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June 5, 1951

H. F. Reichard, Production Division

VISIT TO BLOOMFIELD TOOL CORPORATION, BLOOMFIELD, NJ

SYMBOL: FO:HFRevj

RESEARCH & DEVELOPMENT (GEN.) + (Ch.)

On May 7, 1951 during the subject visit the writer and Mr. F. G. Stroke contacted Mr. MacWilliams of the Bloomfield Tool Corporation to determine whether this company would consider, and had facilities for, experimentally machining some uranium slugs from rolled rods and possibly doing semi-production scale work of the same type.

The short trip through the Bloomfield shop indicated that they had a number of turret lathes and also a grinder of the type suitable for doing work.

Mr. Stroke and the writer described the desired type of machined piece and the dimensional tolerances involved. Although the use was not mentioned a shape corresponding to the duPont type of slug with the conical end was described and the tolerances thereon given. Mr. MacWilliams said it was his opinion that for volume production of the described piece, multi-spindle automatic screw machines should be used for the roughing operation with two pass centerless grinding for finishing. He believed that a separate lathe should then be used for putting on the cone end if this could not be done with precision on the automatic screw machine or if concentricity of the cone with the piece could not be maintained.

Mr. MacWilliams then outlined some of the problems and feed stock characteristics required for use of a multi-spindle automatic screw machines. In his experience, rod lengths for proper operation of the multi-spindle machine had to be constant within 1/8". He also believed that the rods would have to have a chamfered end in order to be certain of proper feeding in the machine. He suggested that we would salvage the short leftover lengths on a single spindle or hand turret lathes. He also pointed out that it was important that we consider the rate of feed finger wear on the reel of the multiple spindle type automatic lathes.

After agreeing to try to do machining of the material for us Mr. MacWilliams suggested that he start by doing something up to 100 pieces on an experimental basis using several types of machines they have available to determine which type machine and which type machining method was best, including information on the operation of the machine, grinding speeds to be used, type of wheel, type of tool for lathes turning, the rake angle to do the best job and the type and rate of coolant flow required.

UNCLASSIFIED
By: P. A. Brown
Date: 5-9-84

F. M. Blmore *uld*
D. C. Moore

[REDACTED]

H. Schadel, Catalytic Constr. Co.		June 6 1951	
OFFICE →	Production		R. F.
NAME →	Reichard		
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