

Memorandum  
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UNIT 3  
DAYTON, OHIO

TO Dr. M. M. Haring

DATE 3/14/49 INITIALS JRW DATE March 14, 1949

SUBJECT Machine Shop Requirements - Scioto Laboratory

# 49-3-32(T)

Enclosed herewith is a copy of a memo from Mr. George Mahfouz covering the disapproval of the purchase of certain Machine Shop equipment for Scioto Laboratory.

Also enclosed is a copy of the justification for this equipment by Mr. Pittenger. This is submitted for your use in taking up this matter further with the Atomic Energy Commission.

J. R. Wiesler  
J. R. WIESLER

JRW/bl Dr. Haring - Copy 1  
Mr. Wiesler - Copy 2  
cc: Mr. G. Mahfouz - Copy 4  
Mr. C. H. Pittenger - Copy 3

MOUND DECLASSIFICATION REVIEW	
1ST REVIEW DATE: 9/16/97	DETERMINATION (CIRCLE NUMBER(S))
AUTHORITY: OAC BAC DAD	1. CLASSIFICATION RETAINED
NAME: H. ANDERSON	2. CLASSIFICATION CHANGED TO:
2ND REVIEW DATE: 1/19/98	3. CONTAINS NO DOE CLASSIFIED INFO
AUTHORITY: AD	4. COORDINATE WITH:
NAME: R. Ratay	5. CLASSIFICATION CANCELLED
	6. CLASSIFIED INFO BRACKETED
	7. OTHER (SECRET): WITH ENCLOSURES

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# 49-3-32(T)

DATE 3/14/49 INITIALS JW

Mr. E. C. McCarthy

March 7, 1949

Machine Shop Equipment M-101

The following is a copy of a Memo received from Mr. C. C. Svoboda on March 4, 1949:

MACHINE SHOP EQUIPMENT M-101

Several days ago, a figure was submitted for budget purpose to cover overall purchase requirements at SCIOTO LABORATORY.

It now develops that A.E.C. has disapproved the purchasing of the following equipment, with a statement on our record of purchase tabulation: "Not approved, believed to be in excess of minimum requirements for M-101. Signed: Noland Varley".

Requisition #433, Specification #267

Item #2, 2 only - Lathes, 10" x 20" MONARCH Toolmakers Model EE, complete with standard equipment  
Total value.....\$10,726.00

Requisition #488, Specification #298

Item #8, 1 only - Milling Machine, Kearney & Trecker, #2H Universal complete with accessories  
Total value.....\$ 9,235.40

If these pieces are not to be purchased, it would seem orderly for the Design Division to cancel these specifications.

CCS:MG

cc: A.J.Anderson  
Roy E. Howell  
Geo. Mahfouz  
Geo. Wehrle

CARL C. SVOBODA

/s/ G.Mahfouz  
George Mahfouz

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GM:it

cc: Mr. E. C. McCarthy  
Mr. J. Wiesler  
Mr. C. H. Pittenger

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copy 2  
B. P. [unclear]

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THIS IS COPY 2 OF 4A

DATE 3/14/49 INITIALS JW

March 14, 1949

MOUND LABORATORY MONSANTO  
Central File No. 49-3-32

**MACHINE TOOL REQUIREMENTS FOR UNIT #6**

The Bills of Material for Unit #6 lists several machine tools. These machines were selected on the basis of the machinery that would be required for production items alone at a Unit #5 production level. By production items we mean items currently made by the machine shop and which are consumed by the process at a more or less fixed rate.

At the outset, we divided the shop up into three parts: 1 - Shop (PR-219), 2 - Other Production (M-101) and 3 - Maintenance Shop. Early in the design of the PR Building it was our plan to combine Shops 1 and 2.

This would have been ideal from our point of view but in the final design it was decided to separate the two because an area that large did not fit well into the PR layout, since they had sufficient shop room in other buildings. The final design combines the Production Shop and the Maintenance Shop. Actually this is not two shops but we assume that the Production Shop will be able to absorb any maintenance machine work that is required.

The shop in PR 219 is for Urchin production only, everything else required for Y-work and other production is to be made in M-101. Some simplification in the layout might be possible except for the fact that traffic between the two shops will be eliminated for security reasons, as it is between the "N" Building and T-302 and T-21 at Unit #5.

What apparently is not generally understood is the fact that there is production other than Urchin parts required to keep the Y-group

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Excluded from automatic  
downgrading and  
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going and other mechanical production required to keep other groups operating. For every Urechin produced one U holder is required, two H holders, one pin hole, and periodically an H holder insert, an H strip camera and an H camera. At present level these operations require two men full time. This is practically the same as the labor requirement to produce Urechin Parts. In addition we are required to supply foil carriers and foils for Micro-Assay. The foil carrier is a complicated combination micro manipulator and transfer unit used between plating, logao-L, and quartz fibre micro balance, and although we have not had too much experience with them as yet, we assume that continual replacement will be necessary. This unit has become necessary with the installation of lower tolerance levels. Also we are required to supply Pt. cans to the Electrolysis group and copper slugs to the health group for urinalysis, take care of instrument maintenance such as micro balances, counter chambers, logacs, etc. All totaled the minimum requirement would be four precision machinists for N-101.

At the present time we have one lathe, a surplus Reid Prentice 16", and one screw machine, a surplus Warner Swasey No. 3 for N-101. These machines would not be sufficient for the work listed above although they fit into the requirements and are to be used for their share of the work.

Two Monarch EE Lathes, or some equivalent machine, are required. The same thing is true of a Kerney and Trecher No. 2 Milling Machine. We are at the present time using two Monarch EE Lathes at Unit #5.

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We have one Bridgeport Milling Machine for M-101 but the Bridgeport could neither deliver the quantity, size, nor type of work required on some operations. The Bridgeport table is too small, and we must have a mill with a gear driven index head to produce spirals for some operations. The Kerney and Treacher mentioned above is such a machine, and this machine or some equivalent is essential.

Without this equipment we would handicap operations. Stockpiling is a possibility, but there is a number of objections. In the first place, it is as easy and probably as economical to store the machinery and raw material as it is the finished parts. Second, it would probably be a year before we could produce enough of the bare essentials for Unit #5 and #6 combined here in the Maintenance shop before we could concentrate on a stock pile. Third, it would be impossible to farm out these parts for security reasons. Maintenance obviously could not be farmed out. Fourth, stockpiling would not permit the flexibility that we desire, since there is continual development going on and we like to take advantage of any changes for the better. In a stockpile the design is frozen. Fifth, there is a possibility of using different materials on some of these parts so that they could be used over and over, however, it has been found as economical to make disposable parts to be used only once as it is to clean up more permanent types after each operation.

In addition to the three machines mentioned above, there is also an order for a jig borer, which is required on the parts work and maintenance. Admittedly only a cheap machine would be required. The

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used machine that we have in the "M" Building could be satisfactory and I suggest that we transfer it to Unit #6 and get a new machine of high quality for Unit #5. It would be in order to charge the value of the present machine to #2 and the balance to Unit #5.

cc: File *J. R. Weisler - Copy 1*  
Dr. M. M. Haring - *Copy 2*  
Mr. G. Mahfouz - *Copy 4*  
Mr. C. H. Pittenger - *Copy 3*

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