



DOW CHEMICAL U.S.A.

REV
8(E)

Building B-101

TEXAS OPERATIONS
FREEPORT, TEXAS 77541

R&S 140294

OCCUPATIONAL HEALTH SUMMARY REPORT

LOCATION: ETHYLENEAMINES
PERIOD COVERED: October 23 - December 7, 1990

MEDICAL:

C. K. Browdy M.D.
C. K. Browdy, M.D.
Occupational Health Associate

1-2-91
Date

INDUSTRIAL HYGIENE:

J. L. Bell
J. L. Bell
Industrial Hygiene Specialist

1-2-91
Date

APPROVED:

J. H. Saunders
J. H. Saunders, M.D.
Director, Occupational Health

1-2-91
Date

REVIEWED:

J. M. Giles
J. M. Giles
Superintendent

1-14-91
Date

cc: D. Cragar
R. Egedahl, M.D.
J. C. Renfro, Jr.
Summary File



AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

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Performance**
Means More At Dow

OFFICE OF THE ATTORNEY GENERAL
STATE OF NEW YORK
Office of the State Comptroller
Western District of New York

OCCUPATIONAL HEALTH SUMMARY REPORT

This is a voluntary participation program. The group population is 36. Fourteen individuals have current information and were not examined at this time. Twenty-two individuals were examined between October 23, 1990 and December 7, 1990 for a 100% participation rate.

The Chemical and Physical Agent Inventory (CPAI) for the Ethyleneamines plant shows that the chemical of greatest concern is vinyl chloride. The Control C Operators are followed on the Vinyl Chloride Medical Surveillance Requirement, which conforms with the OSHA Vinyl Chloride Standard. The remaining job classifications are followed on the periodic core examination.

The 1988 Noise Survey is summarized in I. H. Report No. A38-3367N. The eight-hour time-weighted average exposures are less than 85 decibels on the A-scale. These job classifications do not need to be included in the Hearing Conservation Program.

The 1983-1986 Industrial Hygiene monitoring data for ethylene dichloride, vinyl chloride, ethylenediamine, diethylenetriamine, triethylenetetramine, and tetraethylenepentamine are summarized in I. H. Report No. A38-2901C. Employee eight-hour time-weighted average exposures were well below the Industrial Hygiene Guide (IHG) or were judged to be acceptable where an IHG did not exist.

There are six TSCA 8(d) chemicals present. They are diethylenetriamine, toluene, isopropyl alcohol, ethylene dichloride, pyridine, and nitrobenzene. Monitoring data is described above for diethylenetriamine and ethylene dichloride. Pyridine, toluene, isopropyl alcohol, and nitrobenzene are used as laboratory chemicals and are present in small amounts.

There were nineteen audiograms done as part of the routine periodic core examination. There were two standard threshold shifts as defined by the OSHA Noise Standard. These individuals are not in the Hearing Conservation Program.

Two individuals have medical limitation of respirator usage based on initial screening of the medical examination data. Please see the attached list for medical limitation of respirator usage. If these medical restrictions interfere with an employee's job requirements, further evaluation at the Occupational Health Department should be arranged to fully assess the need for medical limitation of respirator usage.

R&S 140295

The liver is considered the main target organ for vinyl chloride. Four individuals of the 22 tested had minimal elevations of one liver enzyme of the five liver enzymes we test in each individual. This is considered an expected pattern in a group of this size and does not suggest any special toxic effect influencing the results of this group.

There were thirteen core examinations done. Individuals with life-style factors amenable to medical or dietary intervention include the following: seven smokers, fifteen individuals who are overweight, and twelve individuals with elevated cholesterol levels. Please contact the Up-With-Life Program (X-4334) for assistance in modification of these life-style risk factors.

Attachment

Produced Pursuant

NY 4337

1984

Produced Pursuant

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ATTACHMENT

January 2, 1991

MEDICAL LIMITATION OF RESPIRATOR USAGE

The following two individuals may wear respirators for escape only:

The following 34 individuals have no medical limitation of respirator usage:

1. [illegible]
2. [illegible]
3. [illegible]
4. [illegible]
5. [illegible]
6. [illegible]
7. [illegible]
8. [illegible]
9. [illegible]
10. [illegible]
11. [illegible]
12. [illegible]
13. [illegible]
14. [illegible]
15. [illegible]
16. [illegible]
17. [illegible]
18. [illegible]
19. [illegible]
20. [illegible]
21. [illegible]
22. [illegible]
23. [illegible]
24. [illegible]
25. [illegible]
26. [illegible]
27. [illegible]
28. [illegible]
29. [illegible]
30. [illegible]
31. [illegible]
32. [illegible]
33. [illegible]
34. [illegible]

R&S 140297