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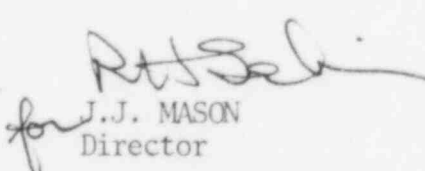
REGION VISE

In Reply Refer To: 570/115

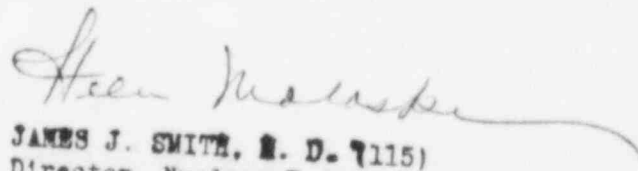
U.S. Nuclear Regulatory Commission
Materials Licensing Branch
Washington, D.C. 20555THRU: James J. Smith, M.D. (115)
Director, Nuclear Medicine Service
Veterans Administration Central Office
Department of Medicine and Surgery
Washington, D.C. 20420

SUBJ: Amendment #37 to NRC Biproduct Material License #04-01935-03.

1. The Nuclear Medicine clinic has been altered relative to the air supply/circulation/exhaust system. The system is independent of the hospital's return air.
2. Since we wish to resume Xe-133 ventilation studies, this amendment is submitted along with a floor plan of the air system and measured air flow data.
3. As previously calculated (see Amendment #29 RE: Letter of August 15, 1983), the necessary area ventilation is 170 cfm.
4. The average measured ventilation in the remodeled clinic is 178 cfm (see attached Vent Flow Rate). All exhaust is to the roof vent from exhaust hood.
5. The differential ventilation rate is -380 cfm when the exhaust hood is operated in the (normal) high speed mode with maximum opening size.
6. The Xenon trap exit will be monitored with a GM-tube survey meter. When calculations using the survey meter data indicate that the trap is releasing Xenon-133 to the extent of 100 mCi. per day into the clinic volume of 12800 cubic feet which would result in an end-of-the-day Xenon concentration of almost 3×10^{-7} mCi. per ml, assuming no Xenon loss, then the trap will be replaced.


for J.J. MASON
Director

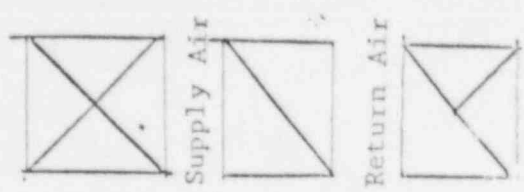
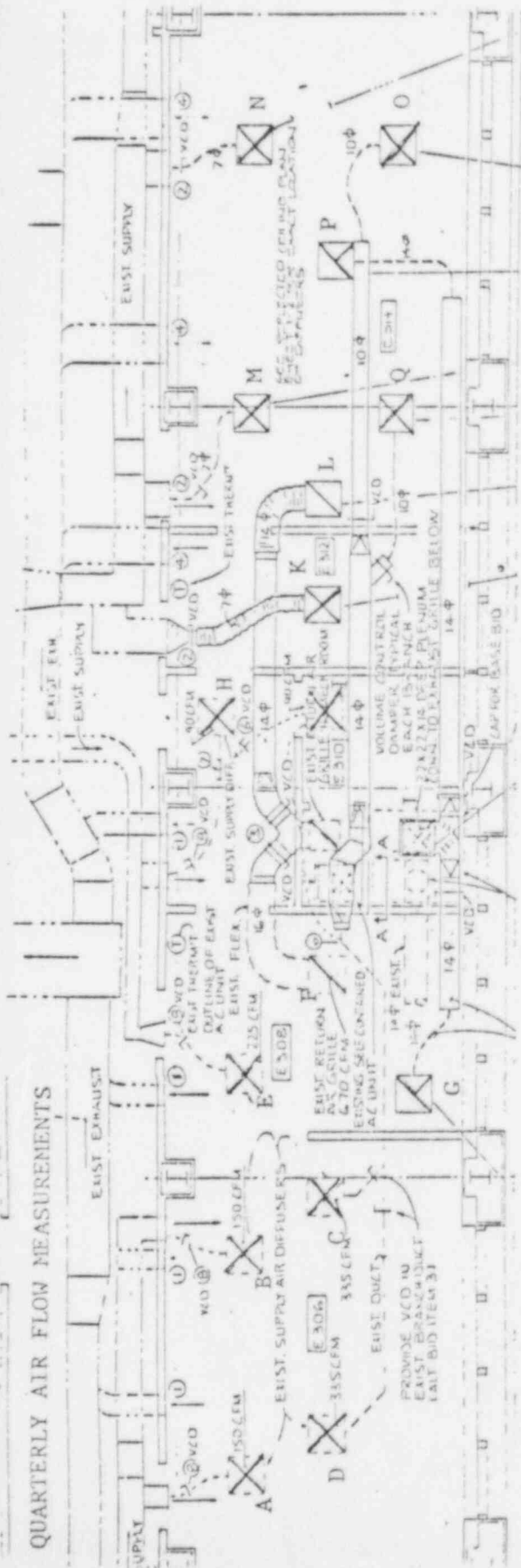
Enclosures (2)


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REG 5 LIC30
04-01935-03 PDR

7/23/85

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QUARTERLY AIR FLOW MEASUREMENTS



NUCLEAR MEDICINE FACILITY

date 7/9/85
Zek

Linear Flow Rates (fpm) A/C

- A. 100
- B. 100
- C. 100
- D. 100
- E. 100
- F. 50
- G. <25
- H. 700
- I. 100
- J. 0
- K. 150
- L. 75
- M. 125
- N. 125
- O. 450
- P. 25
- Q. 75

| | Hood | Low |
|---------|------|-----|
| OPENING | 172 | 116 |
| Top | 172 | 140 |
| 20" | 249 | 142 |
| 10" | 249 | 142 |

(9.76t²)

on 6/28/85

70233

7/9/85

VENT AIR FLOW RATE

VENT DESIGNATION ^a

FLOW RATE ^c

| | |
|--------------------------|------------------|
| A | |
| B | 80 |
| C | 100 |
| D | 210 |
| E | 230 |
| F | 220 |
| G | 670 ^b |
| H | 27 ^d |
| I | 90 |
| J | 90 ^b |
| K | 0 ^d |
| L | 105 ^d |
| M | 80 ^d |
| N | 100 |
| O | 90 |
| P | 270 ^d |
| Q | 7 ^d |
| Hood @ top on high speed | 260 |
| | 1605 |

Supply Air (ABCDEHKMN) - Hood Exhaust = 1225CFM - 1605 CFM = - 380 CFM

- a. Refer to attached map.
- b. Data from Engineering Service.
- c. Data from American Air (unless otherwise noted).
- d. Calculated from linear flow rate.

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