

INTER-OFFICE MEMO **TENNECO CHEMICALS, INC.**

TO	J. K. Jacobs	AT	Piscataway	DATE	October 11, 1976
FROM	J. P. Sandstedt ✓	AT	Piscataway	COPY TO	D. C. Coldiron P. Scheiner E. J. Schuetz C. G. Thompson
SUBJECT	Carbon Adsorber - Burlington DEI - 509				

Attached are the design bases for the Burlington carbon adsorber. These reflect our current schemes to achieve compliance with the EPA/VCM Standard. The number of feed streams have been reduced to -

1. Vent condenser
2. Off-gases from Nitrogen stripping of dispersion latex
3. Gases used to transfer suspension resins

As you know we are re-evaluating transfer pumps for copolymer slurries. In addition, we have an ongoing program to investigate the continuous stream stripping of dispersion latex - but this promises to be a protracted effort.

J. P. Sandstedt

CARBON PLANT DESIGN BASIS

ANTICIPATED LOADINGS OF VCM

1. VENT CONDENSER — 2,000 #/DAY

2. DISPERSION STRIPPING — 1,200 #/DAY (w/o Recovery)
700 #/DAY (w/Recovery)

3. H₂O/CO STRIPPER EVACUATION (Batch Transfers)
— 10 #/DAY

VENT CONDENSER STREAM

ES. LOADING — 2000 LBS/DAY OF VCM

FLOW RATE : 100 SCFM for 10 minute
periods

TYPICAL CONCENTRATION: 26.0 Vol % VCM
74.0 Vol % N₂
200 ppm Vinyl Acetate

H₂/CO STRIPPER EVACUATION

Flow Rate - 550 SCF of N₂ to be evacuated in
10 Minutes. Only one evacuation
from combined H₂/CO Stripper at
any one time.

Concentration - 500 ppm - 5000 ppm

36 BATCHES per Day

VCM LOADING = 10 LBS/DAY

CARBON PLANT DESIGN BASIS

DISPERSION STRIPPING

A PLANT

Design Basis = 600 #/DAY of VCM
(total 2 strippers)

300 #/DAY w/ Recovery of VCM

N₂ Rate : 5 SCFM (each stripper)

MAXIMUM OVERLAP — 1 1/4 HRS

B PLANT

DESIGN BASIS = 600 #/DAY OF VCM
(total 2 strippers)

400 #/DAY w/ Recovery

N₂ Rate : 5 SCFM (each stripper)

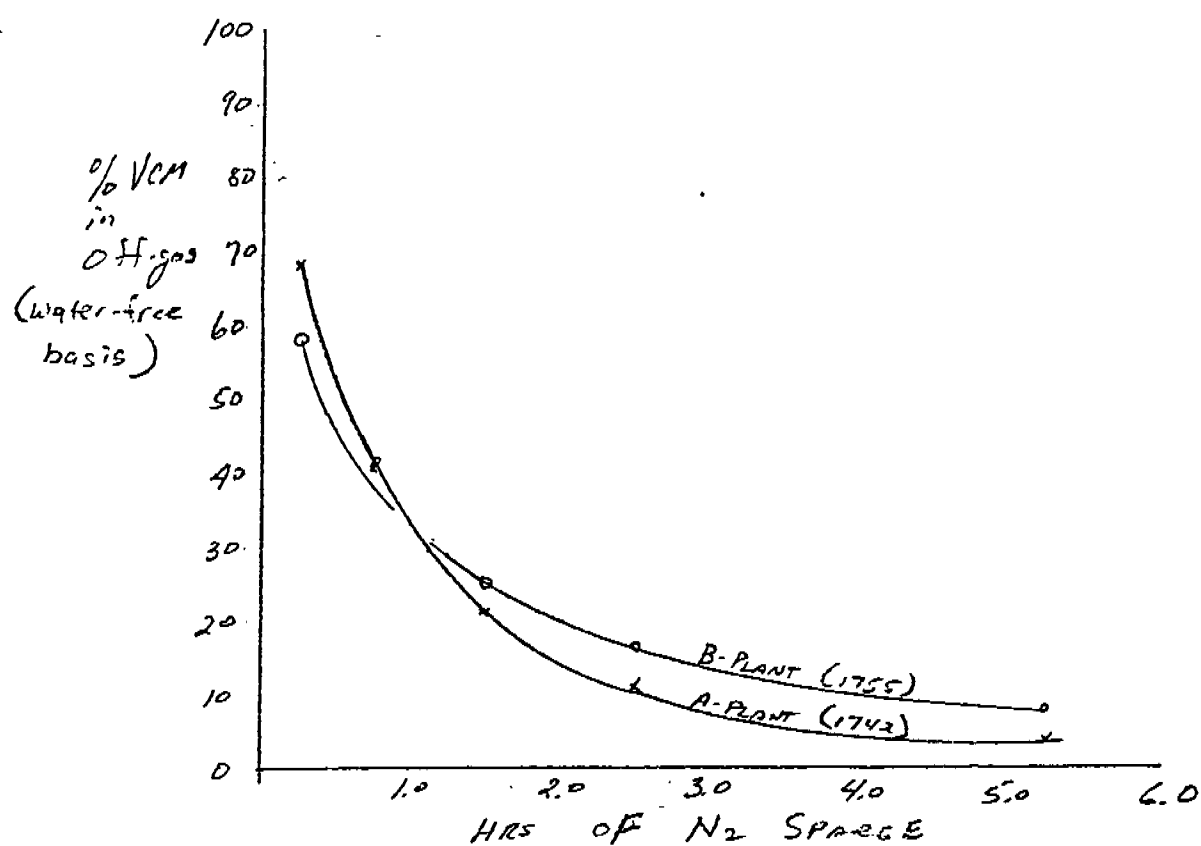
MAXIMUM O' LAP — 1 1/4 HRS

COMBINED

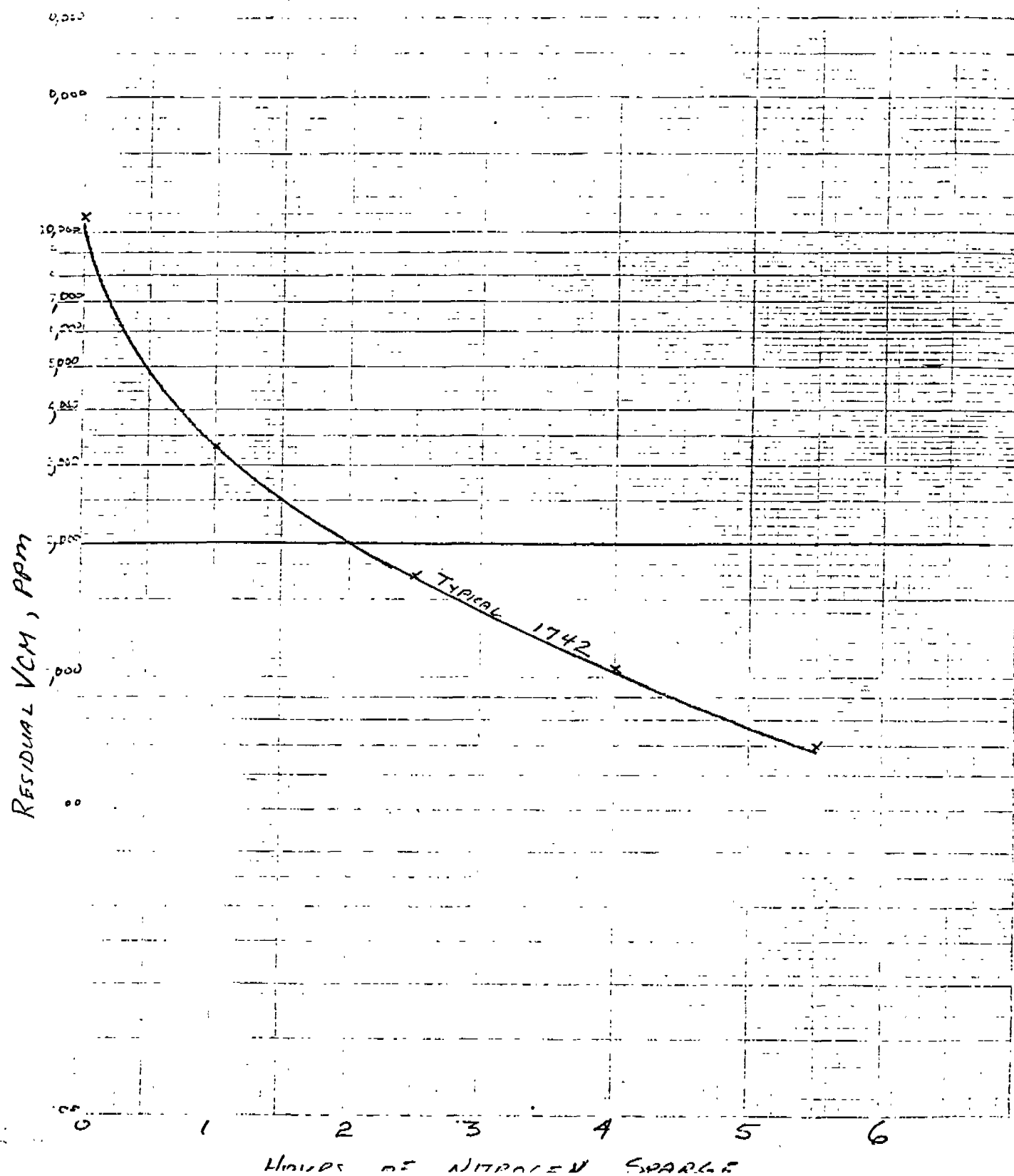
TOTAL VCM — 1200 #/DAY (NO RECOVERY)
700 #/DAY (w/ RECOVERY)

N₂ Rate — Max : 20 SCFM

DISPERSION STRIPPING
TYPICAL OFF-GAS STREAMS



A PLANT TYPICAL STRIPPING CURVE



COLORITE 017767

B PLANT
TYPICAL STRIPPING CURVE

RESIDUAL VCM, ppm

0.000

0.000

0.000

0.000

0.000

TYPICAL 1755

0 1 2 3 4 5 6
HOURS OF NITROGEN SPARGE

COLORITE 017768