unused doses to Syncor in the same manner as they are delivered. The small amount of waste that we generate (ie: additional contaminated needles, test tubes, etc.), are stored in the 1" lead locked cabinet in the hot lab. This waste is stored until surveys demonstrate the waste to be less than normal background radiation.
 - D. Preparation of Group III radiopharmaceuticals is performed using an L-block under the hot lab fume hood and behind a sliding lead shield. In addition, syringe shields and lead pigs are used during preparation and dispensing.
- II. Attached please find copies of the close-out surveys. The old nuclear medicine department was closed in September of 1986. The radiopharmaceutical company (Syncor) was then instructed to stop delivering doses on a routine basis until further notice. All waste products were removed by Syncor at that time.

Wipe tests and a GM survey of the area were performed by James H. Geach

St. Vincent

CARMEL HOSPITAL *a Daughters of Charity Hospital*

13500 North Meridian Street • Post Office Box 1903 • Carmel, Indiana 46032-4903 • (317) 573-7000

8801110127 870504
REG3 LIC30
13-23543-01 PDR

RECEIVED
APR 6 1987
REGION III
APR 6 1987

RTNM, on September 19, 1986. The attached diagrams indicate the readings obtained. (Attachment A/13).

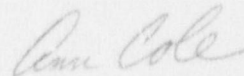
III. Xenon #133

- A. XE #133 will be delivered in lead containers and stored behind lead blocks under the exhaust hood in the attached hot lab of the imaging room.
- B. Attached you will also find a diagram of the new Nuclear Medicine Department which indicates the supplied cfm and return cfm for the imaging area and hot lab. Consistent flow rates have been established and will be monitored on a quarterly basis by the maintenance department. (Attachment C).
- C. Xenon is only used within the restricted nuclear medicine imaging area. We estimate that the volume for XE studies to be approximately four patients/week @ an approximate dose of 10mCi. Attached please find the actual air flow and exchange measurements taken on the quarterly test using a newly calibrated air flow meter on March 27, 1987. (Attachment D).

To date, we have used no more than 35mCi, #133 XE/week in the restricted area, using a Xenon trap system.

I hope the information above will answer your questions; however, if you have others, please do not hesitate to contact me at: (317) 573-7142.

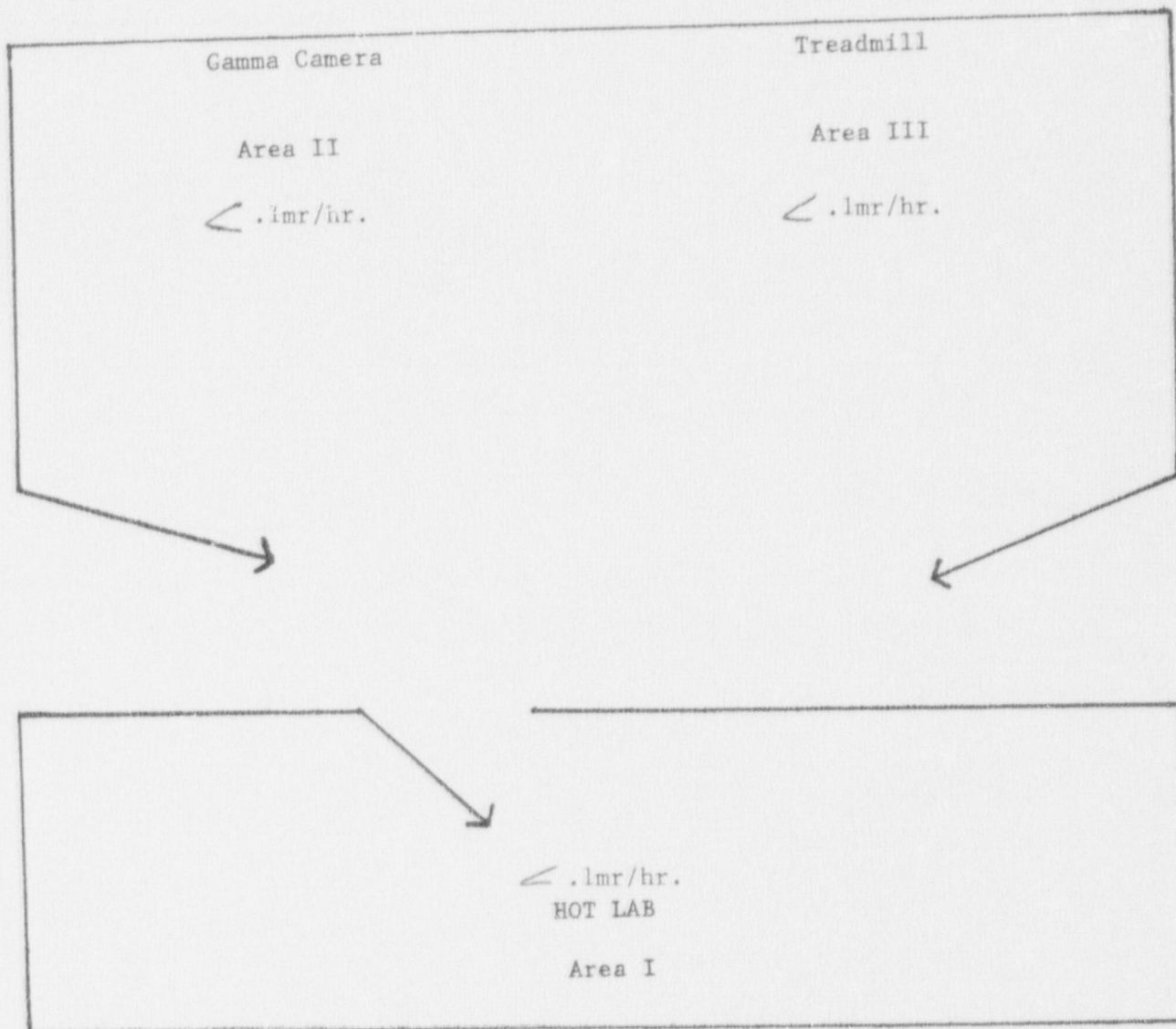
Sincerely,



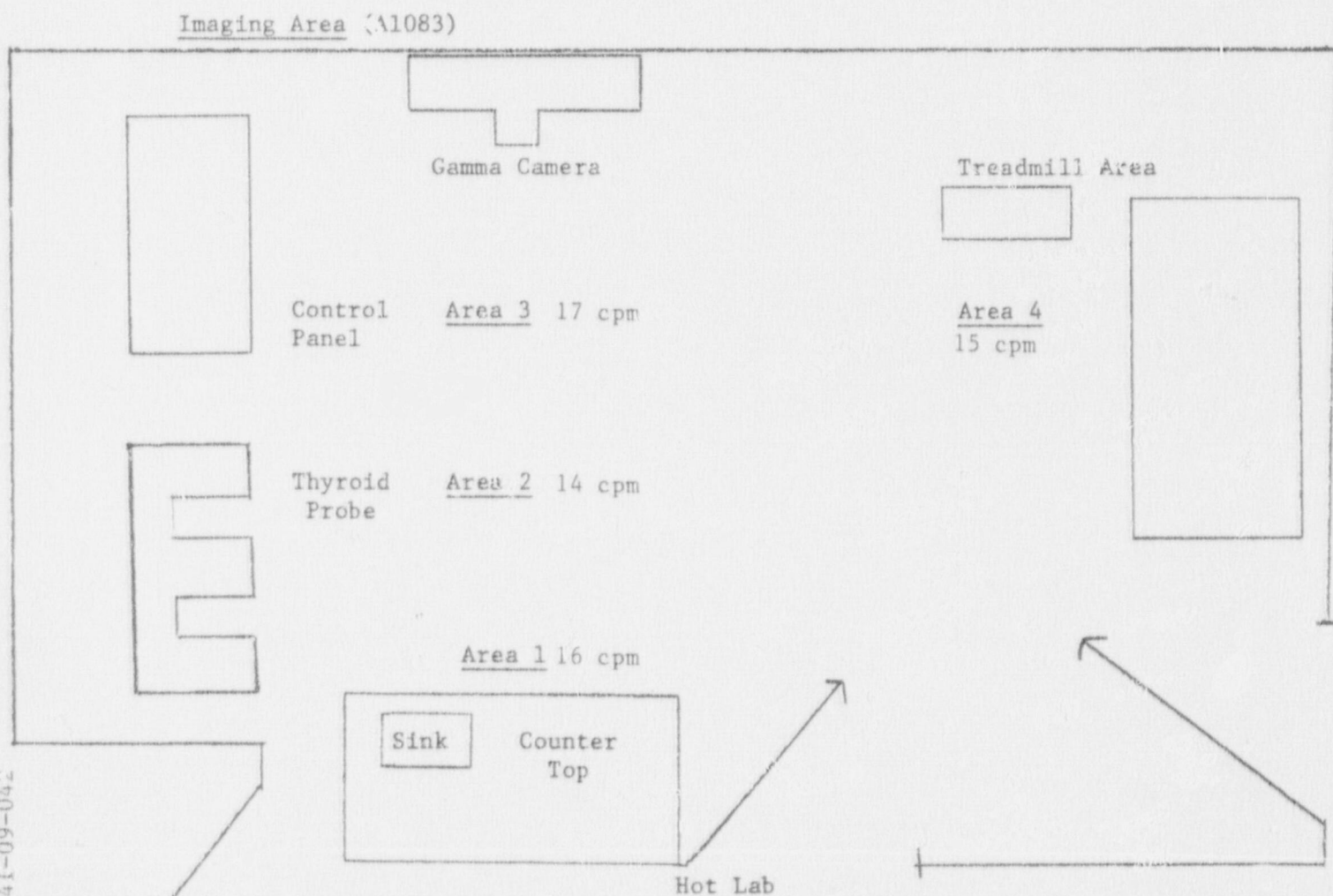
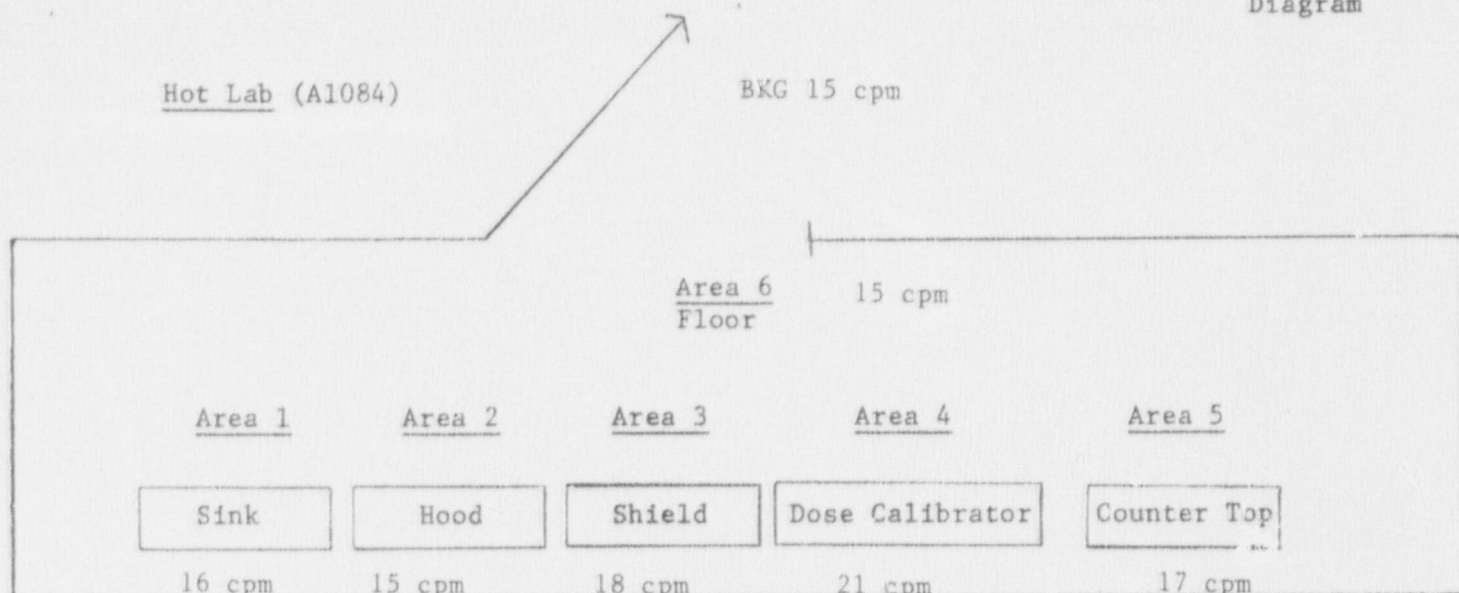
Ann Cole, Manager
Radiology Department

AC:jks

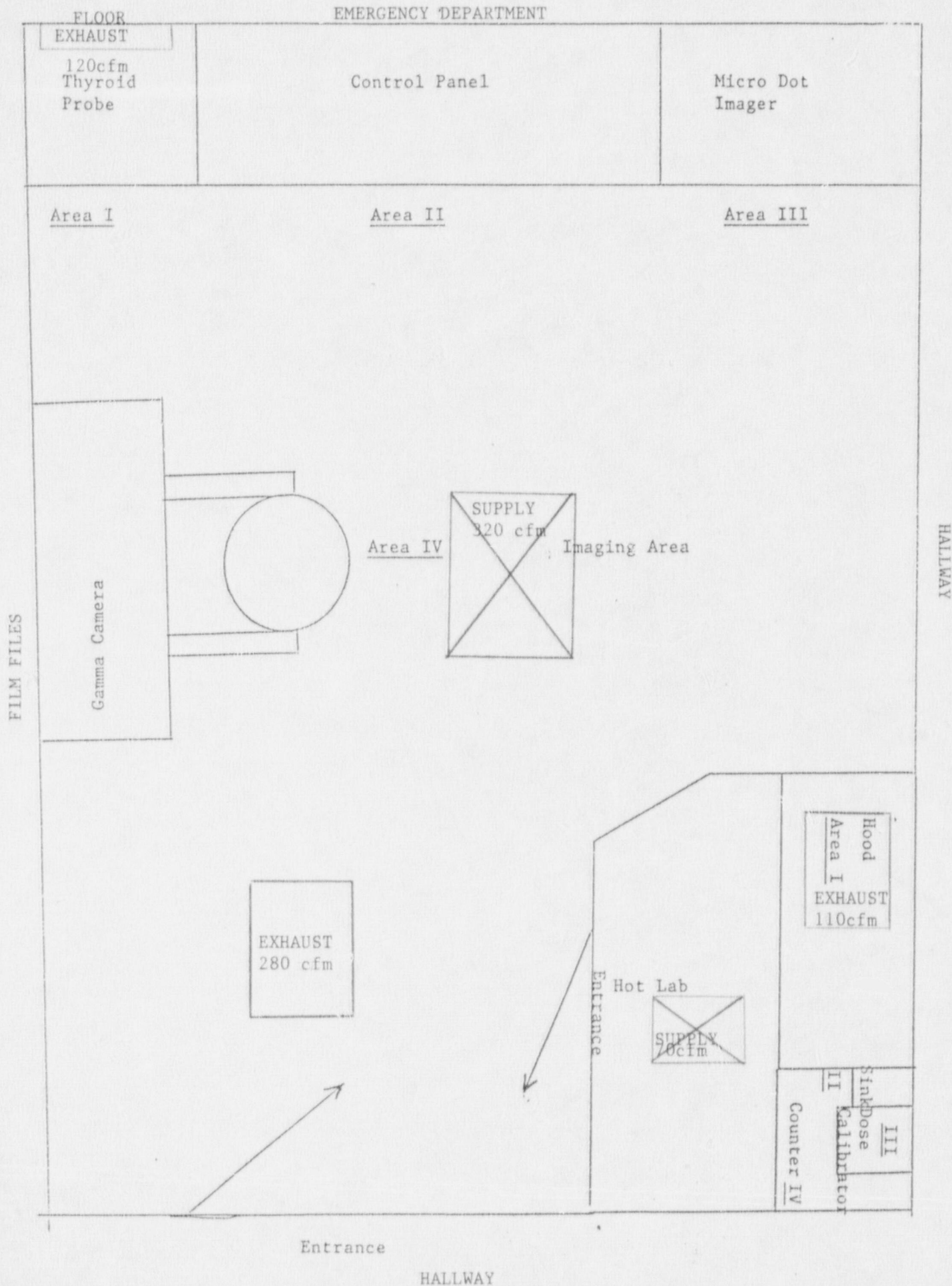
Attachments

Exhibit VI
DiagramNUCLEAR MEDICINE

Final Gm Survey done on 9/19/86 by James C. Boesch R.T.N.M. The GM Survey meter is a Ludlum Model 14C calibrated on 1/2/86. Bkgd. readings were also < .1mr/hr. (The GM Survey meter has been recalibrated on 1/87).

EXHIBIT VIIa
Diagram

Wipe Tests were performed on 9/19/86 by James C. Boesch, RTNM using Gamma Probe ADC Model 300 calibrated 2/86.



ATTACHMENT D

Information

CONVERSATION RECORD

TIME *Morning*

DATE *4/22/87*

TYPE

☐ VISIT

☐ CONFERENCE

☒ TELEPHONE

☐ INCOMING

☒ OUTGOING

ROUTING

NAME/SYMBOL

INT

Location of Visit/Conference:

NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU

Ann Cole

ORGANIZATION (Office, dept., bureau, etc.)

St Vincent Carol Hosp

TELEPHONE NO.

*317
593-7142*

SUBJECT

Co. No. 82559

SUMMARY

Called Ms. Cole to inform her that the calculations for the unrestricted & restricted areas for xem-133 were not included. I also inform her that she had two options to either submit the calculations or I could do them since all the information was there to do the calculations. She agreed that I could perform the calculations in order to get the license issued in a timely manner.

ACTION REQUIRED

Amend License

NAME OF PERSON DOCUMENTING CONVERSATION

C. FRAZIER

SIGNATURE

C. Frazier

DATE

4/22/87

ACTION TAKEN

SIGNATURE

TITLE

DATE