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TO : Files

DATE: February 5, 1959

FROM : ^{WEL} William E. Lotz, Medical Research Branch
Division of Biology and Medicine

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SUBJECT: VISIT TO DR. ARTHUR SCHULERT, LAMONT GEOLOGICAL OBSERVATORY,
ON JANUARY 21, 1959 - CONTRACT NO. AT(30-1)-2116*yellow copy*

SYMBOL: BMM:WEL

The principal purpose of my visit was to observe the radiochemical analyses, for Sr⁹⁰, of food and excreta samples supplied by Montefiore Hospital (Spencer - Contract No. AT(30-1)-1763) in a joint study by the two groups.

There has been some question in my mind as to the reliability of the radiochemical analyses for two reasons: 1) the apparently poor quality of the work that is being done on the Sunshine Project samples and 2) the extremely low level of Sr⁹⁰ activity that is being administered to the patients and accordingly the low level of activity present in the excreta. In the past, the dietary intake of Sr⁹⁰ during a 6-day period varied from 10-20 d/m, the urine values from 3-8 d/m, and the fecal samples from 7-24 d/m. To me this is looking for the proverbial "needle in the haystack."

I observed each step of the chemical procedure being carried out by Ed Lenhoff and Rita Slakter. It was my impression that these people are very conscientious and capable and are doing their utmost to ensure reliable data. This was partially based on the appearance of ashed samples, the conditions of the crucibles and evaporating dishes and furnace (i.e., the crucibles in which the samples are dry ashed were free of hard deposits which have a tendency to build up after several uses - the inside of the furnace was clean). In addition, the raw counting book showed that samples were being counted for a total of 1000 counts which often amounted to counting for an 8-12 hour period and background checks were being made between samples. Checks are also made on each sample by the addition of known amounts of Sr⁸⁵ and analyzing for this.

Future samples will be higher since the emphasis this year will be on balance studies of children and people who are on a normal level of calcium intake. Last year studies were mainly carried out with people on low calcium diets.

Dr. Schulert plans to have stable strontium analyses under way within the next three months.

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