



DOW CHEMICAL U.S.A.

Leathering

LOUISIANA DIVISION

PLAQUEMINE, LOUISIANA 70764

504 687-4321

August 4, 1975

TO ALL LHC #2 EMPLOYEES

For your information:

As most of you know, we have been taking air samples on each classification for 8 hour periods. These samples were run in the lab for Benzene, Toluene, Xylene, Styrene, and Butadiene 1-3.

The results of the samples are:

Classification	Benzene		Butadiene-1-3		Toluene		Styrene		Xylene	
	High	Low	High	Low	High	Low	High	Low	High	Low
S. S.	0	0	5.49 ppm	0	0	0	0	0	0	0
Outside O.S.	0	0	1.13 "	0.83	0	0	0	0	0	0
Board O. S.	0	0	1.1 ppm	.07	0	0	0	0	0	0
S.O.T.	0	0	1.4 "	1.15	0	0	0	0	0	0
Furnace O. T.	1.03	0	2.03 "	1.22	0	0	0	0	0	0
Process O. T.	1.62	0	3.40	0.4	0	0	0	0	0	0
Janitor	0	0	0.7 "	0.5	0	0	0	0	0	0

TWA (time weighted average) - the average amount of material which can be tolerated for an eight - hour work shift 40 hours per week for the lifetime of the employee without causing any adverse health effect. For example, you could work in air with 20 ppm Benzene for 4 hours and in an area with 0 Benzene for 4 hours and your TWA would be 10 ppm TWA.

TLV (threshold limit value) refer to airborne concentrations of substances and represent conditions under which it is believed nearly all workers may be repeatedly exposed day after day without adverse affect.

The T.L.V. for our samples are:

Benzene	10 ppm
Toluene	100 "
Xylene	100 "
Styrene	100 "
Butadiene 1-3	1000 "

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The T.W.A. should not exceed the maximum in the T.L.V.



AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

Letter to all LHC #2 Employees cont'd)

As you can see by the samples, we are well within O.S.H.A. requirements.

J. D. Farthing
J. D. Farthing

JDF/vec

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Sound READings

BEFORE	SOUND	INSULATION	4-11-69
2D-13	A		
NORTH END	100		
SOUTH END	100		
EAST END	100		
WEST END	100		

AFTER	SOUND	INSULATION	8-7-75
2D-13	A		
NORTH END	93		
SOUTH END	92		
EAST END	94		
WEST END	94		

after sound insulation readings
taken by Willie Wyatt

SOUND READINGS

BEFORE SOUND INSULATION

FUEL GAS HEADER	PRESSURE CONTROLLER	A	
		96	

AFTER SOUND INSULATION

FUEL GAS HEADER	PRESSURE CONTROLLER	A	
		94	

0

LHC 2 Sound levels at furnaces

Sound taken at center between furnaces at
5' above ground and at ground level

Between 2 F2 & 2 F3 Silencers in place
5' 90 dBA 94 db all pass
on ground 90 dBA 94 db all pass

Between 2 F8 & 2 F9 No silencers
5' above ground 96 dBA 98 db all pass
- on ground 95.5 dBA 98 db all pass

Between 2 F6 & 2 F7 No silencers but work
overhead and south
5' above ground 97 dBA 98 db all pass
on ground 97 dBA 98 db all pass

SOUND READINGS

BEFORE SOUND INSULATION

2 D-1 A, B, C	A	ALL PASS	16K	8K	4K	2K	1K	500	250	125	63	31.5
E. END	86	90	60	70	75	79	80	87	84	76	80	79
A. N	92	95	56	69	77	82	87	92	90	77	77	79
B. N	100	103	58	71	81	86	95	102	96	85	79	79
C. N	95	98	58	72	79	84	88	95	92	78	79	78
W. END	91	93	64	76	82	85	85	90	86	78	82	78
A. S	94	97	64	76	83	86	89	94	90	79	81	79
B. S	101	103	65	77	85	89	95	102	98	85	78	79
C. S	93	96	64	74	80	83	88	94	90	78	78	79

AFTER SOUND INSULATION

D-1 A, B, C	A	ALL PASS	16K	8K	4K	2K	1K	500	250	125	63	31.5
E END	82	86	60	70	75	79	76	77	76	78	80	79
A. N	87	90	62	73	79	83	81	82	81	84	80	78
B. N	90	93	62	75	82	85	83	84	85	84	79	77
C. N	90	91	61	74	82	86	84	82	81	79	79	76
W END	90	91	62	75	81	86	84	85	79	80	81	77
A. S	91	92	63	76	83	87	86	84	81	82	80	78
B. S	93	94	65	78	85	89	87	86	84	87	80	77
C. S	89	91	64	74	81	84	83	83	81	84	82	88

E.A.S.

7/25/75

13 Butadiene (ppm)

Andre - 1.1 ✓
Chavin - 1.2 ✓
Governor - 1.7 ✓
Andre - 1.7 ✓
D. NEYLAND - 1.13 ✓
Chavin - 1.15 ✓
D. Neyland - 1.13 ✓
Evans - 1.1 ✓
J.D. FARTHING - 5.49 ✓
J.D. FARTHING - UNDETECTED -
Governor - 1.5

No Benzene, Toluene, Xylene or Styrene detected

$$\textcircled{1} \text{ 1,3 Butadiene} = \frac{0.00021 \times 20 \times 2 \times 22.4 \times 1000 \times 10}{54 \times 0.57 \times \frac{(836(52 + 9392.7))}{1000}} = 11.5 \text{ ppm}$$

$$\textcircled{2} \frac{6.1131 \times 6}{\left(\frac{173.019 - 63000}{1000} \right)} = 17175 \text{ ppm}$$

$$\textcircled{3} \frac{6.115 \times 12}{\frac{173.019 - 63000}{1000}} = 1.43 \text{ ppm}$$

$$\textcircled{4} \frac{6.113 \times 2}{\frac{173.019 - 63000}{1000}} = 0.7514 \text{ ppm}$$

$$\textcircled{5} \frac{6.115 \times 4}{\frac{173.019 - 63000}{1000}} = 0.5125$$

$$\textcircled{6} \frac{6.115 \times 30}{\frac{173.019 - 63000}{1000}} = 5.4924 \text{ ppm}$$

$$\textcircled{7} \frac{6.1131 \times 7}{\frac{173.019 - 63000}{1000}} = 1.25 \text{ ppm}$$

$$\textcircled{8} \frac{6.115 \times 7}{\frac{173.019 - 63000}{1000}} = 1.17 \text{ ppm}$$

⑨ $\frac{61131 \times 10}{78952 - 736180}$ = 1.1464

(D) ~~SECRET~~ SAMPLE WAS UNSTEEL

$$\frac{6-115154}{57067-577252} = 0.4052 \text{ FPM}$$

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JOB NO. _____

AUTH. NO. _____

CHARGE NO. _____

FILE NO. _____

SUBJECT E.A.S. Results - BIK-48

BY _____

DATE 4-23-75

SHEET _____ OF _____

CHECKED BY _____

1. Sample #1 - James Reed - O.T. Furnace side
(a) Benzene = 1.03 4-19-75 (mids)

(b) 1-3 BDE = 2.03

(c) Toluene = ~~0.2~~(d) Xylene = ~~0~~(e) Styrene = ~~0~~

2. Sample #2 - Mitchell - O.T. Furnace side
(a) Benzene = 1.00 4-20-75 (mids)

(b) 1-3 BDE = 1.22

(c) Toluene = ~~0~~(d) Xylene = ~~0~~(e) Styrene = ~~0~~

3. Sample #3 - Gustin - S.O.T.

(a) Benzene = 1.50 4-20-75 (mids)

(b) 1-3 BDE = 1.83

(c) Toluene = ~~0~~(d) Xylene = ~~0~~(e) Styrene = ~~0~~

4. Sample #4 Gustin - SOT

(a) Benzene = 1.24 4-21-75 (mids)

(b) 1-3 BDE = 1.33

(c) Toluene = ~~0~~(d) Xylene = ~~0~~(e) Styrene = ~~0~~

E. A. S. Results

4-16-75

To: J. D. Farthing
LHC #2

SHEET

OF

From data obtained from Blk 48

For:

MARTINEZ OT process side

BENZENE = 0

$$1,3 \text{ BUTADIENE} = \frac{0.00021 \times 21 \times 2 \times 20 \times 22.4}{54 \times .360 \times (322191 - 252943)} \times 1000 = 1.9 \text{ ppm}$$

$$\text{TOLUENE} = \frac{0.0016 \times 1 \times 1 \times 20 \times 22.4}{72 \times .360} \times 1000 = 0.2 \text{ ppm}$$

Xylene = 0

Styrene = 0

EVANS

OT furnace side

$$1,3 \text{ BDE} = \frac{0.00021 \times 11 \times 4 \times 20 \times 22.4}{54 \times .2656} \times 1000 = 2.89$$

$$\text{Benzene} = \frac{0.0013 \times 4 \times 1 \times 20 \times 22.4}{78 \times .2656} \times 1000 = 1.12$$

$$\text{Toluene} = \frac{0.0016 \times 1 \times 1 \times 20 \times 22.4}{92 \times .2656} \times 1000 = 0.29$$

$$\text{Xylene} = \frac{0.0065 \times 2 \times 4 \times 20 \times 22.4}{106 \times .2656} \times 1000 = 8.27$$

Styrene = 0

HARRELL

OT Process side

$$1,3 \text{ BDE} = \frac{0.00021 \times 18 \times 2 \times 20 \times 22.4}{54 \times .1843} \times 1000 = 3.40$$

$$\text{Benzene} = \frac{0.0013 \times 2 \times 2 \times 20 \times 22.4}{78 \times .1843} \times 1000 = 1.62$$

Toluene, Xylene, Styrene = 0

E. A. S. Results

To: J. D. Farthing
LHC #2

SHEET OF

4-16-75

From data obtained from Blk 48

For:

MARTINEZ OT process side

BENZENE = 0

$$1,3 \text{ BUTADIENE} = \frac{0.00021 \times 21 \times 2 \times 20 \times 22.4}{54 \times 560 \times (322191 - 252143)} \times 1000 = 1.9 \text{ PPM}$$

$$\text{TOLUENE} = \frac{0.0016 \times 1 \times 1 \times 20 \times 22.4}{72 \times 560} \times 1000 = 0.2 \text{ PPM}$$

Xylene = 0

Styrene = 0

EVANS

OT furnace side

$$1,3 \text{ BDE} = \frac{0.00021 \times 11 \times 4 \times 20 \times 22.4}{54 \times 26.56} \times 1000 = 2.89$$

$$\text{BENZENE} = \frac{0.0013 \times 4 \times 1 \times 20 \times 22.4}{78 \times 26.56} \times 1000 = 1.12$$

$$\text{Toluene} = \frac{0.0016 \times 1 \times 1 \times 20 \times 22.4}{92 \times 26.56} \times 1000 = 0.29$$

$$\text{Xylene} = \frac{0.0065 \times 2 \times 4 \times 20 \times 22.4}{106 \times 26.56} \times 1000 = 8.27$$

Styrene = 0

HARRELL

OT Process side

$$1,3 \text{ BDE} = \frac{0.00021 \times 18 \times 2 \times 20 \times 22.4}{54 \times 18.43} \times 1000 = 3.43$$

$$\text{Benzene} = \frac{0.0013 \times 2 \times 2 \times 20 \times 22.4}{78 \times 18.43} \times 1000 = 1.62$$

Toluene, Xylene, Styrene = 0

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