REPOSITORY
COLLECTION
BOX No.
FOLDER

February 26, 1960

Dr. C. E. Falk, Directors Office

Dr. E. E. Stickley

MRR mbr

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MEDICAL RESEARCH REACTOR: February 1960

The structural changes have now been completed in operating and preparation rooms attached to the MRR. These modifications serve to separate this suite from the air-lock entry system, where both the traffic pattern and the air supply had been unsatisfactory. The rooms can now function entirely independently of the reactor building, allowing their more effective utilization. The principal changes were the installation of two self-contained air-lock passageways and revision of the air supply and its associated equipment.

Certain experimental work of a physical nature was continued during this construction period. That noted previously dealt with assessment of the best selection and placement of materials in the therapeutic neutron stream, for control and direction of the neutrons and other radiations. Further tests have now been run to evaluate flux and energy distribution of the delivered neutrons, as well as to attempt spectroscopy of the gamma-ray contamination. At this time the foil activation measurements are still not completed. Approximate calculations of the slow neutron flux and the gamma-ray field (with no tissue present) gave 2.0×10^{10} n/cm^{2}sec and 21 r/min, respectively at nominal one-megawatt power level. Back-scatter effects present in the actual exposure procedure will raise both these figures.

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cc: Dr. L.R. Farr