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LOS ALAMOS SCIENTIFIC LABORATORY  
UNIVERSITY OF CALIFORNIA  
LOS ALAMOS, NEW MEXICO

**OFFICE MEMORANDUM**

CL 4

TO : Harry O. Whipple, Acting Division Leader

DATE: April 7, 1954

FROM : William S. Johnson

404564

SUBJECT: INCREASE IN ENVIRONMENTAL BACKGROUND OF APRIL 5, 1954

SYMBOL : H-5

As indicated to you previously by telephone, the air sample collected on the Health Research Laboratory roof from 0800-1620 4/5/54, showed a significant increase in activity over the routine samples collected practically continuously since 2/19/54. This sample is now being counted twice daily to determine the half-life and possible origin of this contamination. Up to this time it is obvious that the foreign activity has a half-life of several days so that more counts are needed to identify the source.

The magnitude of this increase appears now to be about ten fold on the basis of information attached. The ten stations, operated by H-1 to detect alpha contamination associated with D-Building demolition, collect air samples during the working hours of each day. On the morning of 4/6/54, the samples of the previous day from these stations were counted for beta activity. The sample collected at H R L during approximately the same period showed a concentration in good agreement with the ten. The eleven samples from H R L for the period of 3/29 to 4/5 are given for comparison. Samples following the peak indicate that a decrease to normal environmental background concentration occurred in less than 24 hours.

*W.S. Johnson*  
WILLIAM S. JOHNSON  
Section Leader  
H-5 Test Operations Section

WSJ:js

Encl: (2) Tables

cc: H. F. Schulte W/encl.

REPOSITORY LOS ALAMOS NAT LAB  
COLLECTION CL-4  
BOX No. 11331-1  
FOLDER Castle General

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AIRBORNE CONCENTRATION COMMUNITY STATIONS, APRIL 5, 1954

<u>Location</u>	<u>Sampling Time</u>	<u>Concentration - c/m/M<sup>3</sup></u>
1636 - 34th Street	0900-1605	59
194 Abbey Street	0845-1555	67
Contractor's Row (South Mesa)	0910-1620	64
O-Bldg. (TA-1)	0834-1549	41
Near Foundry (TA-1)	0832-1548	69
V-Shop (TA-1)	0836-1551	78
Warehouse 18 (east of TA-1)	0840-1555	55
Gamma Bldg. Roof	0825-1540	29
861 - 43rd Street	0905-1615	62
2135-B 35th Street	0800-1700	<u>104</u>
	Average	= 63 counts/min./M <sup>3</sup>

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AIRBORNE CONCENTRATION H R L ROOF - MARCH 29 - APRIL 7, 1954

<u>Sampling Time</u>	<u>Concentration - counts/minute/M<sup>3</sup></u>
0800-1630 3/29	4.6
1630 3/29 - 0800 3/30	Equipment Failed
0800-1615 3/30	3.4
1615 3/30 - 0800 3/31	3.2
0800-1620 3/31	5.3
1620 3/31 - 0800 4/1	6.0
0800-1600 4/1	3.9
1600 4/1 - 0800 4/2	4.6
0800-1630 4/2	8.4
1630 4/2 - 1025 4/3	Equipment Failed
1025-1710 4/3	7.0
1710 4/3 - 0935 4/4	Equipment Failed
0935-2230 4/4	6.1
2230 4/4 - 0800 4/5	9.7
Average concentration of above 11 samples = 5.7 c/m/M <sup>3</sup>	
0800-1620 4/5	49
1620-2040 4/5	36
2040 4/5 - 0800 4/6	13
0800-1620 4/6	4.7
1620 4/6 - 0800 4/7	8.1

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