


April 28, 1985

 Dr. William J. Adam
Nuclear Regulatory Commission
Region 3
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Reference Number: 030-12831
Amendment Number: 29

Applicant	<i>May 3, 1985</i>
Check No.	
Amount/Fee Category	
Type of Fee	<i>3C annual</i>
Date Check Rec'd	<i>Count of P. 10 Rq.</i>
Received By	<i>CP</i>

Dear Dr. Adam

This report represents our close-out radiation survey of the below facility:

Nuclear Pharmacy, Inc.
933 North Mayfair Road
Suite 307
Wauwatosa, Wisconsin 53226

This survey does not include the waste storage, which is located in the basement. A letter will follow requesting permission to close this area when all radioactive waste has been removed from the facility and a separate close out has been performed.

1. All equipment, office furniture and radioactive materials were transferred too:

Nuclear Pharmacy, Inc.
11829 West Ripley Avenue
Wauwatosa, Wisconsin 53226

2. The results of our G.M. and Contamination Smear, performed on April 28, 1985 by Deborah B. Behrendt, C.N.M.T. is enclosed. The G.M. and Contamination Surveys revealed no areas of activity above background levels.
3. G.M. Surveys were performed using a low level thin wall G.M. probe (Bicron model Surveyor 2000 serial number A697B with pancake probe PGM serial number A5500, calibration date February 20, 1985). Set on the most sensitive scale, every square foot of the facility was surveyed in a grid fashion, (sinks, doors and adjoining offices). No readings above background were found.

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REG3 LIC30
48-17466-01MD PDR

Count of Rec'd
FEE EXEMPT

RECEIVED
APR 30 1985
REGION III

CONTROL NO. 78806

4. All tile areas of the facility were smeared in a series with absorbent paper smears. One swab was used for each roll of tiles which were 12 inch squares. Each swipe was pushed with a yard stick along each roll of tile for the entire length of the room. The swab length was 3.0 cm and the minium length of room (14 ft=430 cm) this translate to a minimum surface area covered by each wipe 1290 square centimeter, this figure was rounded off to 1000 square centimeter per wipe to simplify calculation and to be conservitive.
5. Smears were transferred immediately to the new facility for counting in the multi-channel analyzer model 1056-A; crystal model 246. All count were counted for one minute with a wide spectrum, the counter efficiency in this position equals 55 %. All results and calucations are attached. The primary isotopes used in this facility were technetium, iodine and other gamma emitting radiopharmaceuticals. No alpha emittes or weak beta emitters were used.
6. The survey data showed the results to be within acceptable surface contamination levels for removeable contamination as defined in Table 1 of the NRC Draft: "Guidlelines for Decontamination of the Facility and Equipment Prior to Release for Unrestricted Use." The highest reading obtained was 5.636 dpm/100 square centimeters, assuming the worst case that it was I-131 contamination the reading displayed is condidered well below the acceptable removealbe contamination limit for that radionuclided of 200 dpm/100 square centimeters.
7. We believe that we have throughly evaluated this facility as being acceptable to release for unrestricted use. Should you require additional information, please feel free to contact me. We request release of Suite 307 , excluding the shielded locked waste area located the in the basement of the facillity.

Sincerely

NUCLEAR PHARMACY, INC.

Robert B. Behrendt for

Robert Mc Clintock

V.P. Quality Assurance & Regulatory Affairs

cc: central
reading
license file
Dessel
Behrendt
WI-1

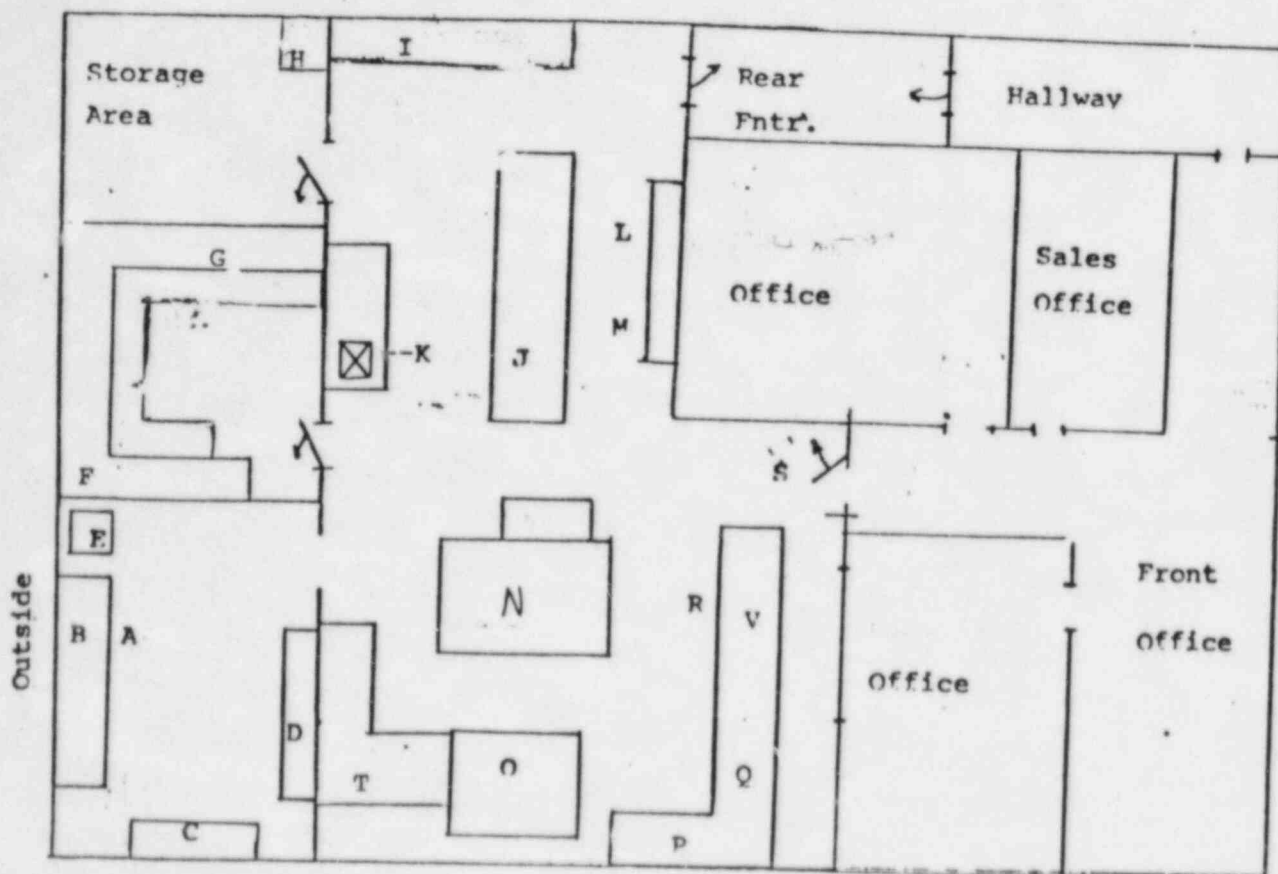
CONTROL NO. 7 8 8 0 6

WIPE TEST RESULTS & G.M. SURVEYS

								GM Surveys	
Area		Gross cpm - Bkg cpm = Net cpm			Analyzer Eff.	= Net dpm/ = 1,000 sq cm	Net dpm/ 100 sq cm	mr/hr	bkg
1.	Restricted Common Wipe	580	520	60	.55	.109	1.09	0.03	0.03
2.	" " Floor	560	520	40	.55	72.7	0.727	0.03	0.03
3.	" " "	650	520	130	.55	236	2.36	0.03	0.03
4.	" " "	670	520	150	.55	272	2.73	0.03	0.03
5.	" " "	540	520	20	.55	36.36	0.36	0.03	0.03
6.	" " "	780	520	260	.55	432.7	4.73	0.03	0.03
7.	" " "	690	520	170	.55	309	3.09	0.03	0.03
8.	" " "	720	520	200	.55	363	3.63	0.03	0.03
9.	" " "	460	520	0	.55	0	0	0.03	0.03
10.	" " "	610	520	90	.55	163.6	1.636	0.03	0.03
11.	" " "	660	520	140	.55	254	2.54	0.03	0.03
12.	" " "	580	520	60	.55	109	1.09	0.03	0.03
13.	" " "	550	520	30	.55	54.5	0.545	0.03	0.03
14.	" " "	490	520	0	.55	0	0	0.03	0.03
15.	" " "	590	520	70	.55	127.3	1.27	0.03	0.03
16.	" " "	640	520	120	.55	218.2	2.18	0.03	0.03
17.	" " "	750	520	230	.55	418	4.18	0.03	0.03
18.	" " "	600	520	80	.55	145.5	1.45	0.03	0.03
19.	" " "	580	520	60	.55	109	1.09	0.03	0.03
20.	" " "	730	520	210	.55	381.8	3.818	0.03	0.03
21.	" " "	680	520	160	.55	290.9	2.91	0.03	0.03
22.	" " "	690	520	170	.55	309.1	3.091	0.03	0.03
23.	" " "	600	520	80	.55	145.5	1.455	0.03	0.03
24.	" " "	710	520	190	.55	345	3.45	0.03	0.03
25.	Sink Handle-Cold	610	520	90	.55	163.6	1.636	0.03	0.03
26.	Sink Handle-Hot	600	520	80	.55	145.45	1.4545	0.03	0.03
27.	Right Side-Sink	770	520	250	.55	454.55	4.545	0.03	0.03
28.	Left Side-Sink	590	520	70	.55	127.27	1.27	0.03	0.03
29.	Paper Towel Holder	660	520	140	.55	259.5	2.595	0.03	0.03
30.	Sink Counter Top	730	520	210	.55	318.8	3.188	0.03	0.03

31.	Common Wipe - Floor	600	520	80	.55	145.45	1.4545	0.03	0.03
32.	"	640	520	120	.55	218.18	2.1818	0.03	0.03
33.	"	730	520	210	.55	318.8	3.1818	0.03	0.03
34.	"	740	520	220	.55	400	4.0	0.03	0.03
35.	"	460	520	0	.55	0	0	0.03	0.03
36.	"	620	520	100	.55	181.8	1.818	0.03	0.03
37.	"	700	520	180	.55	327.3	3.27	0.03	0.03
38.	"	650	520	130	.55	236.36	2.36	0.03	0.03
39.	"	610	520	90	.55	163.6	1.63	0.03	0.03
40.	"	580	520	60	.55	109.1	1.09	0.03	0.03
41.	"	830	520	310	.55	563.6	5.636	0.03	0.03
42.	"	480	520	0	.55	0	0	0.03	0.03
43.	Door Knob-Outside	680	520	160	.55	290	2.91	0.03	0.03
44.	Door Knob-Inside	560	520	40	.55	72.7	0.727	0.03	0.03
45.	Light Switch	660	520	140	.55	254.5	2.545	0.03	0.03
46.	Common Wipe - Floor	330	520	0	.55	0	0	0.03	0.03
47.	"	780	520	260	.55	472.7	4.727	0.03	0.03
48.	"	670	520	150	.55	272.7	2.727	0.03	0.03
49.	"	500	520	0	.55	0	0	0.03	0.03
50.	"	680	520	160	.55	290	2.90	0.03	0.03
51.	"	700	520	180	.55	327.3	3.273	0.03	0.03
52.	"	580	520	60	.55	109.1	1.091	0.03	0.03
53.	"	640	520	120	.55	218.2	2.182	0.03	0.03
54.	"	600	520	80	.55	145.45	1.4545	0.03	0.03
55.	"	640	520	120	.55	218.18	2.1818	0.03	0.03
56.	"	600	520	80	.55	145.45	1.4545	0.03	0.03
57.	Door Knob-Outside	660	520	140	.55	254.54	2.5454	0.03	0.03
58.	Door Knob-Inside	810	520	290	.55	527	5.27	0.03	0.03
59.	Light Switch	660	520	140	.55	254.5	2.54	0.03	0.03
60.	Common Wipe - Floor	680	520	160	.55	290.9	2.91	0.03	0.03
61.	"	600	520	80	.55	145.45	1.4545	0.03	0.03
62.	"	620	520	100	.55	181.8	1.818	0.03	0.03
63.	"	810	520	290	.55	527	5.27	0.03	0.03
64.	"	580	520	60	.55	109.1	1.091	0.03	0.03
65.	"	520	520	0	.55	0	0	0.03	0.03
66.	"	630	520	110	.55	200	2.0	0.03	0.03

67.	Common Wipe - Floor	620	520	100	.55	181.8	1.818	0.03	0.03
68.	"	640	520	120	.55	218.18	2.1818	0.03	0.03
69.	"	580	520	60	.55	109.1	1.091	0.03	0.03
70.	Generator Area-Floor	550	520	30	.55	54.54	0.5454	0.03	0.03
71.	"	670	520	150	.55	272.72	2.7272	0.03	0.03
72.	"	590	520	70	.55	127.3	1.273	0.03	0.03
73.	"	540	520	20	.55	36.36	0.3636	0.03	0.03
74.	"	610	520	90	.55	163.6	1.636	0.03	0.03
75.	"	660	520	140	.55	254.5	2.545	0.03	0.03
76.	Waste Bin -- Floor	1680	520	1160	.55	2109	21.09	0.8	0.04
77.	"	700	520	180	.55	327	3.27	0.03	0.03
78.	"	640	520	120	.55	218	2.18	0.03	0.03
79.	"	730	520	210	.55	381.8	3.818	0.03	0.03
80.	"	490	520	0	.55	0	0	0.03	0.03
81.	"	660	520	140	.55	254.5	2.545	0.03	0.03
82.	Window Sill Abv. 76-81	520	520	0	.55	0	0	0.03	0.03
83.	Door Knob-Outside	650	520	130	.55	236	2.36	0.03	0.03
84.	Door Knob-Inside	530	520	10	.55	18.18	0.1818	0.03	0.03
85.	Light Switch	480	520	0	.55	0	0	0.03	0.03
86.	Re-wipe of #76	430	520	0	.55	0	0	0.03	0.03
87.	Front Office Entrance	640	520	120	.55	218	2.1818	0.03	0.03
88.	Door Knob-Inside	690	520	170	.55	309.1	3.09	0.03	0.03
89.	Door Knob-Outside	460	520	0	.55	0	0	0.03	0.03
90.	Light Switch	650	520	130	.55	236.36	2.3636	0.03	0.03
91.	Sales Office	440	520	0	.55	0	0	0.03	0.03
92.	Door Knob-Inside	330	520	0	.55	0	0	0.03	0.03
93.	Door Knob-Outside	580	520	60	.55	109.01	1.0901	0.03	0.03
94.	Light Switch	720	520	200	.55	363.63	3.636	0.03	0.03
95.	Reception Area	590	520	70	.55	127.27	1.2727	0.03	0.03
96.	Door Knob-Inside	640	520	120	.55	218.18	2.1818	0.03	0.03
97.	Door Knob-Outside	620	520	100	.55	181.818	1.81818	0.03	0.03
98.	Light Switch	680	520	160	.55	290.9	2.909	0.03	0.03
99.	Manager's Office	710	520	190	.55	345.45	3.4545	0.03	0.03
100.	Door Knob-Inside	770	520	250	.55	454.5	4.545	0.03	0.03
101.	Door Knob-Outside	610	520	290	.55	163.6	1.636	0.03	0.03
102.	Light Switch	640	520	120	.55	218.18	2.1818	0.03	0.03



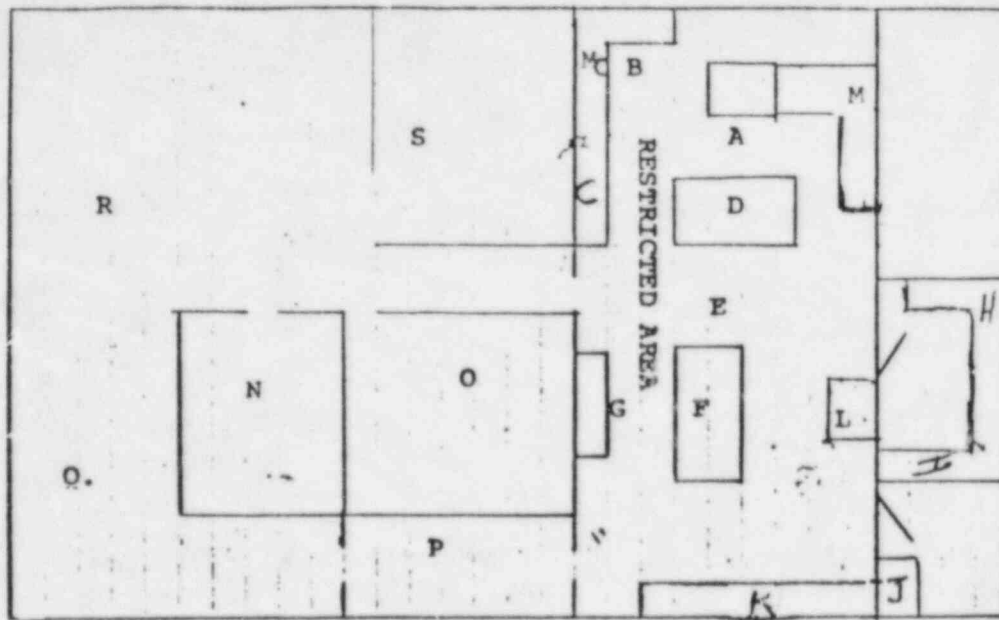
DAILY SWIPE TEST PROCEDURE

Wipe tests will be performed daily in order to detect any surface contamination. The wipes will be read on the multi-channel analyzer located in the quality control room. If the contamination exceeds 1100 dpm per 100 cm² (93 count/10 sec), the area will be cleaned or identified using dated self adhesive yellow tags. If the contamination level exceeds 2200 dpm per 100 cm², (186 count/10 sec), the area will be cleaned, covered or else posted and restricted.

S=Shielded P=Posted C=Cleaned R= Restricted From Use

Location	NET CPM	COMMENTS	
A. Generator Room Floor			Instrument: _____
B. Generator Shields			Model: _____
C. Waste Lids			Initial: _____
D. Fume Hood			Verified: _____
E. Refrigerator			Unit Dose Syringe Pigs
F. QC Area			Action Level: .1 mr/hr
G. Lab Equipment			Instrument: _____
H. Incoming Survey			Model: _____
I. Back Wall Set Up			Serial #: _____
J. Next Day Set Up			Initials: _____
K. Sink			Verification: _____
L. Set-Up Area			
M. Calibration Table			
N. Isotope Holding Bin			
O. Primary Hood			
P. Secondary Drawing Station			
Q. Second Wrapping Area			
R. Armo Box Storage			
S. Restricted Area Door			
T. First Wrapping Area			
V. Outgoing Survey			

DATE: _____



ACTION LEVELS

Non-Restricted:

2.0 mR/hR

Restricted:

5.0 mR/hR

LOCATION

mR/hR

Comments

A. Primary Drawing StationB. 2nd Drawing StationC. Out-going SurveyD. Kit HoldingE. RecordsF. Set-up AreaG. Calibration DeskH. Q. C. AreaI. Equipment AreaJ. Incoming Package SurveyK. Back WallL. SinkM. Wrap AreasN. Sales OfficeO. Staff OfficeP. Back HallQ. Front HallR. ReceptionS. Manager's Office

INSTRUMENT: _____

SURVEYOR: _____

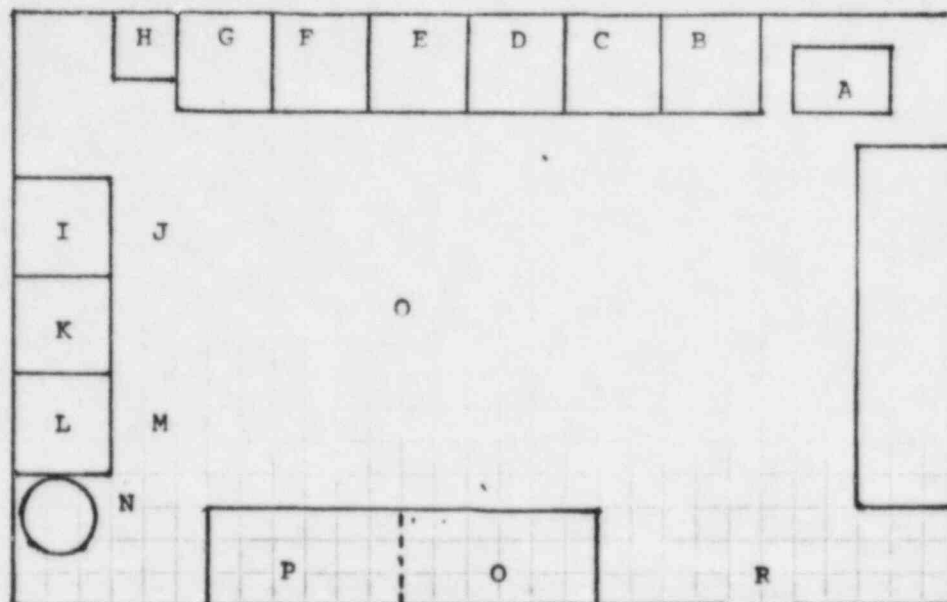
MAKE: _____

VERIFICATION: _____

MODEL: _____

SERIAL#: _____

DATE: _____



GENERATOR ROOM

ACTION LEVEL: NON-RESTRICTED 2.0 mR/hR RESTRICTED: 5.0 mR/hR

LOCATION	mR/hR	Comments
A. Refrigerator		
B. Generator		
C. Generator		
D. Generator		
E. Generator		
F. Generator		
G. Generator		
H. Generator		
I. Waste Storage		
J. Front of Waste Bin		
K. Old NEN		
L. Waste Storage		
M. Front of Waste Bin		
N. Glove Disposal		
O. Fume Hood (xenon side)		
P. Fume Hood (storage side)		
Q. Center of Room		
R. Room Entrance		

Instrument: _____

Surveyor Initials: _____

Make: _____

Verification: _____

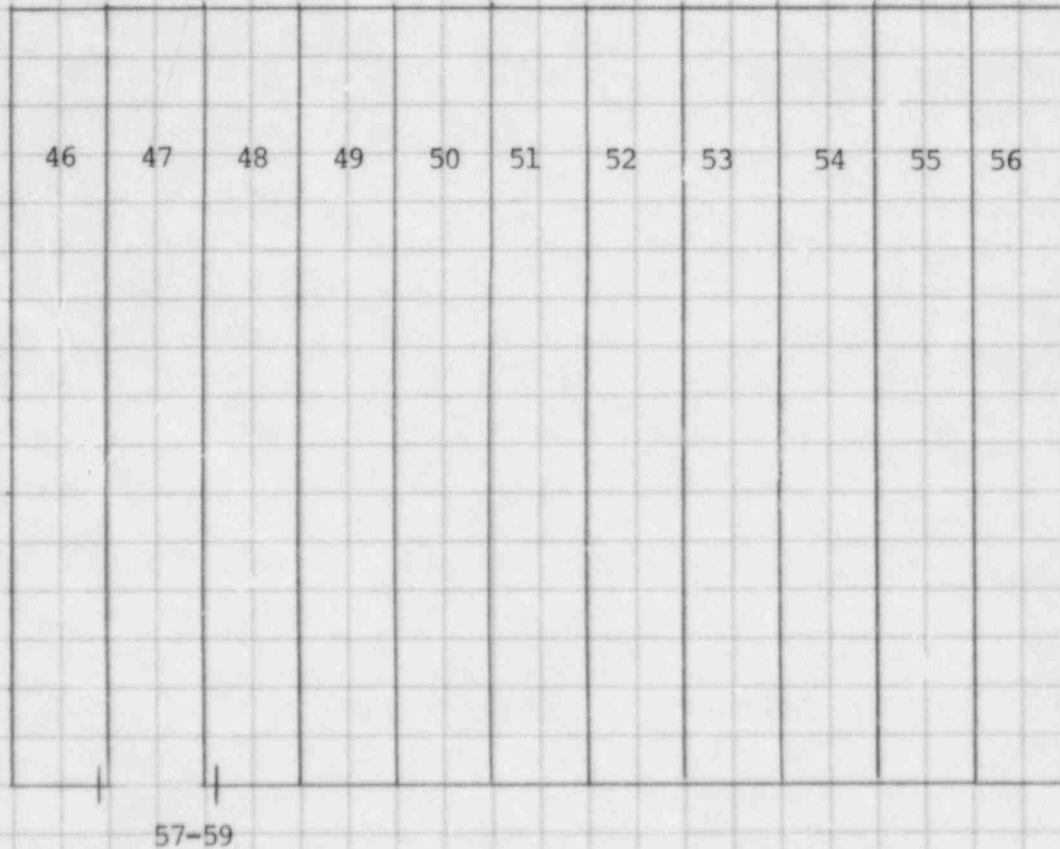
Model: _____

Serial #: _____

CONTROL NO. 7380C

O U T S I D E

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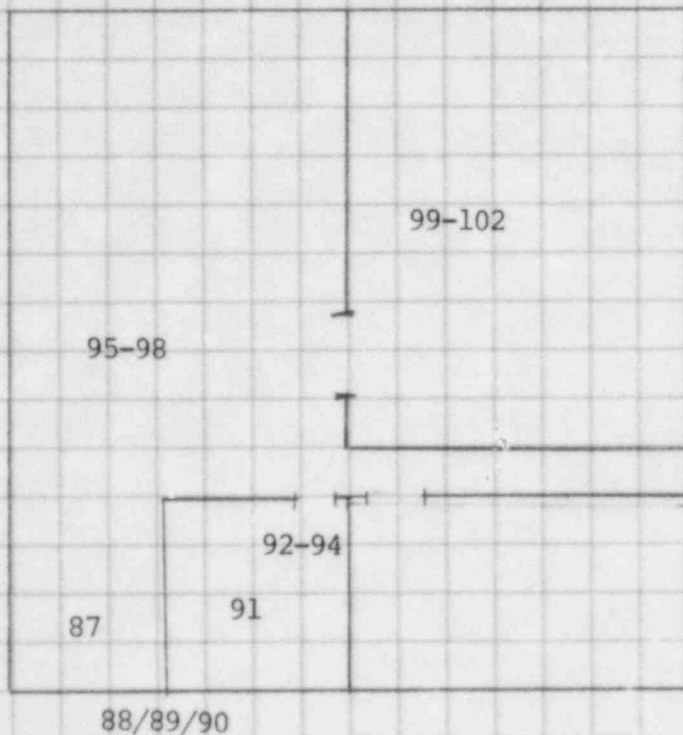
STORAGE AREA; DOT: INCOMING AND OUTGOING

46 thru 56 COMMON WIPE (FLOOR)

57. DOOR KNOB (OUTSIDE)

58. DOOR KNOB (INSIDE)

59. LIGHT SWITCH



NON- RESTRICTED AREA (CARPETED)

- 87. Front Office
- 88. Door Knob inside
- 89. Door Knob outside
- 90. Light Switch
- 91. Sales office
- 92. Door Knob Inside
- 93. Door Knob Outside
- 94. Lightswitch
- 95. Reception Area
- 96. Door Knob inside
- 97. Door Knob outside
- 98. Light Switch
- 99. Manager's Office
- 100; Door Knob inside
- 101. Door Knob outside
- 102. Lightswitch

OUTSIDE

82

81 80 79 78 77 76

GENERATOR ROOM

60. FLOOR COMMON WIPE 74. GENERATOR TABLE

61. " " " 75. " "

62. " " " 76. WASTE BIN

63. " " " 78. " "

64. " " " 79. " "

65. " " " 80. " "

66. " " " 81. " "

67. " " " 82. WINDOW SILL

68. " " " 83. ABOVE WASTE BIN
DOOR KNOB OUTSIDE

69. " " " 84. DOOR KNOB INSIDE

70. GENERATOR TABLE 85. LIGHT SWITCH

71. " " 86. RE-SUVEY OF # 76

72. " "

73. " "

74 75

72 73

70 71

O
U
T
S
I
D
E

QUALITY CONTROL ROOM

60 61 62 63 64 65 66 67 68 69

CONTROL NO. 10000

RESTRICTED AREA

1 thru 24 COMMON WIPE (FLOOR)

25. SINK HANDLE COLD

26. SINK HANDLE HOT

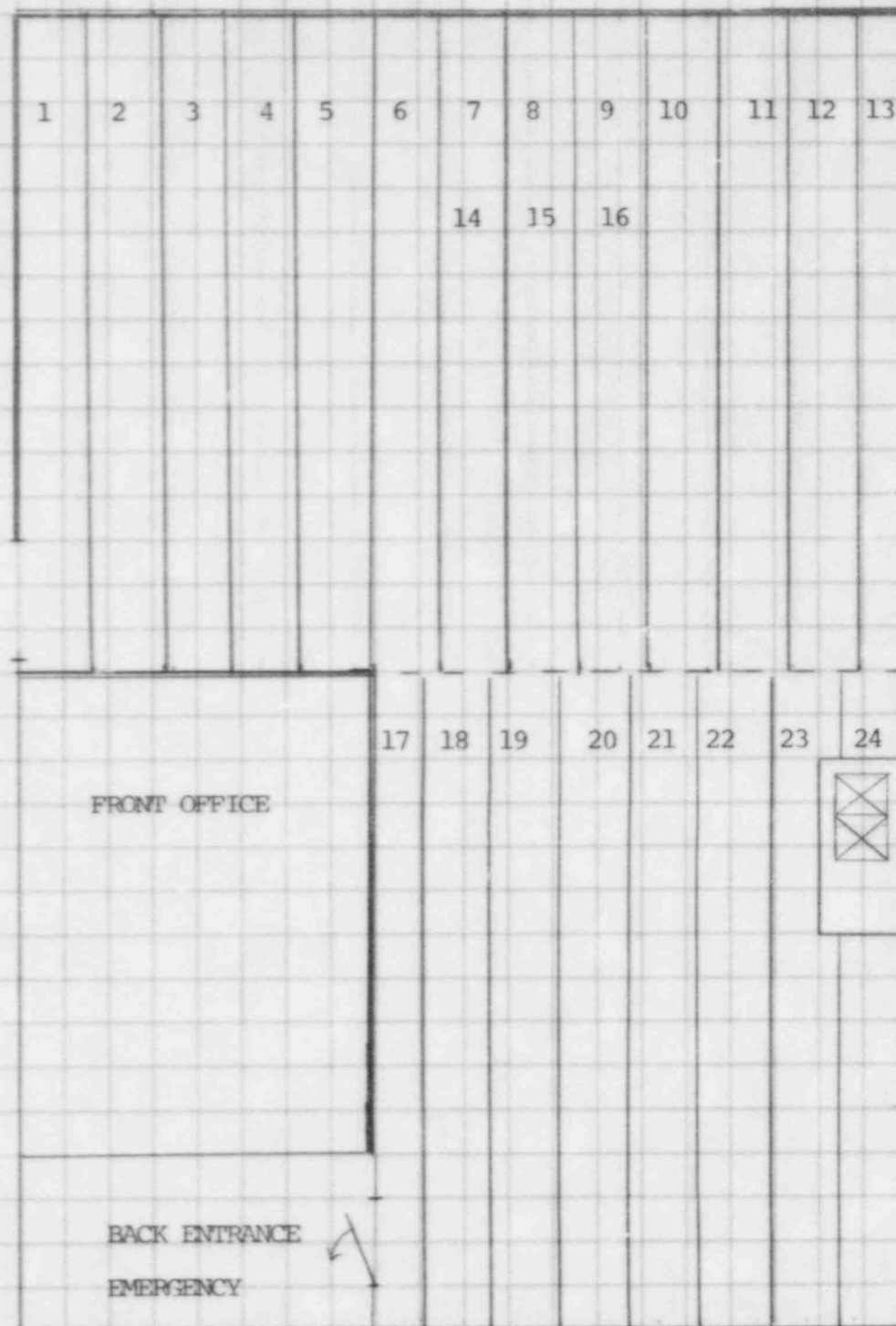
27. RIGHT HAND-SIDE OF SINK

28. LEFT HAND-SIDE OF SINK

29. PAPER TOWEL HOLDER (ABOVE SINK)

30. SINK (COUNTER TOP)

O U T S I D E



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25-30

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O U T S I D E

G E N E R A T O R	R O O M	31	32	33	34	35	36	37	38	39	40	41	42	S	
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R E S T R I C T E D A R E A

QUALITY CONTROL ROOM

31 thru 42 COMMON WIPE FLOOR

43. DOOR KNOB OUTSIDE

44. DOOR KNOB INSIDE

45. LIGHTSWITCH