

NEW EVIDENCE

EXHIBIT I

PRELIMINARY SURVEY OF OLIN MATHIESON CHEMICAL CORPORATION,
PASADENA, TEXAS – SURVEY MADE BY ORNL NOVEMBER 18, 1977 –
DOCUMENTATION OF SURVEY DATED MARCH 1980

This is new evidence. Although this survey is alleged to have been made in 1977, it was not documented until 1980. I did not know about it until recently and therefore did not have access to it or these letters when I filed my claim in 2002. This is alleged to have been the entire work area for the uranium project for the period 1951 – 1953. Comments regarding this material are shown in other Exhibits.

Attachments:

- (1) Preliminary Survey of Olin Mathieson Chemical Corporation, Pasadena, Texas – Survey made by ORNL November 18, 1977 – Documentation of survey dated March 1980
- (2) Letter dated March 13, 1979 to Mr. M. S. Davenport, Olin Corporation from Mr. William E. Mott, DOE
- (3) Letter dated March 30, 1979 to Mr. H. E. Kaufman, Manager Governmental Affairs and Energy, Olin Chemicals Group from Mr. Lewis M. Cook, Chief, Environmental Surveillance Radiation Control Branch Division of Occupational Health, Texas Department of Health
- (4) Letter dated April 12, 1979 to Mr. William E. Mott, DOE from Mr. H. E. Kaufman, Olin Chemicals Group

PRELIMINARY SURVEY OF
OLIN MATHIESON CHEMICAL CORPORATION
Pasadena, Texas

Work performed
by the
Health and Safety Research Division
Oak Ridge National Laboratory
Oak Ridge, Tennessee 37830

March 1980

OAK RIDGE NATIONAL LABORATORY
operated by
UNION CARBIDE CORPORATION
for the
DEPARTMENT OF ENERGY
as part of the
Formerly Utilized Sites--
Remedial Action Program

OLIN MATHIESON CHEMICAL CORPORATION
Pasadena, Texas

At the request of the Department of Energy (DOE), a preliminary survey was performed at the Olin Mathieson Chemical Corporation plant in Pasadena, Texas (see Fig. 1), on November 18, 1977, to assess the radiological status of those facilities utilized under an Atomic Energy Commission raw materials contract for a period determined to be during the early 1950s. M. S. Davenport, Plant Manager, provided information as to the nature of work performed and the location of facilities utilized. T. Cook, who worked in Quality Assurance also provided information as to the history of material processed at this site.

From information obtained from review of files of contracts and in discussions held during the survey, the work conducted at the Pasadena site involved a bench-type pilot operation designed to extract U_3O_8 from phosphoric acid generated during the processing of phosphate rock. No information was available as to the exact amounts of U_3O_8 produced nor as to the radiological conditions of the facility at the culmination of the project at which time the pilot plant was dismantled (believed to have been in 1955).

Present Use of Facilities

The facility utilized in the project consisted of a single room approximately 12 x 14 ft (see Fig. 2). This room currently contains an L-shaped laboratory bench (with sink) adjacent to two walls and a chemical hood located on a third wall. This facility was part of an old process technology and analysis laboratory. The room is currently used for storing janitorial equipment. Plans are currently underway to demolish the building.

Results of Preliminary Survey

The preliminary survey was conducted by F. F. Haywood of the Oak Ridge National Laboratory and W. T. Thornton of the Department of Energy-Oak Ridge Operations Office. An exploratory radiation survey of the one room was made. This survey consisted of (1) direct alpha and beta-gamma measurements and (2) collection of residue samples from the areas of

the sink where elevated alpha and beta-gamma readings were noted (see Fig. 3). The maximum direct alpha reading was 3000 dpm/100 cm² on inside surfaces of the sink and presumed to be inside the drain opening of the sink. The inside of this opening was inaccessible beyond about 15 cm, which prohibited further assessment of the contamination level. The corresponding beta-gamma dose-rate reading was about 0.4 mrad/hr at the same location and was also the highest reading found in the facility.

Analytical results of a residue sample taken from the bench area around the sink and from an inside surface of the sink are presented in Table 1. No information was obtained as to the disposition of pilot plant equipment contained in this facility following culmination of the project.

In view of survey results, when the sink and accessible drain are removed from this facility, they should be handled as contaminated material with disposal at an approved burial site, prior to the release of the site for unrestricted use.

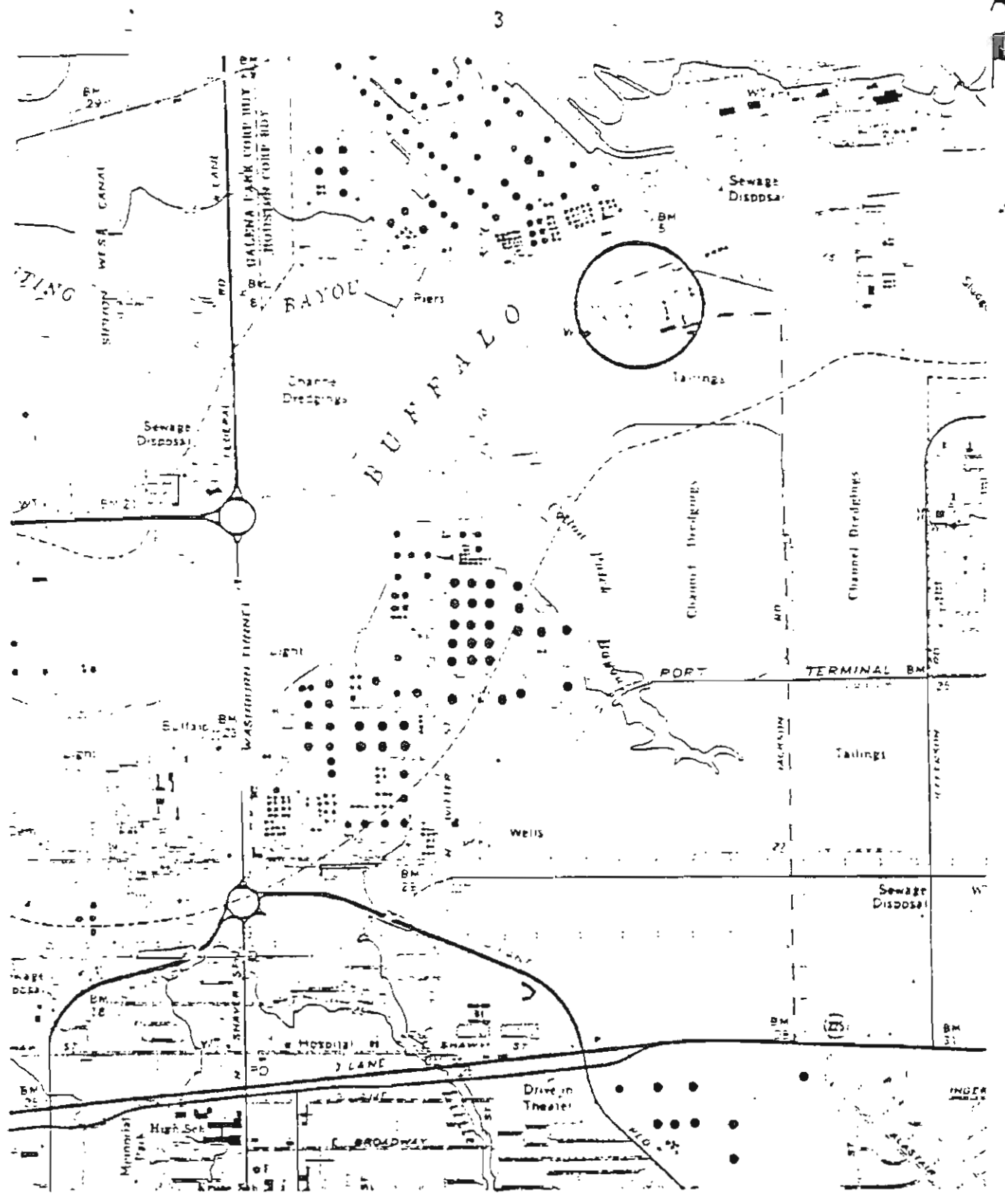


Fig. 1. Location of the Olin Mathieson Chemical Corporation in Pasadena, Texas.

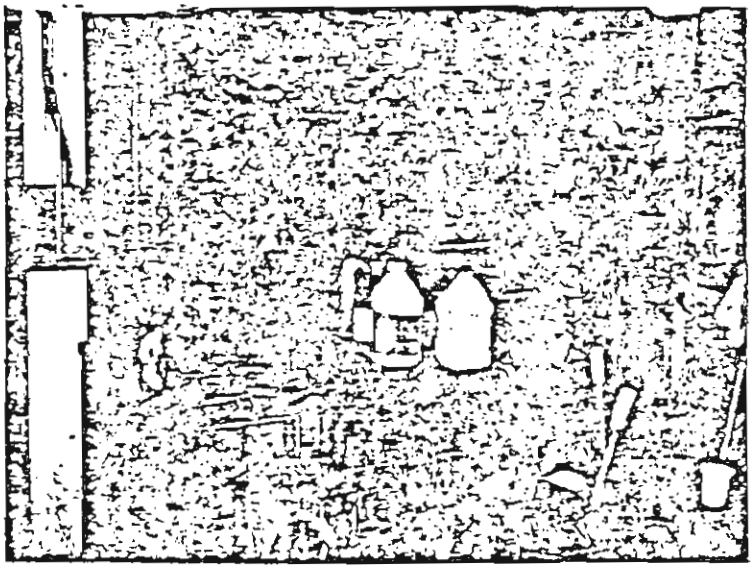
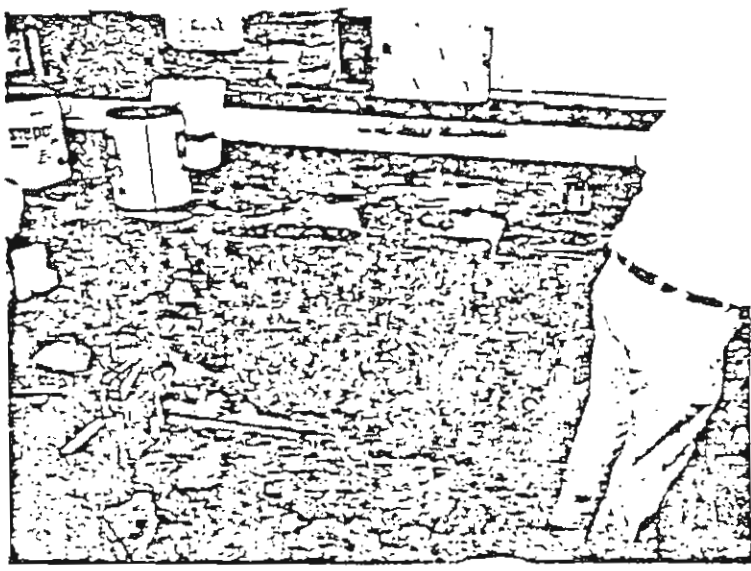


Fig. 2. Views of inside of room showing lab bench with sink and chemical hood.

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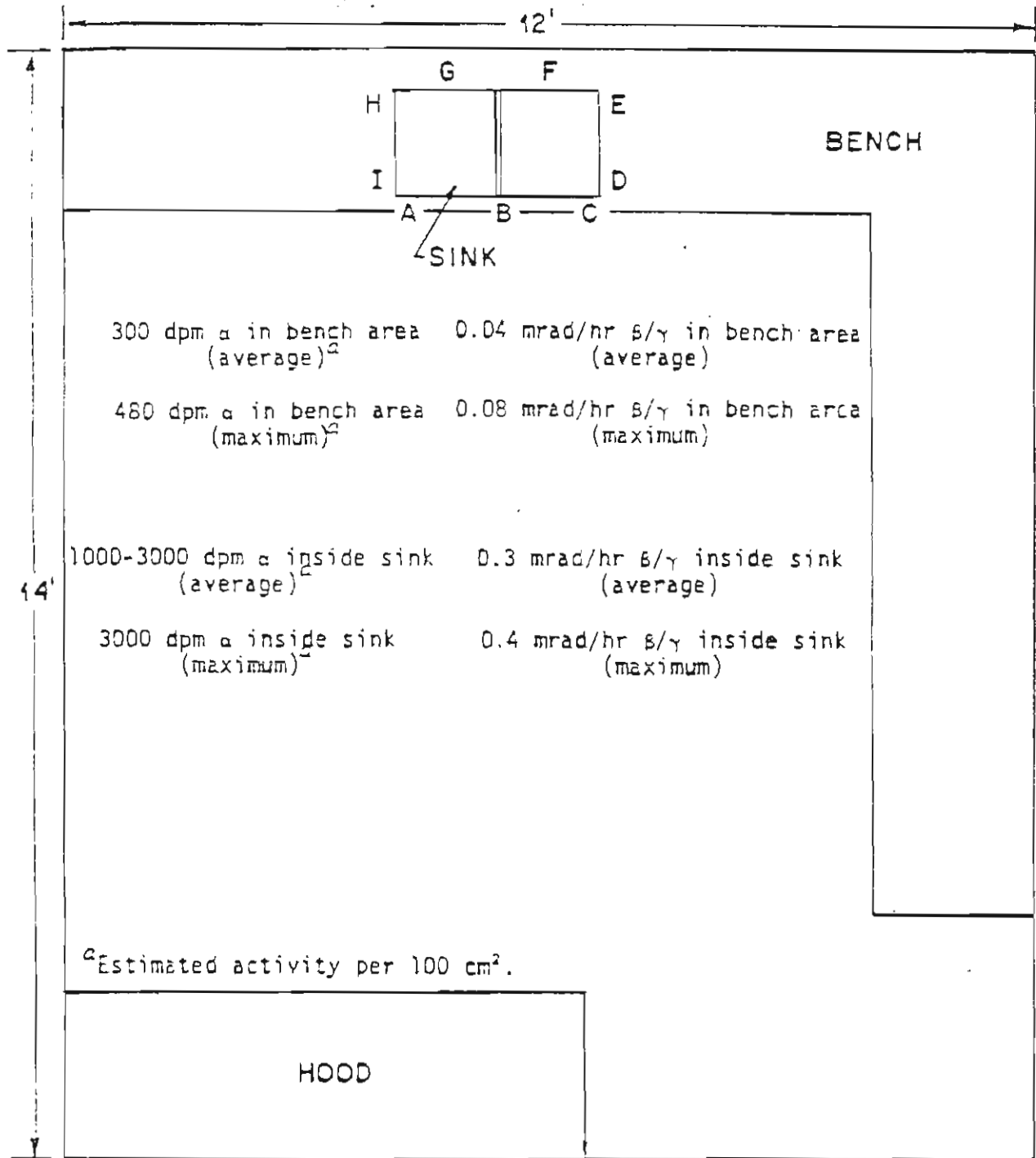


Fig. 3. Plan view of the former Olin Pilot Plant.

Table 1.

Radionuclides	Concentration for sample from bench area (pCi/g)	Concentration for sample from sink (pCi/g)
^{226}Ra	8.56	9.67
^{238}U	4.90	41.3
^{227}Ac	1.05	185

1.11
2.29.1

B0683C

MAR 18 1979

Mr. M. S. Davenport,
Plant Manager
Olin Corporation
P. O. Box 552
Pasadena, Texas 77501

Dear Mr. Davenport:

As you may know, the Department of Energy (DOE) is involved in a program to characterize the radiological condition of sites formerly used by the Manhattan Engineer District (MED) and/or Atomic Energy Commission (AEC) in the development of nuclear energy. As part of this program, DOE is preparing a series of brief summaries of the history of the MED/AEC related activities and conditions at the specific sites. The summaries are to document the activities from the initiation of a contract with MED/AEC to the termination of the final MED/AEC contract. The historical summaries also briefly describe the current condition of each site.

Enclosed is a copy of a preliminary summary describing work conducted at a portion of your facility for the AEC. DOE is still in the process of reviewing MED/AEC operations records in order to obtain all available information. The enclosed draft is based upon data collected to date and is submitted to you so that your review and comment can be received in a timely manner.

The second enclosure lists the specific information that should ideally be included in the attached site summaries. As you can see, a portion of the information has not yet been identified. I would appreciate receiving any supplemental information you can supply that might fill in some of the incomplete areas. I would also like to solicit any additional information regarding other facilities involved in the feed materials program of MED/AEC.

Sincerely,

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William E. Mott, Acting Director
Environmental Control Technology
Division

Enclosures:
As stated

bcc: R. E. Allen A. J. Whitman
W. E. Mott Aerospace ✓
R. W. Ramsey

ECT AD/N
REAllen
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ECT AD/N
RWRamsey
3/13/79

ECT AD/N
WEMott
3/13/79

OLIN MATHIESON CHEMICAL COMPANY
Pilot Plant
Pasadena, Texas

Site Function

Olin Mathieson Chemical Company had at least one contract for research and development on uranium recovery from phosphoric acid produced at Pasadena. A pilot plant was operated during the early 1950s.

Site Description

A single laboratory-type building was utilized under the AEC contract.

Owner History

The site is owned by Olin Mathieson Chemical Company.

Radiological History and Status

This site was visited by Oak Ridge Operations (OR) and Oak Ridge National Laboratory (ORNL) personnel on November 18, 1977. ORNL is preparing a letter report covering the findings of the site visit. Preliminary review of the field notes indicate the presence of some contamination; however, levels seem minor.

Category and Status

No survey is anticipated. ORNL is preparing a survey report.

References

1. ORNL Field Notes from site visit, November 18, 1977.
2. Letter, "Site Visit to Olin Mathieson," W.T. Thornton (OR) to Mr. Davenport (Olin Mathieson), October 1977.

CONTENTS OF SITE SUMMARIES

Each site summary should ideally answer the following questions under the respective categories..

1. Name of Site or Facility where site is located, Address of Current Owner
2. Site Functions
 - a. What was the site used for?
 - b. What were the dates of operation?
 - c. Who operated the site?
 - d. What contract number and who was the contractor during MED/AEC operations?
3. Physical Characteristics
 - a. What was physical layout of site during use?
 - b. What remains of old site?
 - c. What are the new physical characteristics of the site and what led to any changes?
 - d. What is the description of any off-site location affected?
4. Owner History
 - a. What was the ownership history from the initiation of operations to the present?
5. Radiological History and Status
 - a. What was the radiological history (including contamination and surveys performed) to the present?
 - b. Was any material or equipment used in the conduct of the AEC/MED contracts removed from the site? If so what was its disposition?
 - c. What is the current status?
 - d. What is the magnitude of any expected contamination off-site as well as on-site and what surveys were performed to date?
 - e. What actions were taken to decontaminate and/or certify the site for release to the public?
6. Category and Status
7. References (List of all available material supporting the data in the summary)



Texas Department of Health

Raymond T. Moore, M.D.
Commissioner
Philip W. Mallory, M.D.
Deputy Commissioner

1100 West 49th Street
Austin, Texas 78756
458-7111

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March 30, 1979

H. E. Kaufman, Manager
Governmental Affairs and
Energy
Olin Chemicals Group
P. O. Box 552
Pasadena, Texas 77501

Dear Mr. Kaufman:

Thank you for coming by my office and discussing your company's views about phosphate mill tailings (gypsum).

Because our survey of the plant on September 20, 1978 was only a partial survey, we did not write a report.

We, as we discussed last September, were concerned about possible residual contamination from the old Manhattan Engineering District tests conducted there many years ago.

Mr. C. R. Meyer of our regional office and I conducted a gamma ray radiation survey in the west end of the old administration building, the areas we were told the old Manhattan project work was carried out.

We found no contamination we could attribute to that operation. Radiation levels were generally less than 30 micro/Roentgen per hour (μ R/hr) in that building.

We also made a survey of the plant where we found radiation levels generally less than 30 μ R/hr, ranging from 10 to 600 μ R/hr of the pipes below a circular filter. Readings over the gypsum were around 30 - 35 μ R/hr.

In short, the radiation levels were not atypical of those found in other plants reported in the literature.

If you require further information or desire to discuss your plans further, please do not hesitate to call or come by.

Sincerely,

Lewis M. Cook, Chief
Environmental Surveillance
Radiation Control Branch
Division of Occupational Health
and Radiation Control



P.O. BOX 552 • PASADENA, TEXAS 77501 • (713) 472-3641

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Admin. Files

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2. 29.1

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April 12, 1979

Mr. William E. Mott
Acting Director
Environmental Control Technology Division
Department of Energy
Washington, D. C. 20545

Dear Mr. Mott:

The following information has been developed in line with the questionnaire enclosed with your letter of March 13th, 1979 on the AEC Project at Pasadena.

1. The site is located on the Houston Ship Channel near Pasadena Texas. The mailing address is Olin Corporation, P. O. Box 552, Pasadena, Texas 77501.
2. SITE FUNCTIONS
 - a.) The site was used to operate a small pilot plant which extracted uranium from wet process phosphoric acid produced for fertilizer manufacture.
 - b.) The facility was operated from mid 1951 through mid 1953.
 - c.) The pilot plant was operated by Mathieson Chemical Company. Project Manager was Dr. M. E. Miller. He reported administratively to the Plant Manager and functionally to Dr. Carl Prutton. (Deceased)
 - d.) The contract number is unknown. All records were destroyed after legal time limits expired.
3. PHYSICAL CHARACTERISTICS
 - a.) The pilot plant was located in a section of a one story building used as a process development facility.
 - b.) The equipment was removed after the project was completed. The building is still standing.

- c.) The area was used as a work area by Process Technology groups until June, 1975 when a new building was constructed.
- d.) There were no offsite locations involved. Phosphoric acid was piped from process to the pilot plant and treated acid returned to fertilizer processing. Less than 50 pounds of yellow cake was produced. This was recycled back into the acid.

4. OWNER HISTORY

- a.) Mathieson Chemical became Olin Mathieson Chemical Corporation in August of 1954. In September of 1969 it became the Olin Corporation.

5. RADIOLOGICAL HISTORY AND STATUS

- a.) No radioactivity monitoring was done during the test period. None was required by the then existing regulations.
- b.) The equipment which consisted of vessels, pumps, and lines was removed after completion of the project. Presumably it was scrapped. No records relating to this are available.
- c.) Unknown.
- d.) The contamination in the area is what would be expected in a phosphate producing plant. A survey made by Mr. Lewis M. Cook of the Texas Department of Health is enclosed.
- e.) No specific decontamination was under taken at any time.

6. CATAGORY AND STATUS

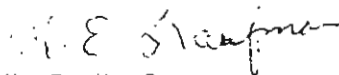
- a.) As indicated the building is basically idle. There are no plans to renovate or dismantle.

7. REFERENCES

- a.) No records were retained. The above information was developed from conversations with some of the people involved in the project.

Please let me know if you require further clarification.

Very truly yours,



H. E. Kaufman
Manager of Governmental Affairs

HEK/cms