Monsanto
COMPANY ALVIN, TEXAS

CHOCOLATE BAYOU MAINTENANCE DEPARTMENT
STANDARD PROCEDURE
SAFETY SECTION

PLUMBERS PLUGS

PLAINTIFF'S EXHIBIT
MON-116

PURPOSE

The purpose of this procedure is to define safety guidelines for the use of plumbers plugs. A plumbers plug is an isolation device used on piping systems which are impractical to fully decontaminate.

SCOPE

This procedure covers the selection and installation of plumbers plugs and the use and regulation of the purge gas.

RESPONSIBILITY

It is the responsibility of the Maintenance Foreman and the Monsanto Contractor Foreman to insure that all personnel know and follow these guidelines.

PROCEDURE

I. Elastomer Selection

A. Services in which the standard off-the-shelf plumbers plug (Neoprene Seal) are used are:

Acetone	Paraffin
Acrylonitrile	Phosphoric Acid - 85%
Ammonia, Anhydrous	Snifo-Snifon (Fuel Oil)
Formaldehyde-Formalin	Sodium Hydroxide (10%-50%)
Mercaptan	Tertiary Butyl Catechol
Methanol	Triethylene Glycol
Nitrogen	Water & Steam not over 300°F
Oil, Lube	

Two Suppliers of these plugs are: 6113 20421

1. McMaster-Carr Supply Company, Model 2P6440

2. Texas Mill Supply, Inc., Model A-0900

SP026

By C. R. Rutan Apprv. CR Date 9/9/75 Procedure # ~~S-50~~

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PLUMBERS PLUGS

PROCEDURE (Continued)

B. All plumbers plugs are to be tagged as to elastomer material. A metal tag attached securely to the plug shall be used.

C. Unless the elastomer material is definitely known, do not use the plumbers plug in any service.

D. If a special elastomer is required, contact MTS for specifications.

II. Installation

A. Inside surface of pipe and the surface of the plumbers plug must be free from all foreign matter for proper seating.

B. After inserting the plumbers plug into the pipe, the wing nut must be tightened as much as possible (by hand). The plumbers plug must then be pushed, pulled and moved from side to side (by hand) to insure a proper seat has been made. If the plumbers plug slips or moves, it must be re-tightened. The above procedure shall be followed until the plug does not move.

C. Due to heat transfer through metal, welding shall be executed no closer than 6" from the elastomer of the plumbers plug.

III. Safe Pressure and Regulation of this Pressure

A. Do not exceed 10 PSI on standard plumbers plug.

B. A Fisher-type 630 (or comparable) regulator must be used to regulate pressure.

C. A 0-30 PSI pressure gauge must be used to insure purge flow. If the pressure gauge indicates more than 10 PSI, purge valve should be closed and all valves in the system checked for leakage.

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PLUMBERS PLUG

PROCEDURE (Continued)

D. For high pressure applications, in excess of 10 PSI, A.T.D.W. 1000 PSI plumbers plug must be used.

IV. Purging of Piping System

A. Inlet of purging media (nitrogen or inert gas) shall be located as close to the work as possible. (See Attachment #1)

B. Purge flow must be confirmed. Confirmation of flow can be accomplished by:

1. Pressure gauge indication.

2. Safety vapor test of exit gases.

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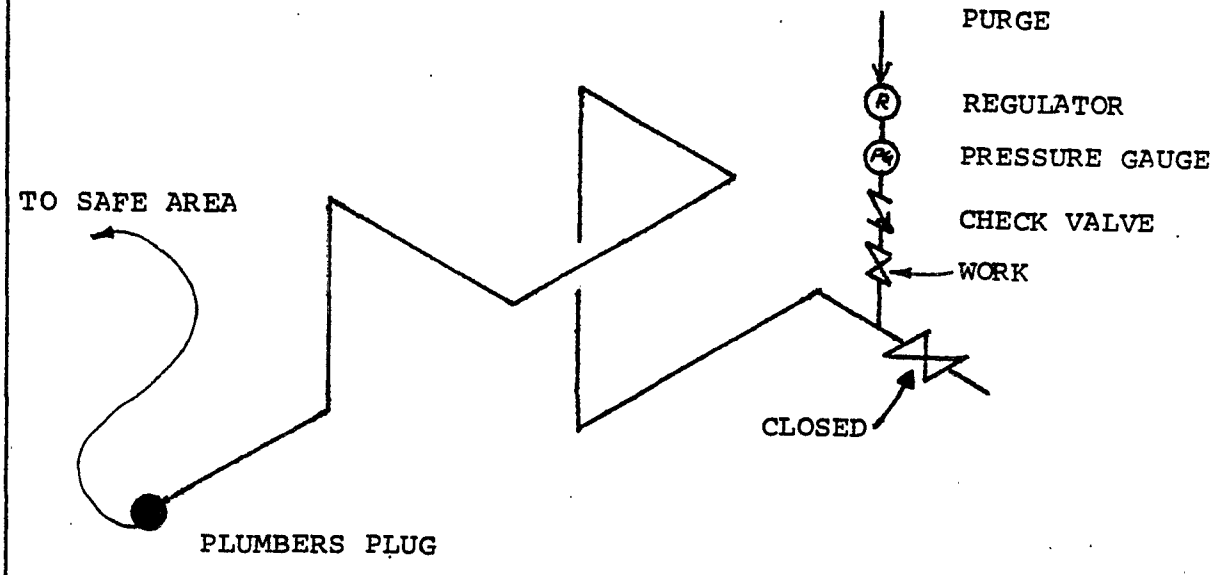
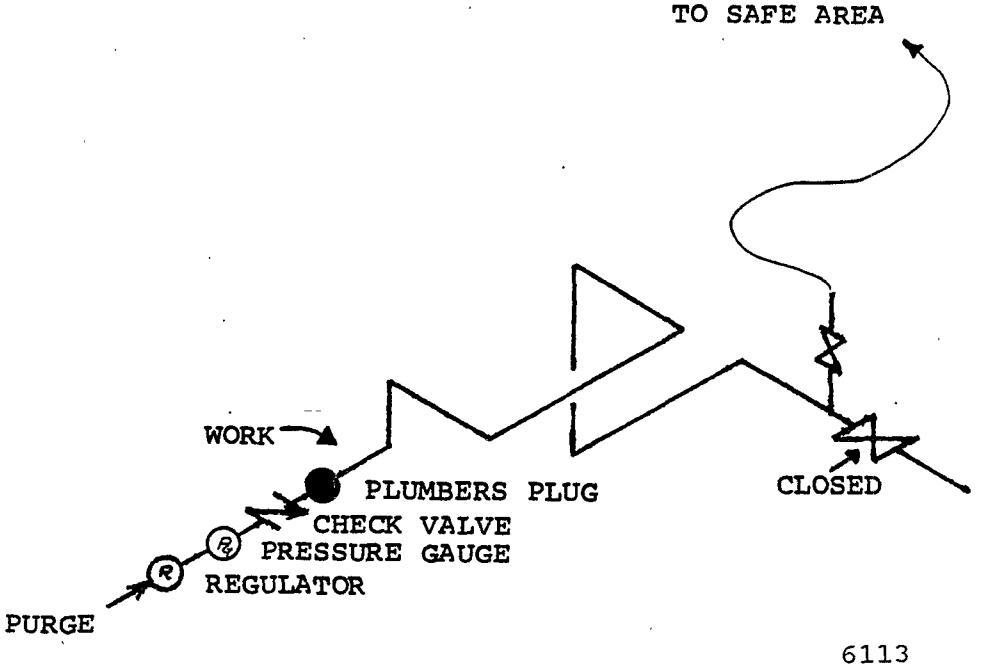
ATTACHMENT #1

PLUMBERS PLUGS





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