



DOW CHEMICAL U.S.A.

Mark
REV 8/85

January 6, 1983

LOUISIANA DIVISION

P. O. BOX 150

PLAQUEMINE, LOUISIANA 70764-0150

504 389-8000

Gerry Wheeler

cc: Arnold Seidule
Joe Granier
Terry Campbell

Introduction:

Attached is the 1982 Environmental Health Survey and the 1982 Area Noise Survey for PMS. These surveys are being circulated to the PMS plant personnel for training in:

1. The consequences of overexposure to chemical and physical agents in the plant.
2. The results of the employee exposure measurements made in 1982.
3. The control measures available to minimize employee exposures.

Conclusions:

1. Due to the large number of high noise areas in the material transfer systems of the warehouses:
 - a. The hearing conservation program should continue to prevent possible overexposure to noise.
 - b. Engineering controls should be investigated to reduce the number of high noise sources.
2. None of the job classifications that were monitored for noise exposure had an average noise dose above the permissible noise dose.
3. Due to the high concentrations of non-asbestos form talc detected in the breathing zone samples of personnel working in the CPE talc room:
 - a. The dust mask requirements for th talc room should be strictly enforced to prevent overexposure to non-asbestos from talc.
 - b. The new weigh feeder system should be installed as soon as possible to reduce the amount of talc that is being released into the room.
4. None of the personnel breathing zone samples at Poly A Warehouse that were monitored for nuisance dust exposure exceeded the threshold limit value (TLV).

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Plastic Department Industrial Hygiene
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December 27, 1982

Jim Cox
J. W. Potts
Les Loubiere
Carl Chemin

cc: H. Hebert
A. Cedotal
J. Mahaffey

ENVIRONMENTAL HEALTH SURVEY

Consequences of Overexposure to Noise

Prolonged and repeated exposures to noise levels above 90 decibels may cause severe damage to the nerves in the inner ear. When this happens, hearing is first reduced in the high frequency range and will eventually be reduced in the normal speech range.

Preventing Hearing Loss

Ear plugs and ear muffs are two types of hearing protection available to you. Both types reduce noise exposure significantly to prevent hearing loss. Keep in mind as with all protective equipment, hearing protection is useful only if it is worn and worn properly.

It is mandatory that ear protection be worn in any areas that have noise levels exceeding 90 decibels. "Ear Protection Required" signs are posted in these areas. Also the area noise surveys conducted this year are at the end of this report showing these areas.

REMEMBER: Hearing loss caused from prolonged exposure to noise above 90 decibels is gradual and usually permanent. Don't lose your hearing, use the ear protection.

Potential Exposure to Noise

Twenty-two (22) individuals were sampled for noise exposure using noise dosimeters. The noise dosimeters integrate the noise levels over time to give a percentage of allowable noise exposure. For example, 90 db for 8 hours would equal 100%.

POLY A/B WAREHOUSE

<u>Job</u>	<u>Number of Samples</u>	<u>Average Potential Exposure</u>
Laborer	1	46%
O.T. Carloading	6	47%
S.O.T.	2	15%
Shift Supervisor	1	24%

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CPE WAREHOUSE

<u>Job</u>	<u>Number of Samples</u>	<u>Average Potential Exposure</u>
Laborer	3	22%

POLY C WAREHOUSE

<u>Job</u>	<u>Number of Samples</u>	<u>Average Potential Exposure</u>
OTT	1	22%
Laborer	2	71%
O.T. Carloading	3	61%
Packaging Specialist	2	30%

Potential Exposure to Talc at CPE Warehouse

When handling talc or working in the talc room, dust masks should be worn to prevent overexposure to non-asbestos form talc. The Threshold limit value (TLV) or exposure limit for talc is $3\text{mg}/\text{m}^3$ respirable dust and $6\text{mg}/\text{m}^3$ non-respirable dust. The TLV was set to prevent any change in the lung function.

Four samples were run on CPE O.T.'s while working in the talc room. The average potential exposure was $24.7\text{mg}/\text{m}^3$ respirable dust and $29.5\text{mg}/\text{m}^3$ non-respirable dust.

A new weigh feeder system has been ordered for the talc room which should reduce the potential for overexposure to talc substantially.

Potential Exposure to polyethylene nuisance dusts while cleaning filters at Poly A/B Warehouse

The consequences of overexposure for nuisance dust are minor irritations to the eyes and skin from mechanical abrasion. It may also cause irritation to the nose and throat in very dusty atmospheres. If the overexposure is for a long period of time, some of the dust may be deposited in the lungs.

A dust mask should be worn to prevent inhaling excessive amounts of the dust while cleaning filters.

The TLV for nuisance dust is $10\text{mg}/\text{m}^3$ total dusts (respirable and non-respirable). One sample was run on the O.T. Carloader while cleaning the filters. The potential exposure was less than $1.9\text{mg}/\text{m}^3$ total dust.

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Plastics Department
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Attachments - Area Noise Surveys

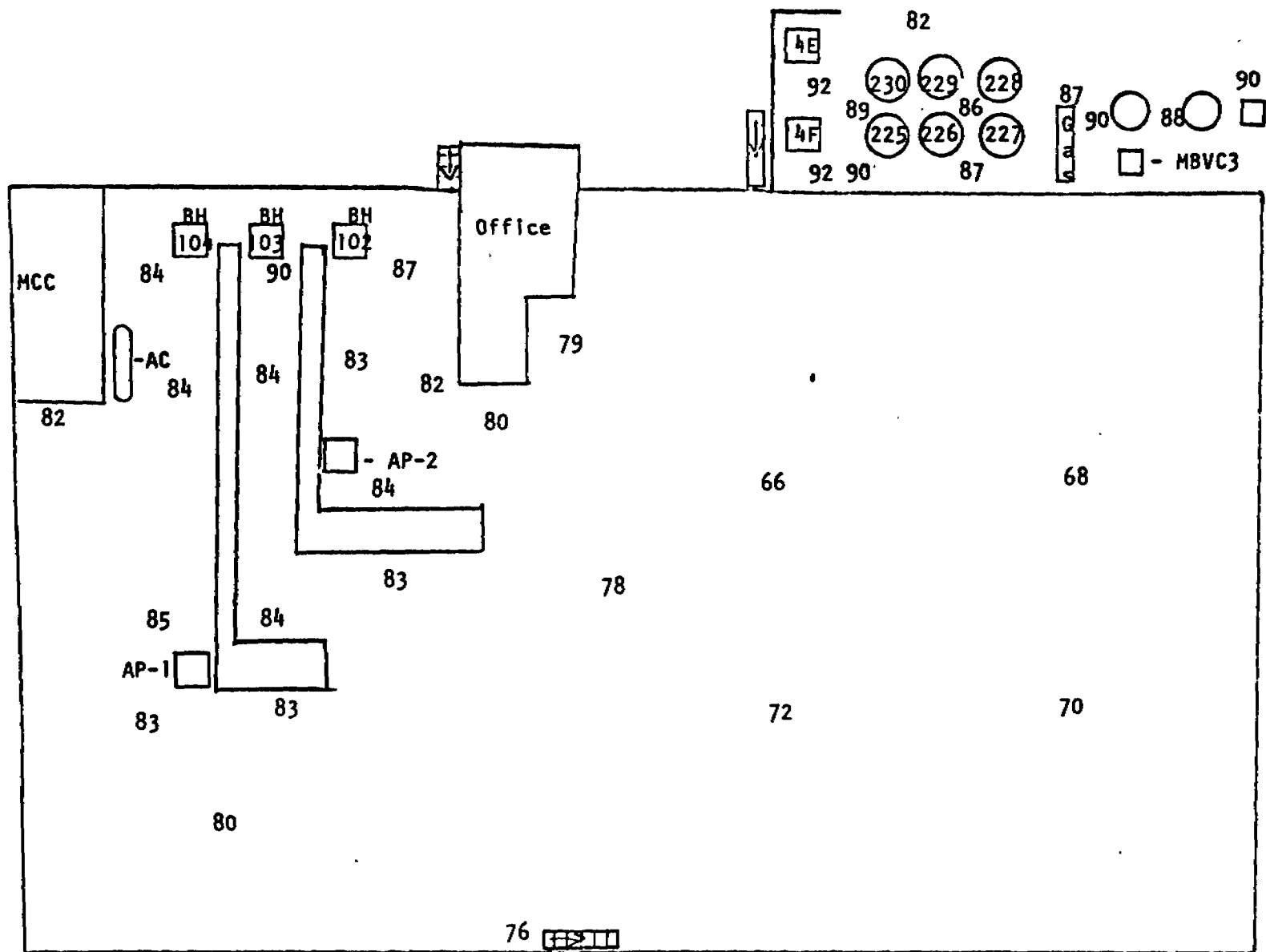
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POLY A/POLY B WAREHOUSE



[illegible]

310 309 308

89 92 96

311 4001 95

90 90 92

411 419 409 408

Diagram showing the arrangement of six circles with numbers inside and around them. The circles are arranged in two rows of three. The top row has circles with numbers 301, 316, and 317. The bottom row has circles with numbers 315 and 314. The circles are surrounded by numbers 94, 93, 94, 93, 95, 89, 90, and 87.

Sample Bldg
87

POLY A/POLY B WAREHOUSE

H-7

H-6

H-5

H-4

T201
A

T101
A

BL 1A
BL 2A

D70

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SHOP

76
H-3

H-2

MCC

85
T 31

R 102B

R 102B

T 104A

T 105A

EP 205

EP 105

OFFICE
TALC ROOM

76

77

82

NEW
SCRUBBER

D40

C103

C 103

C 104B

T100B

D100A

86

FBD 106

90

92

94

89

B

80

79

SW 651

79

89

P

651

82

603B

84

603A

88

86

86

86

86

86

86

86

86

86

86

86

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86

86

85

651

80

79

SW 651

79

89

P

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603B

84

603A

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SW 651

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603B

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SW 651

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603B

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603A

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SW 651

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SW 651

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603B

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SW 651

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603B

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602A

602B

601A

601B

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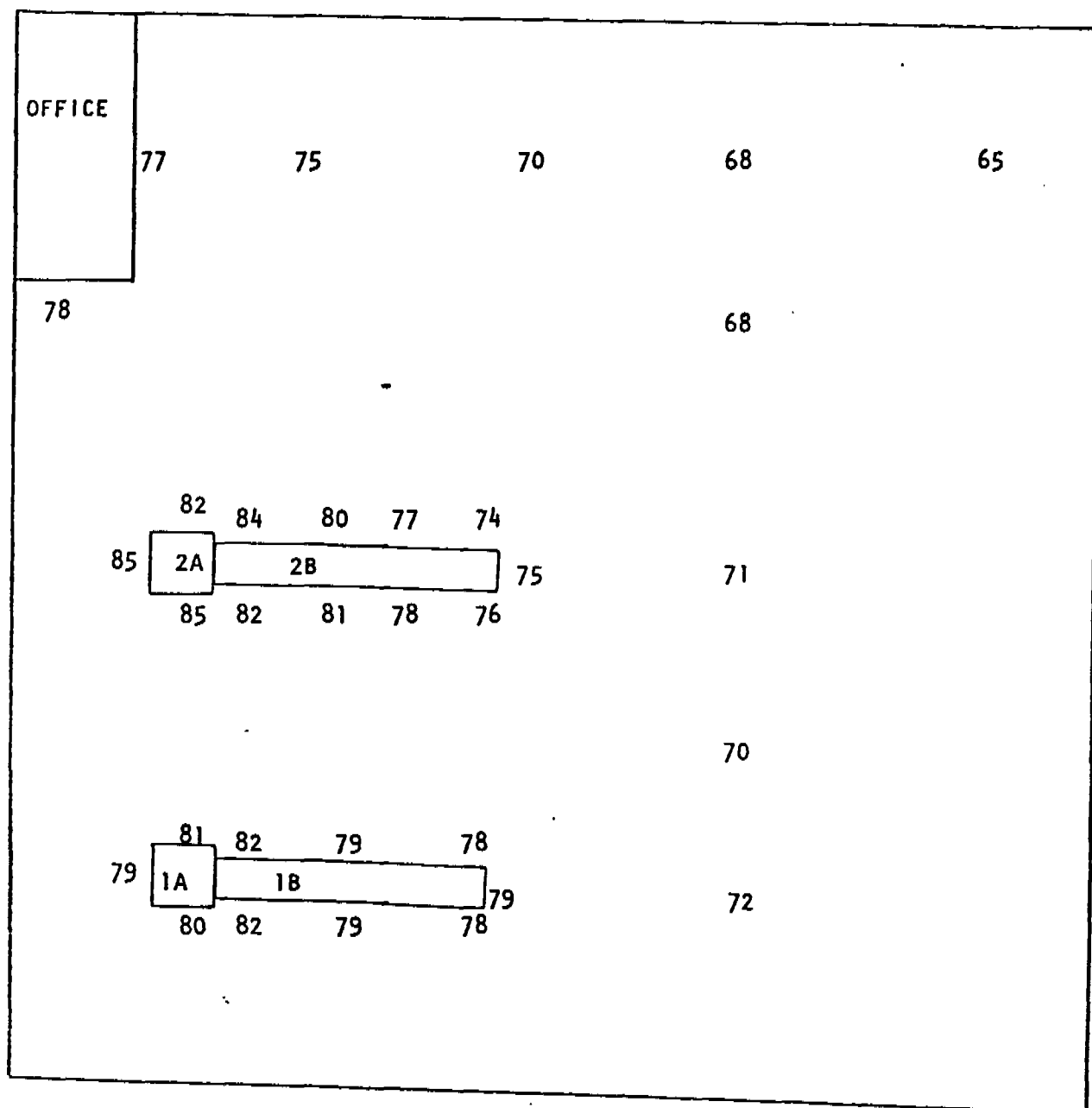
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POLY C WAREHOUSE AREA NOISE LEVELS IN db(A)

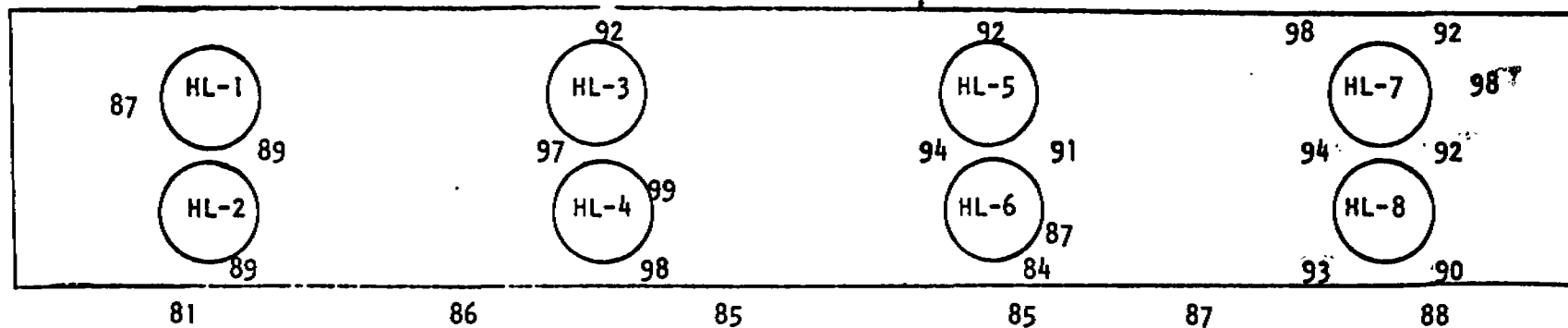


Towmotor noise level varied from 80 db(A) idle to 94 db(A) (Accel).

POLY C WAREHOUSE

HOPPER CAR LOADING

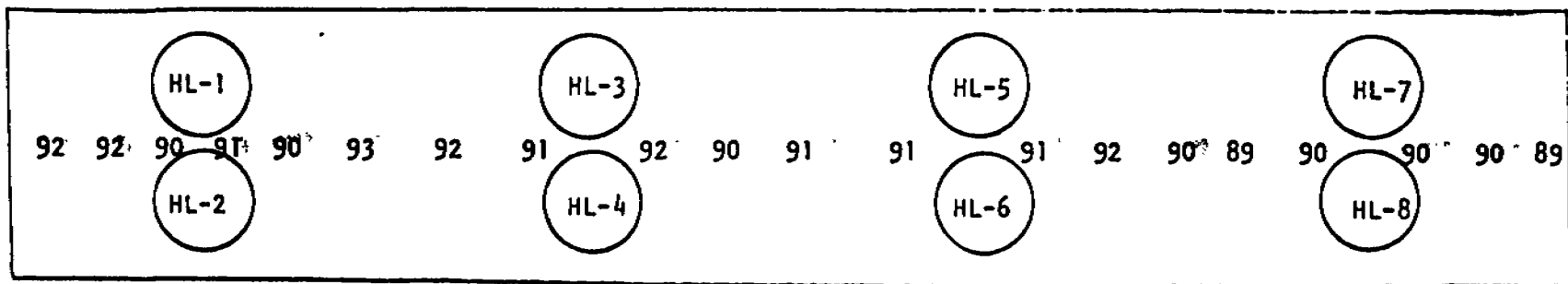
ROOF



POLY C WAREHOUSE

HOPPER CAR UNLOADING

SECOND LEVEL



POLY C WAREHOUSE

HOPPER CAR LOADING -- GROUND LEVEL

88	91	88	90	88	89	87	87	87	88	89	88	88	90	89	87	86				
		HL-1				HL-3				HL-5					HL-7					
87	89	89	90	89	89	92	91	90	90	87	87	88	88	89	87	88	88	86	86	87
		HL-2				HL-4				HL-6					HL-8					
86	88	90	87	88	88	90	89	89	87	87	88	90	88	88	86	87	86	88		

PLEASE HAVE EACH SHIFT EMPLOYEE SIGN AND DATE THIS SHEET FOR VERIFICATION

EACH EMPLOYEE HAS READ THIS MATERIAL:

[illegible]

PLEASE RETURN THIS COMPLETED FORM TO MARK RYLAND - BUILDING 807



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LOUISIANA DIVISION

JOB NO. _____
CHARGE NO. _____
SUBJECT _____

AUTH. NO. _____
FILE NO. _____
BY _____

DATE 2/26/92

SHEET _____ OF _____ CHECKED BY GLMeier

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28

Note to PMS 1982 file

PMS raw data sheets for 1982, 83, 84, 85, 86
are stored in the 1986 PMS Historical
Record Box.

Gary Meier

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