

UNION
CARBIDE

INTERNAL CORRESPONDENCE

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CHEMICALS AND PLASTICS

P. O. BOX 471, TEXAS CITY, TEXAS 77590

TO (NAME) Mr. W. A. Mazzolini
COMPANY
LOCATION Texas City Plant

DATE November 28, 1978

COPY TO Mr. H. P. Brady
Mr. J. [REDACTED] ✓
Mr. W. T. Gray
Mr. J. C. Ledvina
Mr. J. R. Rex
Mr. P. D. Smith

SUBJECT EPA-VCN Regulations
Affect On EP Pollution Limit

SOLVENT VINYL RESINS
AUTOCCLAVE CIRCULATING PUMP SEALS

The EPA-VCN Regulations require the steam pumps at Bldg. 115 to be double sealed. These seals require the use of acetone, and, if not carefully watched, can lead to high pollution losses, which we will not be able to tolerate after January 1 of this year.

When the seals were first changed, a rod with a coating of LC-4 (Linde) was used with a spring type connection. (See Diagram 1). It appears that after a short while the springs would work loose and scratch the rods enough so the process could attack the coating, which flaked off, allowing varnish to escape. Not only was this adding to pollution losses but it was also violating the EPA VCN requirements.

It was then decided that a nickle-chrome coating should be used, and at the same time the method of packing was changed so that a lantern ring was used instead of the springs. (See Diagram 2). This lantern ring allowed for the packing assembly to be tightened up to an inch before the packing needed to be changed.

This method was installed on the B-4 autoclave steam pump and has now lasted up to 1600 hours without even being tightened. The old method lasted from 800 to 1200 hours and then the whole works had to be changed out.

This has also cut acetone losses from the B-4 steam pump to an apparent minimum. Further testing will be done on the B-4 steam pump, but the new system appears to be far superior to any we have tried.

Attached is a tabulation of the results obtained so far. My recommendation is that we go ahead and change the other pumps to the new system as soon as possible since we will have only a 500 lbs/day total carbon limit for the entire Solvent Vinyls area by January 1 of next year. If we can limit the pollution to 1000 ppm from Bldg. 115, we will only be adding 50 lbs/day to the unit total.

TLS/st
Attachments (3)

Terri L. Sears
Terri L. Sears

UCC
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<u>Date</u>	<u>Autoclave Pump</u>	<u>PPM Ace</u>	
10/23/78	B-2	4,260	
	B-3	55	
	B-4	4	new system
	B-5	10,180	
	B-6	149	
	B-7	12,900	
	B-8	10,111	
	B-9	36	
	B-10	70	
	B-11	138	
	11/10/78	B-2	48,300
B-3		55	
B-4		11	new system
B-5		67	
B-6		83	
B-7		43,700	
B-8		281	
B-10		38	

Daily Trench Samples Bldg. 115

* Limit 1,000 ppm total/day

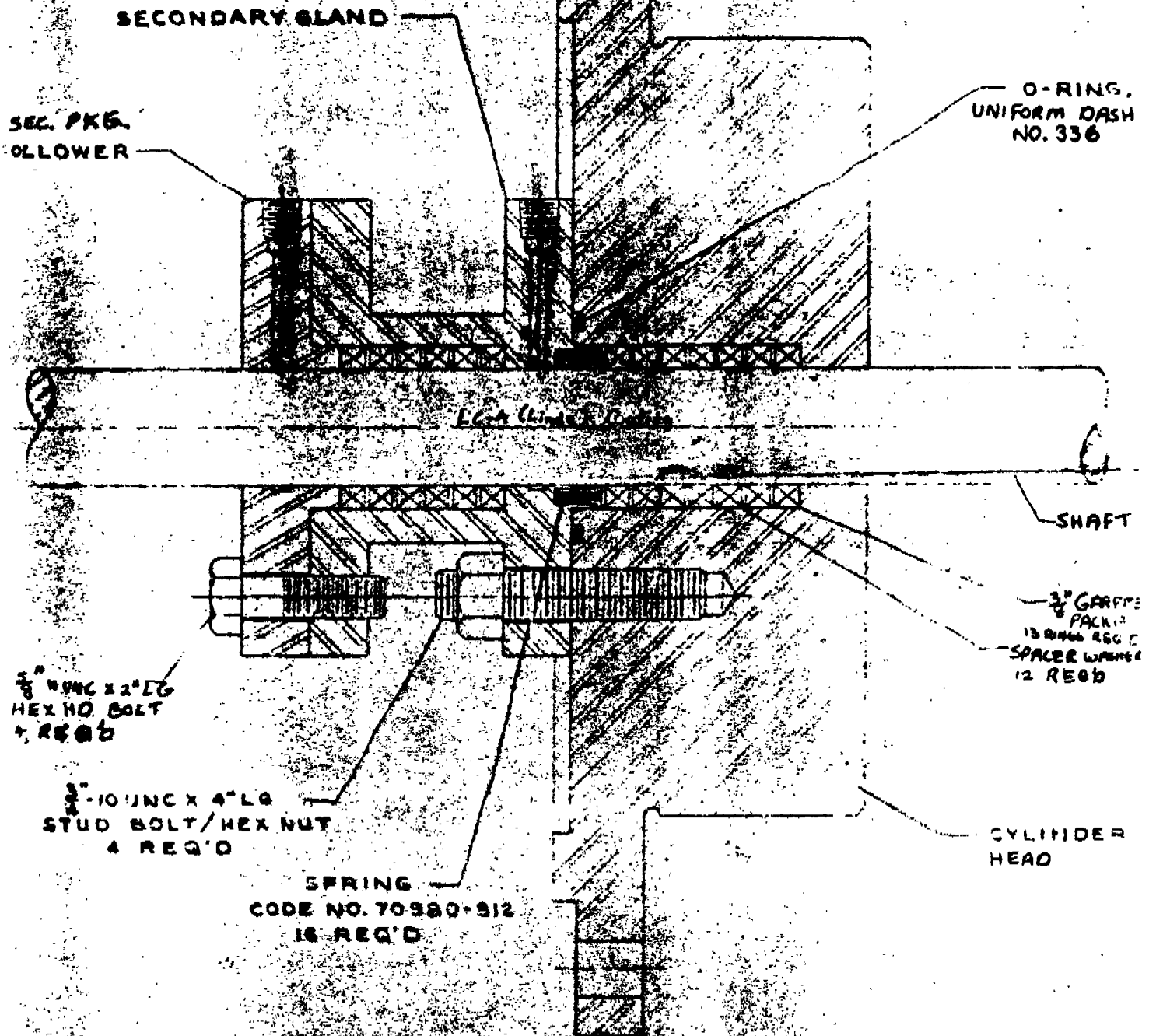
<u>Date</u>	<u>N. Trench</u>	<u>Total Carbon (ppm)</u>	
		<u>S. Trench</u>	<u>Total</u>
11/14/78	170	780	950
11/15/78	720	960	1,680
11/16/78	500	600	1,100
11/17/78	320	1,000	1,320
11/20/78	700	1,850	2,550
11/21/78	900	850	1,750
11/22/78	925	735	1,660

Terri L. Sears
November 28, 1978

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BEFORE



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