To: (Sara 313 -1997)
From: KMJ/BAS
Date: 6/12/98

1997 VCM Calculations

Fugative and Leaks	(Fugative)	3556.00 #
BWS	(Fugative)	48.58 #
R/C Unloading	(Fugative)	150.59 #
Stack	(Point)	14674.00 #
Pond 5		0.00 #
		18429.17 # VCM

Stack (Point) - <from RVCM & ROL Spreadsheet>: = 14674 # VCM

Pond 5 - VCM Calculations <from Sara 1997.xls Spreadsheet>: = 0.00 # VCM

Removal Efficiency: = 100.00 %

Railcar Unloading (Fugative VCM):

630358600 # VCM	R/C	0.043 # VCM (Res)	150.5857 # VCM
	180,000 # VCM	R/C	

BWS (Fugative) <Based on Data From 1995>:

BWS Fugative VCM From 1995: 43.58 #
Production Ratio (of PVC) 1997 / 1996 : 1.11

Since BWS emissions are generated only through production of PVC. This production ratio will be used to determine the 1997 BWS Fugative VCM emissions.

1.1147987	43.58 # VCM	48.58 # VCM

Fugative and Leaks: 3556 # VCM <obtained from the Environmental Coordinator - calculated during the year based on reported leaks>

Removal Efficiency of the Incinerator for VCM:

Average incinerator burn time:	16.2 hr./day	<from Vinyl Daily Reports>
Flow Rate of Incinerator Stream:	500 SCFH	(From ENSR Stack Test)
Concentration of VCM in Stream:	40 % VCM	(From ENSR Stack Test)

Pounds of VCM/cubic feet VCM 62.5 # VCM/ 379 cubic feet of VCM

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<1997 VCM Calculations Continued>

Amount of VCM/yr. in the Incinerator Influent:

$$\frac{500 \text{ scfh}}{\text{hr}} \left| \frac{16.2 \text{ hr}}{\text{day}} \right| \frac{365 \text{ day}}{\text{yr}} \left| \frac{0.40 \text{ ft}^3 \text{ VCM}}{\text{ft}^3} \right| \frac{62.5 \text{ \# VCM}}{379 \text{ ft}^3 \text{ VCM}} = 195019.8 \text{ \# VCM/yr}$$

Amount of VCM/yr. in the Influent of Pond 1: 1682 #/yr.
<from Sara 1997.xls>

Efficiency of the Removal of VCM through the Incinerator:

$$\left(\frac{195020 \text{ \# VCM} - 1682 \text{ \# VCM})}{195020 \text{ \# VCM}} \right) \times 100\% = 99.14 \%$$

Production Ratio : Since Condea Vista's only use for VCM is in the production of PVC resin, then the production amounts of PVC for 1995 and 1996 are to be used as the factors to determine 1997 reporting year's production ratio for VCM:

$$\text{Production Ratio} = \frac{\text{\# PVC Resin in 1997}}{\text{\# PVC Resin in 1996}} \quad \frac{630358600}{565446143} \quad 1.11$$