

CELL SERV



April 8, 1974

CELL SERVICE ENVIRONMENTAL HEALTH SURVEY

The Environmental Health Survey taken in the Cell Service area showed that we are in compliance with OSHA regulations for exposure to chemicals and asbestos fibers in the air. Also, several problem areas were pointed out. One such area is the room where cathodes are acidized, in which we presently require employees to wear respirators to protect them from HCl fumes. In the design for the new Cell Service facility, an improved fume hood system is being engineered to remove HCl vapors closer to their source and eliminate the need for respirators.

Another problem area is noise, especially when sawing anodes out of the new Derakane cells. A new type of saw is presently being fabricated which should solve this problem and bring noise levels to within acceptable limits. Another high noise job is operating a chipping gun while repairing concrete chlorine cells. We are presently trying to find a quieter tool for this operation, but so far our efforts have been unsuccessful. When the changeover to Derakane cells is complete, the need for chipping guns will be greatly reduced or eliminated. In the meantime, we require hearing protectors in the repair area when these jobs are performed. The cathode washing area is another hearing protection area due to the noisy equipment in this operation. This problem will also be engineered out in the design of the new facility.

ST0175002

We are working with R. & D. to improve the sampling and analysis procedures for some of the chemicals used in our operation, especially Diethylenetriamine, a catalyst for epoxy resin. Also, an improved asbestos handling system is being engineered to further reduce employee exposure to this material. Our goal is to eliminate the need for protective devices such as respirators and hearing protectors in our operation.

R. Wittmann
Cell Service
Louisiana Division

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R E S T R I C T E D

For Use of Dow Employees On

ENVIRONMENTAL HEALTH SUMMARY
CHEMICAL EXPOSURE DATA
LOUISIANA DIVISION

SUBJECT: Cell ServiceJOB CLASSIFICATION: Unloading Asbestos DATE OF THIS REPORT: 8-1-73HOXCAR

CHEMICAL NAME	STANDARD (TLV)	CEILING	SAMPLE(S) RANGE		NUMBER OF SAMPLES TAKEN	SAMPLE PERIOD DATE(S)	TWA
			HIGH	LOW			
ASBESTOS	5 fibers/54/cc		0.049	0.047	2	11-1-73	0.048
$E_m = \frac{X \text{ TWA}}{X \text{ Standard}} + \frac{Y \text{ TWA}}{Y \text{ Standard}} + \frac{Z \text{ TWA}}{Z \text{ Standard}}$			<(1) Acceptable >(1) Unacceptable				
						Em - Equivalent Exposure -> Mixture	0.0096

Exposure to noise (A scale) for this job classification - Equivalent Exposure Rate 58%

Standard(s) TWA, Ranges & Ceilings to be reported in PPM Vol. if a gas or vapor, or mg/m³ if a dust or mist. The exception is asbestos, which is to be expressed as number of fibers greater than 5 micron/cc of air sampled.

Original: Medical Department, Bldg. 2303

cc: Department File

cc: Environmental Health Committee, Bldg. 2304

 10/6/73
 10/6/73

DOM 03675

ST0175005

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ENVIRONMENTAL HEALTH SUMMARY
CHEMICAL EXPOSURE DATA
LOUISIANA DIVISION

DEPARTMENT: Cell Service JOB CLASSIFICATION: Drawing Hookup DATE OF THIS REPORT: 8-1-73

CHEMICAL NAME	STANDARD (TLV)	CEILING	SAMPLE(S) RANGE		NUMBER OF SAMPLES TAKEN	SAMPLE PERIOD DATE(S)	TWA
			HIGH	LOW			
Asbestos	5 fibers/cc 75u		0.67	0.03	5	10-72	0.32
CAUSTIC Fumes	2 mg/m ³	4 mg/m ³	0.43	0.24	4	9-73	0.34
Asbestos (Rechecked)	5 fibers/cc 75u		1.004	0.092	4	8-10-73	0.0263
$Em = \frac{X \text{ TWA}}{X \text{ Standard}} + \frac{Y \text{ TWA}}{Y \text{ Standard}} + \frac{Z \text{ TWA}}{Z \text{ Standard}} =$			<(1) Acceptable >(1) Unacceptable			Em - Equivalent Exposure - Mixture	0.234

Exposure to noise (A scale) for this job classification - Equivalent Exposure Rate 48 dBA

Standard(s) TWA, Ranges & Ceilings to be reported in PPM Vol. if a gas or vapor, or mg/m³ if a dust or mist. The exception is asbestos, which is to be expressed as number of fibers greater than 5 micron/cc of air sampled.

Original: Medical Department, Bldg. 2303

cc: Department File

cc: Environmental Health Committee, Bldg. 2304

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DOM 03676

ST0175006

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For Use of Dow EmployeesENVIRONMENTAL HEALTH SUMMARY
CHEMICAL EXPOSURE DATA
LOUISIANA DIVISION

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DEPARTMENT: Gen ServiceJOB CLASSIFICATION: Cutting Asbestos Rope DATE OF THIS REPORT: 8-1-73

CHEMICAL NAME	STANDARD (TLV)	CEILING	SAMPLE(S) RANGE		NUMBER OF SAMPLES TAKEN	SAMPLE PERIOD DATE(S)	TWA
			HIGH	LOW			
Asbestos	5 fibers/cc > 5K		1.27	0.16	3	10-72	0.64
$Em = \frac{X \text{ TWA}}{X \text{ Standard}} + \frac{Y \text{ TWA}}{Y \text{ Standard}} + \frac{Z \text{ TWA}}{Z \text{ Standard}}$		<(1) Acceptable >(1) Unacceptable					
						Em - Equivalent Exposure -> Mixture	0.128

Exposure to noise (A scale) for this job classification - Equivalent Exposure Rate 28%Standard(s) TWA, Ranges & Ceilings to be reported in PPM Vol. if a gas or vapor, or mg/m³ if a dust or mist. The exception in asbestos, which is to be expressed as number of fibers greater than 5 micron/cc of air sampled.

Original: Medical Department, Bldg. 2303

cc: Department File

cc: Environmental Health Committee, Bldg. 2304

10/2/73
8-28-73

RESTRICTED
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DEPARTMENT: Cell Service JOB CLASSIFICATION: Deputying Director DATE OF THIS REPORT: 8-1-73

CHEMICAL NAME	STANDARD (TLV)	CEILING	SAMPLE(S) RANGE		NUMBER OF SAMPLES TAKEN	SAMPLE PERIOD DATE(S)	TWA
			HIGH	LOW			
ASBESTOS	5 fibres/cc > 5M		0.241	0.07	3	9-10-72	0.16
CAUSTIC FUMES	2 mg/m ³	4 mg/m ³	0.43	0.24	4	9-73	0.3
ASBESTOS (FIBROUS)	5 fibres/cc > 5M		0.038	0.010	4	9-10-73	0.02
$Em = \frac{X \text{ TWA}}{X \text{ Standard}} + \frac{Y \text{ TWA}}{Y \text{ Standard}} + \frac{Z \text{ TWA}}{Z \text{ Standard}}$			<(1) Acceptable >(1) Unacceptable		Em - Equivalent Exposure - Mixture		

Exposure to noise (A scale) for this job classification - Equivalent Exposure Rate

Standard(s) TWA, Ranges & Ceilings to be reported in PPM Vol. if a gas or vapor, or mg/m³ if a dust or mist. The exception is asbestos, which is to be expressed as number of fibers greater than 5 micron/cc of air sampled.

cc: Environmental Health Committee, Bldg. 2304

PCV/CD
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