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STANDARD FORM NO. 64

# Office Memorandum • UNITED STATES GOVERNMENT

TO : W. B. Harris, Chief, Industrial Hygiene Branch      DATE: September 12, 1950  
Health and Safety Division  
FROM : A. J. Breslin  
SUBJECT: URANIUM ROD DRAWING TEST AT WYCKOFF STEEL CO.

SYMBOL: HSH:AJB:mc

On September 6, the writer accompanied Mr. F. Stroke to the Wyckoff Steel Co. in Newark to witness the trial drawing of 1-1/2 inch diameter uranium rods.

Two rods, about four feet in length, were used in the test. They were just dipped in an 8% solution of hot sulfuric acid, rinsed in water, and coated in a hot  $\text{Ca}(\text{OH})_2$  bath.

In the first attempt at drawing, the rod jammed in the die and had to be removed by the use of a sludge hammer. For the second attempt, a larger diameter die was substituted but the drawing was accompanied by considerable noise and vibration. Unfortunately, no sample was collected during this operation since the Health and Safety representative, impulsively heeding the laws of self-preservation along with the other dignitaries, sought sanctuary behind a large bank of steel rods. It was concluded that the erratic behavior of the draw bench was due to an excessive drawing speed although the slowest speed available was used.

Although this trial did not produce the desired results, Mr. Stroke is of the opinion that drawing may still be practical. Further tests are contemplated. It will be necessary to locate a draw bench with a variable speed hydraulic grapple so that the drawing may be done at a very slow rate.

The tests were inconclusive from the standpoint of dust dispersion. It is safe to assume that the contamination produced by this form of rod finishing would be much less than from machining.

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