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DATE 11-17-66 BY TBR

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Inter-Office Correspondence

MONSANTO RESEARCH CORPORATION

From LOCATION	Mound Laboratory, Miamisburg, Ohio	cc 1A - T. B. Rhinehammer
DATE	November 17, 1966	2A - L. B. Gnagey
SUBJECT	Repairs of Surveillance Facility in SW-208	3A - D. R. Spangler
REFERENCE		4A - J. P. Highland
		5A - Central Files

MOUND LABORATORY - MONSANTO
CENTRAL FILE NO. 66-11-286

ALMD66112811365

TO : Dr. T. Ben Rhinehammer

To assure the safe operation of the surveillance facility used for unloading reservoirs in SW-208 and to reduce the possibility of contaminating the reservoir gas with moist air while processing, it has been necessary to perform some minor repairs. This has required a period of six weeks for completion during which no reservoirs could be processed. This memo is written to give the reasons for such a long delay. During this time fifteen (15) reservoirs have accumulated for surveillance processing. The backlog of reservoirs will not only put a strain on the Surveillance Group for processing, but will tax support groups, such as Metallography and Mass Spectrometry, that serve Surveillance. Delay in reporting data to the design agencies is most unfortunate. The repairs should not have required six weeks for completion. Even after such long delays the quality of workmanship is low.

Each AVO submitted is discussed separately.

No. 1 AVO submitted Sept. 26, 1966 - M. R. Deaton

Subject: System modification

Called For: Insertion of two (2) valves and associated connecting lines.

Reason: 1) To permit monitoring of LASL and LRL machine bell-jar pressures.
2) To permit determinations of pressure for pressure-volume-temperature analysis.

Released through the
MOUND LS DR PROJECT
Classified through DOE's OPENNESS INITIATIVE
Record Copy held at Mound Facility

MOUND DECLASSIFICATION REVIEW

1. CLASSIFICATION ESTABLISHED BY: SECRET

2. CLASSIFICATION CHANGED TO: GROUP 1

3. CONTAINS NO DOE CLASSIFIED INFO

4. COORDINATE WITH: DOE

5. DECLASSIFICATION CANCELLED BY: DOE

6. DECLASSIFIED INFO BRACKETED

7. OTHER COMMENTS: None

1ST REVIEW DATE: 5/15/80

AUTHORITY: DOE

2ND REVIEW DATE: 4/15/80

AUTHORITY: DOE

NAME: Deaton

M.L.M. - CF - 88-04-0059, dated 4/15/80

GROUP 1
Excluded from automatic
downgrading and
declassification

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RESTRICTED DATA

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Dr. T. Ben Rhinehammer

-2-

November 17, 1966

Action Taken: Oct. 20, 1966 - Oct. 21, 1966, Installed valves and lines.
Oct. 25, 1966, Installed shaft extensions to valve handles.

- Comments:
- 1) Delay in starting work attributed to unavailability of welder. Valves finally silver soldered in place.
 - 2) Poor positioning of valves required the use of universal joints on valve handle extensions.
 - 3) Handles, due to proximity, are hard to operate.
 - 4) Collets used to join valve stem to extension shaft do not provide a positive action.
 - 5) Impossible to mount valve position indicating microswitches.

No. 2 AVO submitted Sept. 28, 1966 - M. R. Deaton

Subject: Replacement of ball valves

Called For: Removal of two (2) ball valves and replacement with new high-pressure valves.

Reason: The "dead" volume associated with ball valves permitted air to enter system each time the valve was operated.

Action Taken: Oct. 21, 1966, Replaced ball valves with high pressure valves (Silver soldered in place).
Oct. 25, 1966, Installed shaft extensions to valve handles.

Comment: Collets used to join valve stems to shaft extensions do not provide a positive action. (Requires adjustment at present, and has been used only three or four times.)

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Dr. T. Ben Rhinehammer

-2-

November 17, 1966

No. 3 AVO submitted Oct. 24, 1966 - M. R. Deaton

Subject: Replacement of two (2) high-pressure valves

Called For: Removal of old valves and replacement with identical type new valves.

Reason: Seat and/or stem leakage.

Action Taken: Oct. 26, 1966, Two new high-pressure valves installed.
 Oct. 31, 1966, Two new valve handle extensions installed.
 Nov. 1, 1966, Removed, rebuilt and remounted valves (leaked).
 Nov. 2, 1966, Removed, rebuilt and remounted valves (leaked).
 Nov. 3, 1966, Started to position microswitch actuator disk on extension shaft. Collet type couple failed. One disk was lost during one of the above operations.
 Nov. 7, 1966, Took measurements, fabricated new actuator disk and mounted same.
 Nov. 8, 1966, Mounted microswitch and positioned actuator disk.

- Comments:
- 1) Collets and universal joints used to make shaft to handle couples. Both collets failed to drive, one broke completely. Replaced same (Nov. 3) using identical mechanical arrangement, but put set screws in collets. (Insistence on this action by Surveillance Group personnel met with resistance.)
 - 2) Valves removed and valves inserted were identical; new valves required universal joints while the old valves did not due to poor positioning of valves.

As a matter of record, the Surveillance Group has approved only two types of valve handle to shaft extension couples: 1) sleeve and pin and 2) sleeve and weld.

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Dr. T. Ben Rhinehammer

-4-

November 17, 1966

Considering the fact that many of the valves used in this facility are ageing and will soon require new seats and the fact that maintenance is what it is, it would be advisable to process a major work order and schedule a down period of thirty (30) days for maintenance time shortly after the first of the year. This would provide time to process the items presently on hand, procure needed materials and assure us of the maintenance time required.

D. R. Spangler
D. R. Spangler

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