

MONSANTO CHEMICAL COMPANY

Springfield, Mass.

N. J. Nichols

July 24, 1961

Unloading VCM Tank Cars

R. W. Bueker

Unloading time for VCM cars has been estimated as outlined below:

	3 Regular Size (10-11,000 gals.)	3 King-Size (20,000 gals.)
Hook up	1 hr.	1 hr.
Pumping liquid	$3\frac{1}{4}$ - 4 hrs.	7 - 8 hrs.
Pumping vapor	$1\frac{1}{2}$ - 2 hrs.	3 - 4 hrs.
Disconnect	$\frac{1}{4}$ - $\frac{1}{2}$ hr.	$\frac{1}{4}$ - $\frac{1}{2}$ hr.
Total Time	$6\frac{1}{4}$ - $7\frac{1}{2}$ hrs.	$11\frac{1}{4}$ - $13\frac{1}{2}$ hrs.

The above time estimates are based on summer temperatures. During winter months time for pumping vapors can be cut in half and sometimes more, depending on pressure needed to unload car.

The liquid pumping time may be faster for king-size cars because they will be equipped with 3" excess flow valves instead of 2". We have no experience on which to base a faster unloading time through the larger valves.

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