Samples for detg. U in urine — Ames

[redacted] Laboratory

MUC-HG-15
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[redacted]

January 29, 1943. 702426

CLASSIFICATION CANCELLED
DATE JAN 11 1967
For the Atomic Energy Commission
RAYMOND A. CARPENTER
for the Chief, Declassification Branch

Dr. F. H. Spedding,
Department of Chemistry,
Iowa State College,
Ames, Iowa.

Dear Dr. Spedding:

We think we are now at the point where we can measure minute quantities of Uranium in urine, on the order of 5 micrograms or more. This is done by measurement of its Alpha ray activity.

It would be of interest at this time to collect urine samples over a period of 24 hours from two of your employees who have shown or show now reduction in their urine. In order to collect these samples free from any contamination it would seem that it is preferable to do it over a week end when the man is not working. This would prevent any contamination from clothing or air. I would suggest that the urine sample be collected from Saturday afternoon through Sunday afternoon being all of the urine excreted in a 24 hour period. One would have to impress upon the man that due care would have to be exercised to see that there was no contamination; that a bath had been taken before the collection over the 24 hour period had been started. To preserve the sample, one or two thymol crystals could be put in the urine bottle. If, then, we could receive these 24 hour samples, we could analyze them for the quantity of Uranium excreted in the 24 hours. I think this should be done before conditions in your plant reach the degree of cleanliness which is optimal.

Perhaps your technician could take charge of collecting these and mailing them to us by express. I would suggest that she do a reduction test on the sample before sending. It would be preferable to have the samples on two men engaged in the dirtiest part of the work.

Yours sincerely,

S. T. Cantril, M.D.

STC/w

Copy - H.L.Friedell

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FOLDER DEcl. - for AM BRUES

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5-6-43

No samples have as yet been received