MASTER

WANL-TME-158 ✓

REFERENCE

CD-879

From. Astronuclear Laboratory

Date. October 9, 1962

Subject: Transimssion of WANL-TME-158
to Aerojet, Re: Action Item
No. 316 from September 21, 1962
Technical Management Meeting

ASTRONUCLEAR LABORATORY

H. Faught

cc: H. McCreary
Dr. Esselman
W. Morris
R. Ramp
F. McLane
Library (2) ←

Please transmit the information in WANL-TME-158 to Mr. N. Irvine
of Aerojet per action item No. 316 from September 21, 1962 Technical Management
Meeting.

H. S. McCreary
Control Development

WRMorris/lel

Attachment

DISTRIBUTION OF THIS DOCUMENT UNLIMITED

MASTER

DISCLAIMER

This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency Thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof.

DISCLAIMER

Portions of this document may be illegible in electronic image products. Images are produced from the best available original document.

October 9, 1962

ESTIMATED POWER REQUIREMENTS OF THE REACTOR CONTROL SYSTEM

To fulfill the request of action item No. 316 resulting from the Technical Management Meeting, September 21, 1962, we are supplying the following tabulation of estimated power requirements for the NERVA reactor control system. These are preliminary and are subject to change as system synthesis and design progresses.

1. Nuclear Instrumentation	800 watts
2. Control Circuitry	280 watts
3. Actuators:	
A - Pneumatic (12 actuators)	540 watts
B - Stepping Motors (12 actuators)	1100 watts
C - Magnetic Clutch (12 actuators)	3360 watts
D - Shim and Regulating Combinations	
(a) 2 AC servo motors	
10 stepping motors	1900 watts
(b) 2 magnetic clutch units	
10 stepping motors	1560 watts
Minimum total power required - - -	1620 watts
Maximum total power required - - -	4440 watts

W. R. Morris
Control System Design
Control Development

/lel

NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Energy Research and Development Administration, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

DISTRIBUTION OF THIS DOCUMENT UNLIMITED