

OFFICE MEMORANDUM

T. L. Shipman, M.D.,
Health Division Leader

DATE: March 24, 1964

Eric B. Fowler, Acting Group Leader, H-7

TO: NEW TREATMENT FACILITY AT DP WEST TO REPLACE BUILDING 35

FROM: H-7

I. History:

About 1945, seepage pits were constructed at DP site (TA-21) to serve the radioactive waste disposal requirements of that area.

In 1949, a 40' x 20' building was constructed of wood frame with corrugated metal covering. Advances in waste treatment technology have necessitated several additions and modifications since that date.

About 1952, a 50 gallon per minute chemical precipitation waste treatment plant, requiring a 30 foot extension of the building plus exterior waste storage facilities and a batch waste facility requiring a 10 foot extension of the building, were added to the original unit.

In 1956, a vacuum filter room was added with pertinent equipment.

In 1959, an americium waste treatment facility was constructed to meet the requirements of DP West for americium waste disposal.

In 1960, a chemical storage addition was planned and constructed to provide operating space.

By 1961, volumes of americium waste had increased to a monthly average of 1,311 gallons per month; this volume contained 380 grams (plutonium equivalent) of americium. The volume increase necessitated the addition of further space.

In 1963, a 50% caustic storage facility was designed. This will be completed this present year (1964). Also to be completed is a covered area for the temporary storage of 55-gallon drums containing americium-mortar mixtures.

Best Available Copy

Received by ER-RPF

JUL 29 1992

Hus



L. Shipman, M.D.

2

DATE: March 24, 1964

1. Present Status of Building 35, DP West:

As a result of the haphazard past growth of Building 35, efficient use of manpower and equipment is impaired. The original buildings are rapidly deteriorating. In 1963, treatment rates were kept abreast of flows with difficulty, allowing no down-time for routine maintenance and repair.

In the near future, H-7 will receive at Building 35 new wastes from the "in-construction" Rover facility at DP East. An increased waste flow of 7000 to 10,000 gallons per day is anticipated.

Expansion of the present site seems illogical due to the senescence of much of the present building, lack of building space, and the peculiar arrangement of present equipment necessitated by the past mode of growth. In view of the apparent permanency of the DP complex, it is proposed that a new permanent waste treatment facility be constructed in an area near the present facility.

1. Justification:

Planned construction of new facilities at DP East will require treatment of radioactive waste estimated at 7000 gallons per day for seven days per week. The waste treatment plant for DP West is easily reached by sewer line from the proposed construction area. Delivery of the waste for treatment at DP West is the most logical solution to the disposal problem.

The continuous treatment portion of the DP West, Building 35, facility was constructed in 1952 using the most economical means available including adaptation of scavenged materials and equipment to a new function. Under constant maintenance and supervision, the operation has performed satisfactorily.

The plant was designed to treat wastes at a maximum rate of 50 gallons per minute, but the most efficient operation is obtained with a treatment rate of approximately 35 gallons per minute. There are nine hours of operation (8:00 A.M. to 5:00 P.M.) however, with time required for filter back-washing, sample collection, maintenance, and so forth, no more than seven hours of operation can be relied upon. The plant can be expected to treat a maximum load of 14,700 gallons per day. Records indicate the following: