



Interoffice Communication

To J. C. Ledvina - Houston
From V. M. Fisher
Date November 19, 1981
Subject VOC Regulation Impact on VCM Plant's
Modernization Effort

Attached are the new Tables I & II which were issued in the previous letters, "VOC Regulation Impact on VCM Plant's Oxychlorination Revamp Project," Spet. 22, 1981 and its revision issued October 9, 1981. Since the issuance of both letters more definitive information has become available concerning the existing equipment in VOC service which can be successfully modified, in accordance with the EPA standards.

Based on this information the scope varies moderately, however, the bottom line does not. As it stands now the offsets obtained through existing equipment modifications, Table I, total 44.107 lbs./hr. This means that the available offsets will compensate the plant modernization but will not compensate the entire plant expansion. However, not included in this offset sum are the open-ended valves on process lines being plugged. This work is currently being done by the plant. Offsets from these will be tabulated and added to this offset sum at a later date, although its estimated that 26 plugged valves could make up the 0.230 lb./hr. difference. The likelihood of attaining this number of valves is promising.

	<u>Lbs./Hr. Voc</u>
Total available fugitive emission offsets	44.107
Total increased fugitive emissions from entire plant expansion - Case I	44.337
Total increased fugitive emissions from plant modernization - Case II	16.622

As the scope of the modification to existing equipment becomes more define the total available fugitive emission offsets will possibly be revised. In addition, the following items need clarification.

- 1) It is being assumed that equipment modifications previously completed or presently being accomplished are "claimable" as offsets. Does the EPA have a retroactive date to determine which modifications are claimable? If so what is this date?
- 2) Can open-ended valves in vinyl service that are to be plugged be claimed as offsets?

CCR 000017718

A response to the questions above is requested as soon as possible. Please contact me concerning any questions or comments you have regarding this letter.


Virgil M. Fisher
Process Engineer

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cc:

JAD-JWW-GLF-MLA-DLD-JGC-JJH-MGH-GCB-BIR-GJF

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TABLE I
NEW VOC FUGITIVE EMISSIONS FOR OXY REVAMP

<u>Fugitive Emission Source</u>	<u>Number of Sources</u>	<u>Uncontrolled Emission Factor lb/hr</u>	<u>Total Uncontrolled Emissions lb/hr</u>	<u>Controlled Emission Factor</u>	<u>Total Controlled Emissions lb/hr</u>
New Pumps (Controlled) ²	2			0.00	0.00
New Relief Valves (Controlled) ²	6			0.00	0.00
New Non-Vinyl Compressors (Controlled) ²	3			0.00	0.00
New Valves					
Case 1: (1)					
Process Valves in Vapor Service	241	0.0463	11.158		
Process Valves in Liquid Service	500	0.022	11.000		
Instrument Valves in Vapor Service	298	0.0463	13.797		
Instrument Valves in Liquid Service	381	0.022	8.382		
Total	1,420		44.337		
Case 2: (2)					
Process Valves in Vapor Service	107	0.0463	4.954		
Process Valves in Liquid Service	98	0.022	2.156		
Instrument Valves in Vapor Service	185	0.0463	8.566		
Instrument Valves in Liquid Service	43	0.022	0.946		
Total	433		16.622		

(Table I)

Notes:

- 1) A definitive estimate of the entire expansion from PED.
- 2) A preliminary estimate of the oxychlorination modernization from PED.
- 3) Estimated valve split for the entire expansion is 40% in vapor service and 60% in liquid service. Estimated valve split for the oxychlorination modernization is 70% in vapor service and 30% in liquid service.

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TABLE II
AVAILABLE OFFSETS FROM EXISTING VOC FUGITIVE EMISSION SOURCES

<u>Fugitive Emission Source</u>	<u>Number of Sources</u>	<u>Uncontrolled Emission Factor lb/hr</u>	<u>Total Emissions lb/hr</u>	<u>Controlled Emission Factor</u>	<u>Total Available Offsets lb/hr</u>
Existing Pumps	44	0.265	11.660	0.00	11.660
Existing Safety Relief Valves	73	0.353	25.769	0.00	25.769
Existing Sampling Connections	26	0.033	0.858	0.00	0.858
Existing Compressors	6	0.97	5.820	0.00	5.820
					<u>44.107</u>

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