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Union Carbide Corporation
A Subsidiary of The Dow Chemical Company
P.O. Box 8361
437 MacCorkle Avenue, SW
South Charleston, WV 25303
USA

March 6, 2015

RECEIVED
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WV DEP / DIV OF AIR QUALITY

Ms. Beverly McKeone
New Source Review Program Manager
WV Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Dear Ms. McKeone,

RE: Union Carbide Corporation (UCC) South Charleston Facility
Regulation 13 Permit Number R13-1517B
Specialty Surfactants Plant
Class I Administrative Update Request

A Class I Administrative Update is requested for the following changes:

- Route Tank 8382 vent (Emission Point Id. T8382) to the Specialty Surfactants Plant water scrubber (Equipment Id. 8130, Emission Point E-1081-3). The requested permit revision meets Class I administrative update criteria for a change in emission point with a decrease of emissions (Regulation 13, Section 4.2.a.8). The change is planned for implementation during the 2nd or 3rd quarter of 2015.
- Update of Tank Volumes.

Tank 8330, 8340 and Tank 8382 Discussion:

The material stored in Tank 8330 is a non-VOC liquid. There are no emissions of regulated pollutants from Tank 8330. Tank 8330 vent is routed to the air. Change is incorporated in attached updated Emission Units table.

Tank 8340 vent is routed to the process scrubber system. The emission point identification number in Table 4.1.1 of Condition 4.1.1 needs to be changed to E-1081-3.

The material processed through T8382 is a heavy, non-HAP organic liquid. The tank currently vents to the air. Routing T8382 vent to the scrubber will result in a decrease of volatile organic compound emissions. Estimated maximum VOC loading to the scrubber for Tank 8382 is less than 0.02 lbs/hr and 2.0 lbs/yr. The material is slightly soluble in water and will be removed from the vent stream by the water scrubber. There will be no change in currently permitted VOC emissions for Emission Point E-1081-3.

Tank Volume Updates Discussion:

Tank volumes were recently checked for accuracy. The current permit lists rounded numerical tank volumes. Updates to the tank volumes are requested be consistent with refined engineering calculations. There are no changes in permitted emissions or applicable requirements.

The proposed changes affect R13-1517B, Section 1.0-Emission Units (see Attachment 1) and Condition 4.1.1, Table 4.1.1 (See Attachment 2). Requested revisions are shown in bold underline/strike-through text.

If there are any questions regarding this request for a Class 1 administrative permit amendment please call Freddie Sizemore 747-3713 or via email sizemofa2@dow.com.

Sincerely yours,

Jonathan M. Raess
WVO Responsible Care Leader

Attachments

Attachment 1
From Permit R13-1517B: Pages 4, 5 & 6

1.0. Emission Units

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
8400	E-1081-3	8400 Reactor	--	--	C-8110 and C-8130
	E-1084-1 & E-1084-2				NA
8500	E-1081-3	8500 Reactor	--	--	C-8110 and/or C-8130
	E-1085-1 & E-1085-2				NA
8600	E-1081-3	8600 Reactor	--	--	C-8130
	E-1086-1 & E-1084-2				NA
8617	E-1081-3	8617 Reactor	--	--	C-8130
	E-1086-3 & E-1084-2				NA
8800	E-1081-3	8800 Reactor	--	--	C-8130
	E-1088-1 & E-1084-2				NA
8310	E-1081-3	Tank 8310	1992	~~8,400 gal~~ **9,300 gal**	C-8110 and C-8130
8330	~~E-1081-3~~ **T-8330**	Tank 8330	1976	~~8,000 gal~~ **9,818 gal**	~~C-8110 and C-8130~~ **NA**
8340	~~T8340~~ E-1081-3	Tank 8340	1944	~~7,000 gal~~ **6,100 gal**	C-8110 and C-8130
8353	E-1081-3	Tank 8353	1959	~~22,000 gal~~ **21,500 gal**	C-8130
8363	E-1081-3	Tank 8363	1959	~~22,000 gal~~ **21,500 gal**	C-8130
8370	E-1081-3	Tank 8370	1975	~~6,400 gal~~ **6,000 gal**	C-8130
8528	E-1081-3	Tank 8528	1975	~~3,000 gal~~ **3,550 gal**	C-8110 and C-8130
8621	E-1081-3	Tank 8621	1976	~~7,200 gal~~ **7, 400 gal**	C-8130 or None
8540	E-1081-3	Tank 8540	1994	~~6,400 gal~~ **7, 400 gal**	C-8110 and C-8130
8101	E-1081-2	Vessel R8101	1977	--	E-8105
D-8415	E-1084-2	Triad Hotwell	--	--	NA
D-8515	E-1085-2	LCAP Hotwell	--	--	NA
8636	E-1086-7	Glycol System C-8636	--	--	NA
8313	T-8313	Tank 8313	1959	21,500 gal	NA
8314	T-8314	Tank 8314	1959	~~22,000 gal~~ **21,500 gal**	NA
8320	T-8320	Tank 8320	1959	~~7,000 gal~~ **6,100 gal**	NA
8321	T-8321	Tank 8321	1944	~~7,000 gal~~ **6,100 gal**	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
8322	T-8322	Tank 8322	1944	~~7,000 gal~~ **6,100 gal**	NA
8323	T-8323	Tank 8323	1959	~~22,000 gal~~ **21,500 gal**	NA
8324	T-8324	Tank 8324	1959	~~22,000 gal~~ **21,500 gal**	NA
8331	T-8331	Tank 8331	1976	~~17,000 gal~~ **17,500 gal**	NA
8332	T-8332	Tank 8332	1976	~~15,000 gal~~ **16,000 gal**	NA
8333	T-8333	Tank 8333	1959	~~22,000 gal~~ **21,500 gal**	NA
8334	T-8334	Tank 8334	1959	~~22,000 gal~~ **21,500 gal**	NA
8341	T-8341	Tank 8341	1944	~~6,300 gal~~ **6,100 gal**	NA
8343	T-8343	Tank 8343	1959	~~22,000 gal~~ **21,500 gal**	NA
8344	T-8344	Tank 8344	1959	~~22,000 gal~~ **21,500 gal**	NA
8345	T-8345	Tank 8345	1959	~~22,000 gal~~ **21,500 gal**	NA
8346	T-8346	Tank 8346	1959	~~22,000 gal~~ **21,500 gal**	NA
8350	T-8350	Tank 8350	1944	~~7,000 gal~~ **6,100 gal**	NA
8351	T-8351	Tank 8351	1944	~~7,000 gal~~ **6,100 gal**	NA
8352	T-8352	Tank 8352	1945	~~7,000 gal~~ **5,000 gal**	NA
8354	T-8354	Tank 8354	1959	~~22,000 gal~~ **21,500 gal**	NA
8355	T-8355	Tank 8355	1959	~~22,000 gal~~ **21,500 gal**	NA
8356	T-8356	Tank 8356	1959	~~22,000 gal~~ **21,500 gal**	NA
8360	T-8360	Tank 8360	1962	~~7,076 gal~~ **6,100 gal**	NA
8361	T-8361	Tank 8361	1944	~~7,076 gal~~ **6,100 gal**	NA
8362	T-8362	Tank 8362	1942	~~11,000 gal~~ **10,500 gal**	NA
8364	T-8364	Tank 8364	1959	~~22,000 gal~~ **21,500 gal**	NA
8365	T-8365	Tank 8365	1959	--	NA
8366	T-8366	Tank 8366	1959	--	NA
8371	T-8371	Tank 8371	1979	~~6,400 gal~~ **6,100 gal**	NA
8372	T-8372	Tank 8372	1948	~~7,000 gal~~ **6,100 gal**	NA
8373	T-8373	Tank 8373	1952	~~19,000 gal~~	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
				18,000 gal	
8375	T-8375	Tank 8375	1959	--	NA
8376	T-8376	Tank 8376	1959	--	NA
8380	T-8380	Tank 8380	1976	~~16,000 gal~~ **15,500 gal**	NA
8381	T-8381	Tank 8381	1976	~~16,000 gal~~ **15,500 gal**	NA
8382	~~T-8382~~ **E-1081-3**	Tank 8382	1993	~~17,000 gal~~ **15,500 gal**	~~NA~~ **C-8130**
8383	T-8383	Tank 8383	1952	~~19,000 gal~~ **18,000 gal**	NA
8390	T-8390	Tank 8390	1976	~~15,500 gal~~ **15,000 gal**	NA
8391	T-8391	Tank 8391	1976	~~15,500 gal~~ **15,000 gal**	NA
8392	T-8392	Tank 8392	1977	17,500 gal	NA
8393	T-8393	Tank 8393	1952	~~19,500 gal~~ **18,000 gal**	NA
8420	T-8420	Tank 8420	1976	~~18,000 gal~~ **18,600 gal**	NA
8433	T-8433	Tank 8433	1993	264 gal	NA
8435	T-8435	Tank 8435	1993	264 gal	NA
8517	T-8517	Tank 8517	1976	7,900 gal	NA
8520	T-8520	Tank 8520	1993	~~420 gal~~ **300 gal**	NA
8706	T-8706	Tank 8706	1993	1,250 gal	NA
8709	T-8709	Tank 8709	1993	1,250 gal	NA
8721	T-8721	Tank 8721	--	--	NA
8723	T-8723	Tank 8723	--	--	NA
8725	T-8725	Tank 8725	--	--	NA
8729	T-8729	Tank 8729	--	--	NA
8738	T-8738	Tank 8738	--	--	NA
8817	T-8817	Tank 8817	1976	~~6,400 gal~~ **7,400 gal**	NA
8835	T-8835	Tank 8835	1993	~~420 gal~~ **300 gal**	NA
L-1001	L-1001	Loading Rack L-1001	--	--	NA
L-1002	L-1002	Loading Rack L-1002	--	--	NA
L-1003	L-1003	Loading Rack L-1003	--	--	NA
L-1004	L-1004	Loading Rack L-1004	--	--	NA
L-1005	L-1005	Loading Rack L-1005	--	--	NA

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
T-8701	E-1087-1	Tank 8701	--	--	C-1087-1
--	Fugitive	Hopper for Tank 8629	--	--	NA
--	Fugitive	Funnel for T-8738	--	--	NA
--	Fugitive	Hopper for Tank 8826	--	--	NA
T-8825	Vent Return to Process	Tank 8825	--	--	NA
--	Fugitive	Funnel for T-8835	--	--	NA
C-1087-1	E-1087-1	Baghouse	--	--	NA
C-8110	E-1081-3	Caustic Scrubber	--	--	NA
C-8130	E-1081-3	Water Scrubber	--	--	NA
E-8105	E-1081-2	Condenser	--	260 ft^2 SA	NA

4.0. Source-Specific Requirements

4.1. Limitations and Standards

4.1.1. Emissions to the atmosphere from the Specialty Surfactants Plant shall be limited to the hourly and annual emission limits established in Table 4.1.1.

Table 4.1.1. Emission Limits for Specialty Surfactants Process

Emission Point ID No.	Pollutant	Emission Limits pph	Emission Limits tpy
E-1081-3, E-1081-2, E-1084-1, E-1084-2, E-1085-1, E-1085-2, E-1086-1, E-1086-3, E-1086-4, E-1088-1	SO_2 VOC Ethylene Oxide Propylene Oxide Formaldehyde Ethylene Dichloride THAP[1]	— 88.0 0.65 10.8 0.17 0.088 45.0	0.25 9.88 0.0445 0.62 0.0200 0.009 2.27
T-8313, T-8314, T-8320, T-8321, T-8322, T-8323, T-8324, T-8331, T-8332, T-8333, T-8334, T-8341, T-8343, T-8344, T-8345, T-8346, T-8350, T-8351, T-8352, T-8354, T-8355, T-8356, T-8360, T-8361, T-8362, T-8363, T-8364, T-8365, T-8366, T-8371, T-8372, T-8373, T-8375, T-8376, T-8380, T-8381, ~~T-8382~~, T-8383, T-8390, T-8391, T-8392, T-8393, T-8420, T-8433, T-8435, T-8517, T-8520, T-8706, T-8709, T-8721, T-8723, T-8725, T-8817, T-8835, L-1001, L-1002, L-1003, L-1004, L-1005	PM_{10} VOC Ethylene Oxide Formaldehyde Propylene Oxide THAP[1]	0.2 69.0 0.09 0.16 12.8 26.0	0.02 2.45 0.02 0.02 0.1209 0.17
E-1086-7	Ethylene Glycol	0.01	0.001
T-8729	No Regulated Air Pollutant	NA	NA
T-8738	No Regulated Air Pollutant	NA	NA
E-1087-1	PM_{10}	3.22	0.06

[1] THAP includes: ethylene oxide, propylene oxide, formaldehyde, ethylene dichloride, acetaldehyde, benzyl chloride, cresylic acid, 1,4-dioxane, ethylene glycol, glycol ethers, methanol, toluene, and other HAPs that could be present as trace constituents in raw materials.

[Compliance with this streamlined condition assures compliance with Sections I.4., I.5., and III.2. of CO-R27-97-17-A(94-21), Section III.3. of CO-R21-98-22, and 45CSR§§7-4.1. and -4.2.]