

TA 48

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Document Number

Document Title H-1 General Monitoring Records

Author(s)

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Keyword(s)

H-1
5/24/1961

atmosphere
atmosphere
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Document Abstract

Publication Date

12/31/1966

Period Start

01/01/1950

Period Stop

12/31/1966

ESTIMATED

only [

1. Memo 3-10-61 from H-1 to W-7 says "exhaust ventilation system deactivated ; radon accumulated from storing uranium; exhaust system reactivated on 3-6. Category 2
 2. 3X50 Ci of tritium water were applied to a lake in Carlsbad, NM per a 5-9-61 internal H-1 memo. Category 1
 3. 5-24-61, H-1 memo describing Cs137 contamination of J-11 Radiochemistry Bldg. at TA-48 and one of the workers' homes due to contaminated shoes worn home. Category 1
 4. Tritium sniffers used during 3H dosing operations at "Lake McMillan" are described in a 9-1-61 memo from H-1 to USGS. Category 2
 5. 6-12-61 memo discusses pictures from the Lake McMillan experiment Category 2
 6. 4-19-61 internal H-1 memo describes current ops and the needs for additional monitors at Sigma, Ten Site, SM-43 (Pajarito, TA-46, Phermex, TA-49, W-7, H-7, Omega, SM-40, HRL). Category 1 and historical
 7. Memo 3-10-61 regarding on-site areas that are potential sources of contaminated salvage. Category 2
 8. Three memos (April and May, 1961) regarding overtolerance air tests being a result of clogged roughing filters. Category 2
 9. 8-29-61 memo regarding a high air count of short lived (presumed to be radon or thoron) released from Furnace #2 in Rm 104 of Press Bldg. exhaust outlet. Category 1
 10. Weekly memos re: TenSite exhaust air samples for 1961: Locations=Rm 128E; 128W; 134; 138; Labs A, B and C; E-10, 13, 14, 15; E-12. Category 1
 11. 5-22-61 memo on dose rates from the Hydro reactor at Kappa Site , Pajarito Canyon. Category 2
 12. 3-15-61 memo regarding potential for 3H releases from the HRL Bldg. Category 2
 13. 5-10-61 memo states that an exhaust duct system in Delta Bldg. at TA-1-16 is contaminated with beryllium. Category 2
 14. 2-28-61 memo. Category 2
- Also includes 1966 monitor's daily log for Ten Site (one binder) and Civil Defense information 1955-60 (fallout dispersal patterns)

Analysts's Comments on Document's Relevance to Dose Reconstruction

Project(s)

Analyst

Susan Flack

Review Date

07/14/1999



Technical Area(s)

Contact(s)

Roger

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Original Location of Document

LANL ARC

G-1-86, TR1117

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8-7
5/2/61

OFFICE MEMORANDUM

TO : Dean D. Meyer, Group Leader, H-1

DATE: May 24, 1961

Reviewed/Lab Counsel
Publicly Releasable

FROM : Carl Buckland, Leader, General Monitoring Section, H-1

SUBJECT: ADDENDUM TO CALVIN LONGMIRE'S MAY 22, 1961 REPORT ON "CESIUM¹³⁷ CONTAMINATION TO THE J-11 RADIOCHEMISTRY BUILDING, TA-48"

SYMBOL : H-1

I have studied Cal's report carefully and find it most comprehensive. There are, however, a few additional items of interest that should be in the record. We have compared our notes and offer this added information without repetition to the main report:

Contamination to [redacted] and [redacted]

The contamination on [redacted] and [redacted] was not detected until 7:30 the next morning (May 16) at the monitoring roadblock. Although [redacted] had only 1 mr/hr on his shoes, it was felt justifiable to survey his home since he had worn his shoes at home during the previous evening. No further activity was found in either his home or car.

On the other hand, [redacted]'s shoes and truck floor mat read 7 mr/hr gamma and over 20 mr/hr by open shield G-M instrument. It was very obvious that Mr. [redacted]'s house would have to be monitored. Mrs. [redacted] had just vacuumed the house minutes before the arrival of H-1. The cleaner bag read 20 mr/hr and Mrs. [redacted]'s shoes read .5 mr/hr. The three children and the [redacted] automobile were not contaminated. The living room rug had ten spots that read between 3 and 10 mr/hr. The stairs to the second floor read 1 mr/hr and another pair of Mr. [redacted]'s shoes were found that read 20 mr/hr at approximately 10 inches from the sole. Other spots on the first and second floors read between 1 and 3 mr/hr. Out of 28 homes monitored, only the [redacted] home had significant contamination, although, [redacted] did have one bathroom throw rug of 20 mr/hr.

H-1 commenced decontamination on the afternoon of the 16th and removed items like the rug that could not be readily cleaned. A member of the SP-2 Property Management Section was in attendance at all times and made records of the personal items that were taken. At this writing, I believe that all of the [redacted] belongings have been returned with the exception of the rug. After final decontamination, the [redacted] home had no detectable count on the first floor and only a maximum of .2 mr/hr in 2 upstairs bedrooms.

As a J-11 casual, [redacted] works out of the TA-48 stockroom. Unknowingly, he must have stepped on the tape and glass wool that was found on the basement stairs.

[redacted] made the coffee where sixty-four square feet of tile had to be removed. [redacted] also had visited several stockrooms during the afternoon

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of May 15. The following areas or vehicles visited by [REDACTED] were monitored by H-1:

Station 100
 Station 610
 Instrument Repair
 Government Vehicle Number 9880
 Government Vehicle Number 3353 (615 Patrol)
 SM-30 Stockroom
 SM-31 Stockroom
 Photo Stockroom (Administration Building)
 Metals Stockroom (SM-39)
 Photo Lab (Administration Building)
 Administration Building Motor Pool Office

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The only positive contamination detected was a spot of 3 mr/hr in the SM-30 Stockroom. It was decontaminated without difficulty.

Notifications

Director, J-Division Leader (Bradbury and Graves) - were notified of incident at 7:30 P.M. on May 15 by George Cowan.
 Zia janitors - Through Joe Dion, the following janitors were called in from SM-43 to assist in the first evening of decontamination:

Ramon Herrera	Z-901
Robert Martinez	Z-67658
Julian P. Salazar	Z-67701
Reyes Martinez	Z-68692

Safety Director - Roy Reider was notified at 8:00 P.M. by Dean Meyer.
 PUB - Bud Connolly notified by Meyer at 9:30 P.M.
 Security Patrol - called off for the night of May 15.
 Boiler people - called off by Rossiter.
 Fire Guard - cancelled by request to Security.

Most Active Areas

In this order; basement staircase, [REDACTED]'s lab, and coffee room were the most active areas. The tape and glass wool found on the staircase read 20 mr/hr at 20 inches. The floor of the coffee room read over 20 mr/hr at contact.

Re-checks

Four of the homes that were initially self-monitored were re-checked by H-1. This includes the homes of [REDACTED], [REDACTED] and [REDACTED]. No activity was found in any of these homes with the exception of an insignificant .5 mr/hr on one of [REDACTED] rugs. The spot was easily decontaminated.

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Limits on Contamination

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Health

The radioactive contamination limit for Cesium¹³⁷ is 1.0 mr/hr at contact with the surface of any object. There shall be no loose material as determined by swipe. Measurements will be made at contact with an open-window Geiger-Muller type counter.

Technical

For technical reasons at TA-48, the limit will be .2 mr/hr. All the remaining criterial are identical to that mentioned under "Health" above.

Gamma Ray Spectrometer and Microcuries

Swipes taken from the floor of the [redacted] lab and from the [redacted] home indicated a definite Cesium¹³⁷ by Gamma Ray Spectrometer measurements. Swipes from [redacted]'s tools presented a masked picture, however, there was evidence of fission products as well as Cesium¹³⁷.

Jerry Dummer has estimated from previous data of his that an open window G-M tube reading at contact with an object that reads one mr/hr is equal to .05 μ c. The total body burden for Cesium¹³⁷ is 33 μ c.

Manhours - Cost

Total manhours - 294
Total monitoring & decontamination costs - \$950.00
Counting only the overtime, the cost would have been \$452.00 instead of \$950.00

Miscellaneous

1. [redacted], on his own initiative, threw a pair of his own shoes and trousers in the contaminated trash.
2. About 16 square feet of tile were also removed from [redacted]'s laboratory area.
3. Houses were not usually surveyed for contamination when no activity was found on the person's shoes or automobile.
4. On May 17, additional spots up to 20 mr/hr were detected on the asphalt south of the east wing of TA-48. This has since been removed.
5. Body Counter - Arrangements are being made to have the following persons counted in the body counter:
[redacted]
[redacted]
[redacted]

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Note: The conditions under which measurements were made are given in detail at the end of Calvin Longmire's report.

Carl Buckland

Carl Buckland

CB/el

cc: A. E. Dyhre
George Cowan
Dwight Clayton
Calvin Longmire
Roy Reider
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