

1970

DEPT SGT F SHAC - This is the results of
our Survey!

Monsanto

FROM (NAME & LOCATION)

W. W. Latimer - 0-13

w.w.l.

DATE

November 23, 1983

cc.

G. Daues

T. Ryan

J. Trafton

SHAC

SUBJECT

Nitrogen Hose Stations

REFERENCE

TO

G. W. Bostick
G. A. Danner
R. A. Hernandez
D. D. Kos
H. Lacy
G. A. Orum
W. H. Triplett

PLAINTIFF'S EXHIBIT

MON-2130

All nitrogen hose stations in the plant should comply with Procedure Bulletin P-0126, copy attached. Please review all nitrogen stations in your area of responsibility and determine the total number of stations and the number that do not comply. Also, determine the cost and timing to obtain compliance, if necessary. I need your response by December 8, 1983, using the following chart.

Let me know if I can help.

W.W.L.
W. W. Latimer
for SHAC

Unit	Person Responsible	Number Of Stations	Number Not In Compliance	\$k Cost to Comply	Date To Comply
Styrene	Kos	40	31	3.2	1-9-84
Utilities	Orum	10	7	2.6	2-15-84
HCN Complex	Conrad	31	31	14.3	3-1-84
Methanol	Hernandez	19	3	.7	12-31-84
Acetic	Hernandez	16	2	.2	12-31-84
Oxo	Lacy	17	-0-	-0-	—
Esters	Lacy	9	-0-	-0-	—
PA	Lacy	21	1	NEED SO TO REPAIR	12
Lactic	Conrad	9	0	0	—
AN	Triplett	40	40*	24	2-15-84
Mat'l. Hand.	Bostick	79	37	6.5	3-15-84
Environmental	Danner	5	0	0	—

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* DOES NOT HAVE BLEED FOR CHECKING

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PROCEDURE BULLETIN — TEXAS CITY PLANT P-0126

NITROGEN DISTRIBUTION

I. PURPOSE

This bulletin establishes a procedure for the safe, efficient and economical distribution of nitrogen.

II. SCOPE

△ This procedure covers all users, or future users of nitrogen. Nitrogen is supplied by pipeline from Big Three Industries; supplemental and/or back-up nitrogen is supplied by way of an in-plant liquid nitrogen vaporizing system located at Power II.

Nitrogen is piped directly to departments requiring it.

A user is defined as any department with personnel having authority to open valves on nitrogen lines anywhere in the department.

△ This procedure covers all nitrogen brought into the plant by tank truck or tank car where the nitrogen pipeline distribution system is used. It does not cover nitrogen brought into the plant for purposes where the nitrogen distribution system is not used.

III. RESPONSIBILITY

A. Pipeline

The Utilities Department is responsible for nitrogen distribution headers up to the battery limits of using departments, or up to, and including, the first main block valve off of the header. Using departments are responsible for piping systems from the header block valve and inside battery limits. A using department is also responsible for piping systems taking nitrogen through its meter. This is true even though the piping leaves a using department's battery limits.

One exception to the above responsibility definition is the system supplying the South 22 Tank Area and Dock 1 only. The Utilities Department will assume operating responsibility for the meter, backflow preventer, and sub-header.

B. Supply

The Utilities Department is responsible for supply of nitrogen at present supply capabilities.

△ Big 3 Corporation is contracted to supply the plant with up to 475 k SCFH of nitrogen. Big 3 can and normally will peak up to 650 k SCFH if requested. It is important to remember that they have no obligation to exceed the contract amount of 475 k SCFH and that they expect advance notification regarding plant demands above contract level. For this reason the Utility Department must be notified in advance of above normal nitrogen needs.

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ORIGINAL ISSUE: 10/15/74

REVISED: 5/3/82

See → △

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PROCEDURE BULLETIN — TEXAS CITY PLANT P-0126

NITROGEN DISTRIBUTION

The Instrument Department is responsible for making a quarterly inspection and an operational test of each back flow preventer. The results of each test and inspection will be reported to the respective owner.

E. Safety

1. Repairs

The owner of a piping system is responsible for periodic inspection and repair of his nitrogen piping and elimination of abandoned nitrogen piping.

2. Cross Contamination

Owners are responsible to see that the nitrogen distribution system is not contaminated from within an owner's system.

3. Installation Standards

Owners are responsible for conforming to installation standards. (See Appendix A, B, and C for information only.) All new work must be made to conform to the then existing standard.

4. Drawings

The owner/user is responsible for the safety and conservation of nitrogen within his department or owned facility. An annual review of nitrogen uses and updating of distribution drawings is good practice and is strongly recommended. Engineering Services - Design is responsible for supplying drawings, on request, for review and updating by unit supervision. Engineering Services is also responsible for updating the drawings as directed by the owner and reissuing corrected drawings.

F. Metering

All user's systems must have an accounting meter at their battery limit (or equivalent location) to record total nitrogen use for cost distribution. The meter must also give the instantaneous usage for purposes of rate coordination. Any addition to nitrogen system must meet these requirements.

IV. PROCEDURE

A. New Installation

Any addition to the present nitrogen system must be approved as follows:

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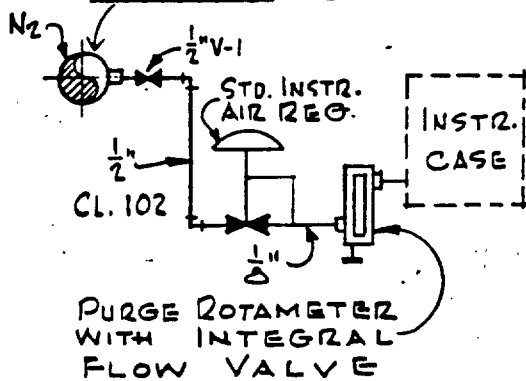
hydrocarbons
division
engineering

Construction-Maintenance Spec
NITROGEN CONNECTIONS

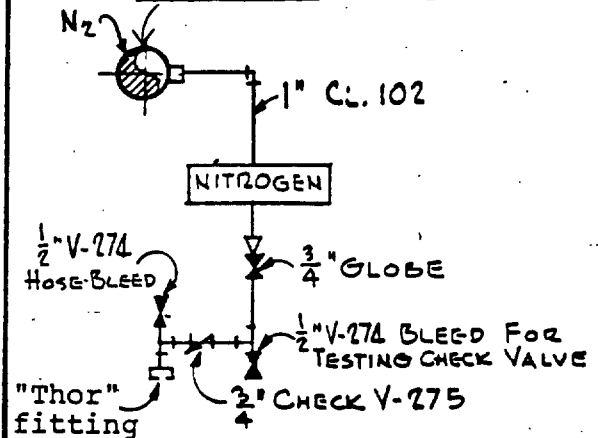
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date Sept. 1, 1960

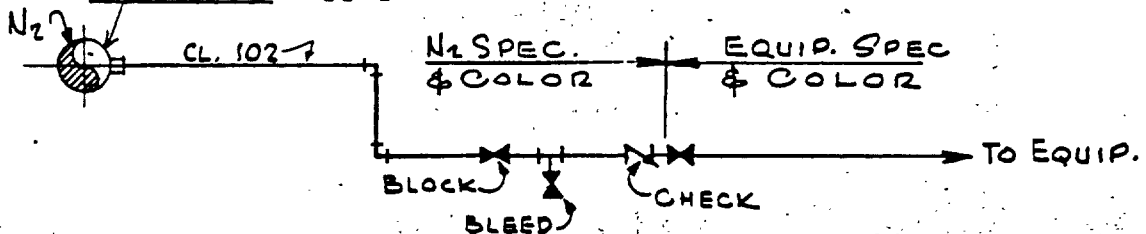
CASE I: INSTRUMENT CASE PURGE
In-battery supply line



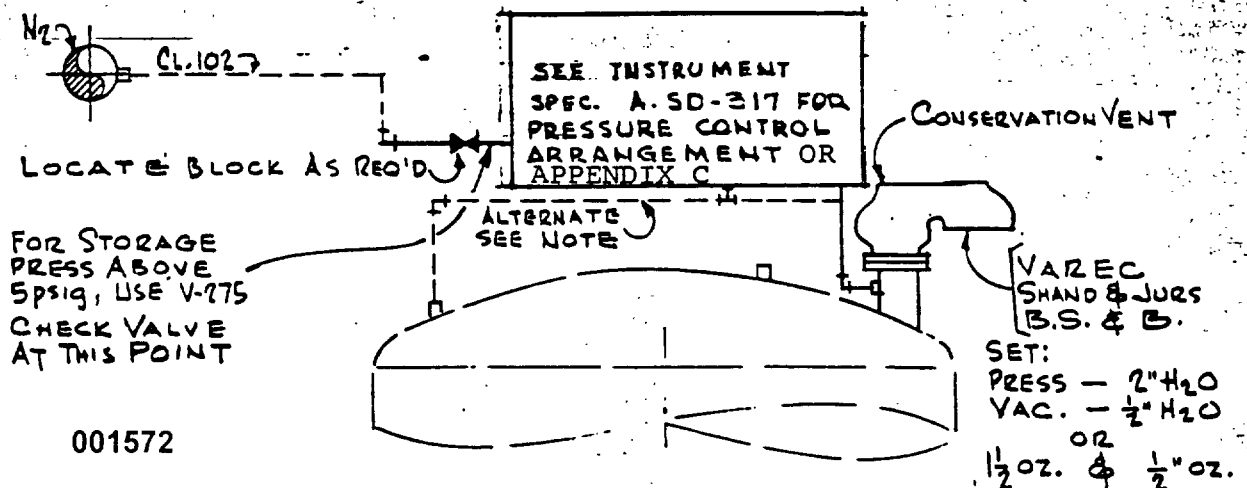
CASE II: HOSE STATION
In-battery supply line



CASE III: PERMANENT CONNECTION TO PRESSURED EQUIPMENT
In-battery supply line



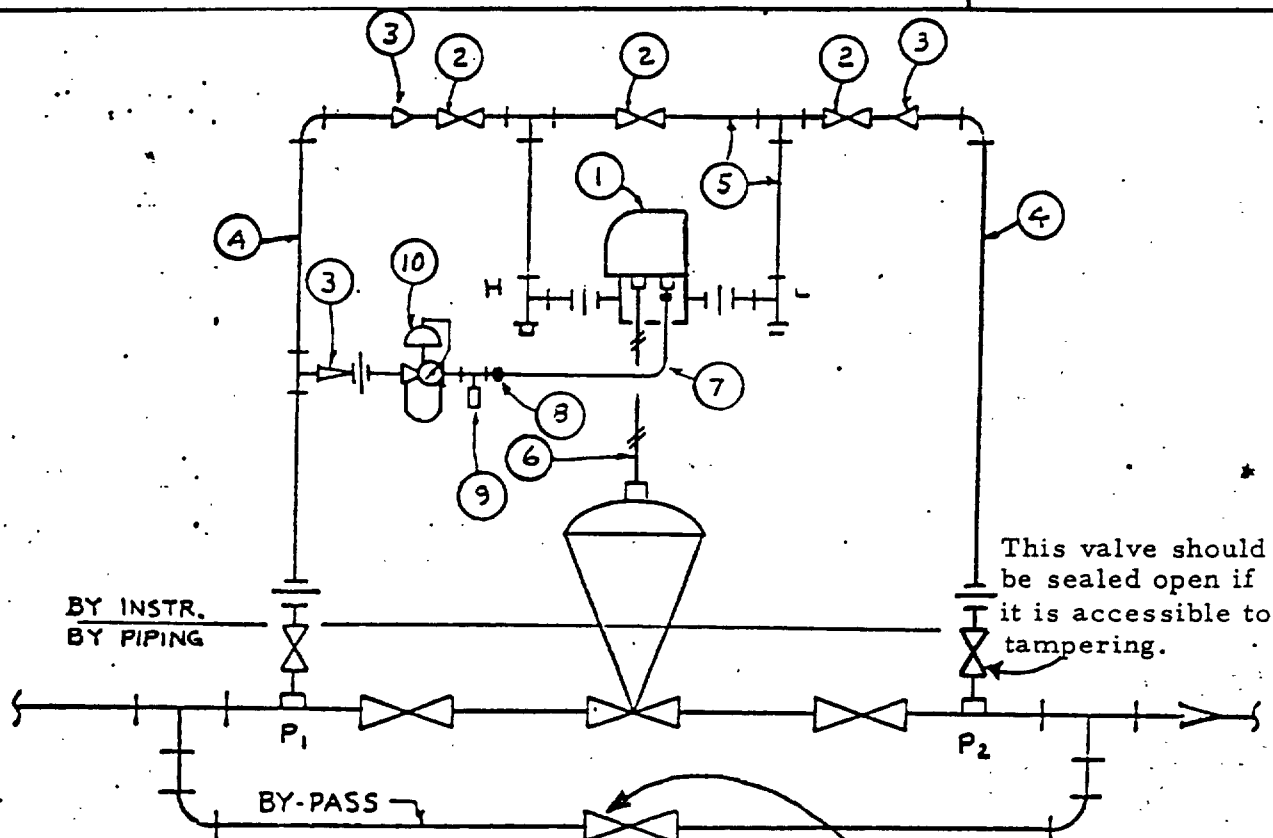
CASE IV: BLANKETED "ATMOSPHERIC" STORAGE



NOTE: Locate injection point on vent nozzle if "RICH" vapor space is desired - on opposite side for sweeping action or purge.

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Instrument: Foxboro Type 13A D/P Cell

Range: 0-30" H₂O

Action: 0" Differential 0 psig output
30" Differential 15 psig output

Valve: Fisher E Body 300 lb. Flgd.
single seat quick opening plug;
air to open.

This valve must be sealed
(or chained and locked)
closed during normal
operation.

LIST OF MATERIALS		
NUM.	QUAN.	DESCRIPTION
1	1	D/P Cell
2	3	1/4" Ball Valve H-M #502-S6-T-S6
3	3	1/2" x 1/4" Swage (TBE)
4		1/2" Sch. 80 Pipe
5		1/4" Sch. 80 Pipe
6		1/4" CU Tubing
7		3/8" CU Tubing
8	2	Male Connector S.L. #600-1-4
9	1	Imperial Kwik-Connect Body #298 PT - 1/4 - PT
10	1	Filter-Regulator-Foxboro #B-110-XR W/Gage #P-103-WN

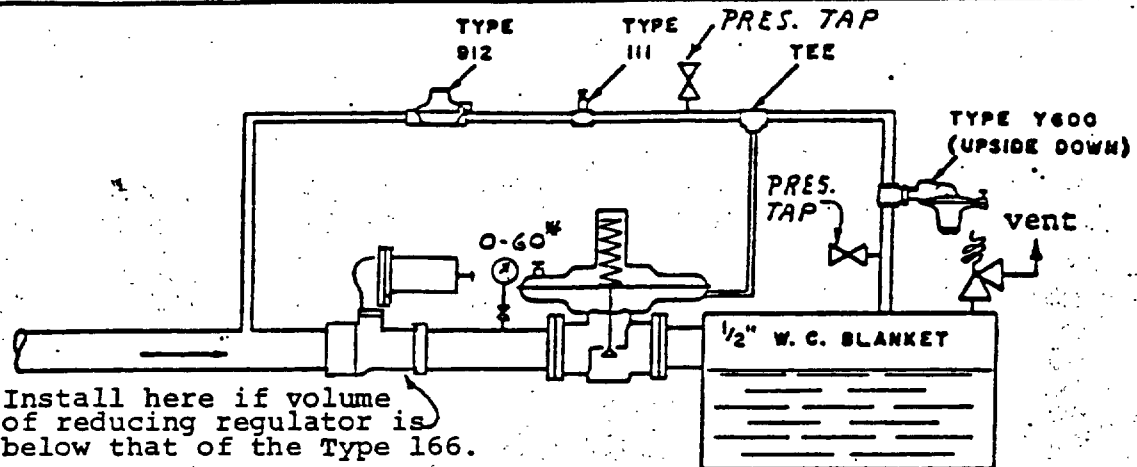
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NOTICE

APPENDIX C

This drawing and the information contained therein is the property of Monsanto Company and is loaned with the expressed agreement that it will not be reproduced, copied or otherwise disposed of, directly or indirectly, and will not be used, in whole or in part, to furnish any information for the making of apparatus or the practicing of any process without written permission of Monsanto Company first obtained and specific as to each case. The acceptance of this drawing will be construed as an acceptance of the foregoing statement.



A suitable system for low pressure gas blanket control on liquid storage tanks and process tanks has been sought for many years. Some of the requirements in such a system are as follows:

- High speed of response to protect the tank in the event of sudden surges.
- Accurate control at low pressure since many of these systems are designed for blanket pressures as low as $\frac{1}{2}$ " water column.
- Economical initial installation.
- Simple, easy to maintain, reliable components.

Through experience, we have found that self-operated Type 66, 66Z, 66ZZ or 166 will not perform satisfactorily when gas blanket pressures of 2" w.c. or less are required. A pilot operated system, shown schematically above, was devised to handle these low pressure requirements.

The components of this pilot operated system are:

- Main Valve** — Type 66 with pitot tube plugged. Type 166 may also be used. It is recommended that the valve size be $\frac{1}{2}$ " to 1" oversize for fast, high capacity action. Valve incorporates 14" w.c. to 28" w.c. spring set at 10 ounces and is installed close coupled to the process or storage tank.
- Sensing Element** — $\frac{3}{4}$ " Type Y600 regulator with $\frac{1}{2}$ " orifice and set at $\frac{1}{2}$ " w.c. Type Y600 is installed upside down so that the weight of the parts will aid the regulator in maintaining the $\frac{1}{2}$ " w.c.

setting. This regulator also acts as the variable orifice in the pilot system.

- Fixed Orifice — Type 111 lock shield needle valve.
- Pressure Regulator — Type 912 set at 12 ounces.
- Standard $\frac{3}{4}$ " pipe tee.

Principle of Operation

The main valve, Type 66 or 166, is installed close coupled to the process or storage tank to eliminate all possible time lag of gas entry to the tank. On a decrease of pressure in the tank of 0.1" w.c., the Type Y600 regulator opens, relieving the pressure from the lower diaphragm casing of the Type 66 or 166 main valve. This causes the main valve to open, allowing gas to enter the tank. Since the maximum droop or offset of a Type Y600 on 0.4" w.c. to 1.0" w.c. control is 10%, the control range of the gas blanket is 0.1" w.c. At $\frac{1}{2}$ " w.c. or slightly above, the Y600 closes, causing a buildup of gas pressure under the main valve diaphragm and closing the Type 66 or 166. The allowable inlet pressures for this system are as follows:

Type 66	Type 166-1	Type 166-2
2" Size — 10 psi		
3" Size — 5 psi	125 psi	60 psi
4" Size — 5 psi		

THIS DRAWING IS FOR INFORMATION ONLY. CONSULT ENGINEERING SERVICES DEPT. FOR INSTALLATION DESIGN.

NO.	PROJ. NO.	DR.	DET. DATE	REVISIONS	APPROVALS
DR.					
CHECKED					
APPD					
SCALE					

Monsanto

ENGINEERING DEPT.

COMPANY TEXAS CITY, TEXAS

FISHER GOVERNOR COMPANY LOW PRESSURE GAS BLANKETING CONTROL SYSTEM

PROJ. NO.

PLANT

AREA NAME

DWG. NO.

A-SD-317 R/

LAM002777