



DOW CHEMICAL U.S.A.

OCCUPATIONAL HEALTH
LOUISIANA DIVISION
PLAQUEMINE, LOUISIANA 70764

December 31, 1990



Accredited by
Accreditation Association
for Ambulatory
Health Care, Inc.

J. M. Lanham, 1803 Building, MIDLAND
R. H. Fike, 1803 Building, MIDLAND

xc: G. L. Meier, B-3502E, LA DIVISION
B. A. Heinze, B-3502E, LA DIVISION
J. M. Paul, B-3502E, LA DIVISION
G. W. Olsen, 1803 Building, MIDLAND

Attached is a copy of the plant report for the Vinyl II plant. This information was presented at the Health Team Review, and a copy of this report has been submitted to the plant superintendent. If you have any questions or suggestions, please let us know.


M. F. Currier, M. D.
Health Services Department
Louisiana Division


G. D. Kusch, M. D.
Health Services Department
Louisiana Division

jyl

Attachments

R&S148347



AN OPERATING UNIT OF THE DOW CHEMICAL COMPANY

**Quality
Performance**
Means More At Dow.

VINYL II HEALTH TEAM REVIEW 1990

MEDICAL DATA

Plant:	Vinyl II
IH Number:	0661
Period Reviewed:	1990
Date of Review:	December 19, 1990
Reviewed by:	

Background Information:

The Vinyl II plant produces vinyl chloride monomer (VCM). The feedstock is ethylene dichloride (EDC) which is received from the EDC plant and is also produced in the Vinyl II plant. The EDC is cracked in a series of furnaces to produce VCM which then goes through a series of distillation columns to be purified. During the cracking process, HCl is produced. The HCl is used along with oxygen and ethylene in the oxy-chlor portion of the plant to make EDC. The VCM is stored in spheres and is shipped by both railcar and ship. The railcar loading area utilizes closed dome loading. Employees in the Vinyl II plant have yearly chemistry profiles and audiograms, and every two years they have a periodic medical surveillance exam. In 1990 they had only the chemistry profiles and audiograms.

Hazards Review:

Review of the CPAI shows that the following TSCA 8(d) chemicals are present in the Vinyl II plant: hydroquinone, chlorothene, ethylene dichloride, 1,1 dichloroethane, 1,1,2 trichloroethane, and ethyl chloride. One employee has a priority rating of 2 for vinyl chloride. There are multiple areas of the plant with noise levels above 90 dB. With the exception of a small number of posted areas, hearing protection is required throughout the plant. The applicable Dow Medical Surveillance Requirements are vinyl chloride, EDC, and noise.

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Health Surveillance Statistics:

Dow:

Eligible:	59	
Participating:	57	97%
Males:	52	
Females:	5	

Contractors:

Eligible:	18	
Participating:	17	94%
Males:	17	
Females:	0	

Dow Employees:

Review of the medical surveillance results did not reveal any abnormalities which were felt to be related to the workplace. Four employees (7%) had SGPT values above the reference range. Each of these employees was evaluated individually, and nothing was found to suggest that these abnormalities were related to the workplace. Records of these evaluations are on file. There were no standard threshold shifts in hearing. Fifteen employees (26%) had an average hearing loss in one or both ears of greater than 25dB. Average cholesterol level was 187 mg.%, with 61% of employees below 200 mg.%, 32% between 200 and 239 mg.%, and 7% at 240 mg% or above. Each of these categories showed a decline when compared to the results in 1989. Sixteen employees (28%) were greater than 10% overweight.

Contractor Employees:

Review of the medical surveillance results did not reveal any abnormalities which were felt to be related to the workplace. Three contractors had SGPT values above the reference range. Each of these was individually evaluated, and there was no evidence of a relationship to the workplace. Records of these evaluations are on file. There were no standard threshold shifts in hearing. Nine contractors (53%) had an average hearing loss in one or both ears of greater than 25dB.

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Remarks:

The participation rate for both Dow employees and contractor employees was above 90%, but we should continue to encourage all employees to come for medical surveillance. Industrial hygiene monitoring for vinyl chloride and EDC takes place with particular attention to those jobs with the greatest likelihood of exposure such as taking samples. Changes have been made to several pumps which have reduced their noise levels to below 90dB. Although there were no standard threshold shifts, a substantial number of both Dow and contractor employees have hearing loss of greater than 25dB. We should continue to encourage the proper use of hearing protection and continue to strive to reduce the noise at its source whenever possible. Personal noise dosimetry monitoring will be done in the coming year.

We encourage you to share this medical surveillance information with the employees in the Vinyl II plant. If you have any questions or would like one of us to present this information to the employees, please give us a call.

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R&S 148350

DOW EMPLOYEES	1990		1989	
Eligible	59		46	
Participating	57	97%	44	96%
Male	52		41	
Female	5		3	
Age	36		37	
Height	69		69	
Weight	182		181	
Greater than 10% overweight	16	28%		
Blood Pressure				
Greater than 140/90	7	12%		
SGPT (Liver Enzyme)	28		23	
Greater than reference range	4	7%	0	
Hemoglobin			14.9	
Less than 14			5	12%
White Blood Count			7000	
Less than 4000			0	
Standard Threshold Shifts	0		0	
Hearing loss greater than 25 dB	15	26%	12	27%
Cholesterol	187		192	
less than 200	35	61%	22	50%
200-239	18	32%	17	39%
greater than 239	4	7%	5	11%

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CONTRACTOR EMPLOYEES	1990		1989	
Eligible	18		8	
Participating	17	94%	8	100%
Male	17		8	
Female	0		0	
Age	45		34	
Height	71		69	
Weight	181		194	
Greater than 10% overweight	4	24%		
Blood Pressure				
Greater than 140/90	1	6%		
SGPT (Liver Enzyme)	33		32	
Greater than reference range	3	18%	1	13%
Hemoglobin			15.4	
Less than 14			0	
White Blood Count			7300	
Less than 4000			0	
Standard Threshold Shifts	0		0	
Hearing loss greater than 25 dB	9	53%	6	75%
Cholesterol	189			
less than 200	11	65%		
200-239	5	29%		
greater than 239	1	6%		

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R&S148352

Cellulose Production Plant

Safety and Environmental Day

Learning Center July 14, 1992

Attendance Signature Sheet

Topics Covered: Fenwal bottle installation, Shiftwork education, Division spill history, S-312 hot work, S-316 Electrical safety, S-303 Danger red tag, Chlorine, Asbestos, Vinyl Update.

Please sign sheet using legal signature, date, and master number

Name	Master #	Date
		7-14-92
		7-14-92
		7-14-92
		7-14-92
		7-14-92
		7-14-92
		7/14/92
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Attendance Signature Sheet

Topics Covered: Fenwal bottle installation, Shiftwork education, Division spill history, S-312 hot work, S-316 Electrical safety, S-303 Danger red tag, Chlorine, Asbestos, Vinyl Update.

Please sign sheet using legal signature, date, and master number

[illegible]

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R&S 148355

**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

*"Day"
Personal*

PLANT/DEPARTMENT:	<i>Chlor-Alkali</i>
INSTRUCTOR:	
DATE:	<i>7/17/12</i>

TYPE OF TRAINING CONDUCTED	MARK "X" ALL THAT APPLY
NEW EMPLOYEE DIVISION INDOCTRINATION	
NEW EMPLOYEE AREA SPECIFIC HAZARD COMMUNICATION	
TRANSFER EMPLOYEE HAZARD COMMUNICATION	
NEW CHEMICAL OR HAZARD TRAINING	
NON-ROUTINE TASKS TRAINING	
ANNUAL HEALTH HAZARD TRAINING	
COMMUNICATION OF EXPOSURE MONITORING DATA	
OTHER TRAINING (DESCRIBE) <i>Chlor-Alkali Unit Line (DIVISION)</i>	

BRIEFLY DESCRIBE THE TRAINING INCLUDING: AGENDA/COURSE OUTLINE, VIDEOS SHOWN, PAMPHLETS DISTRIBUTED, OR QUIZ/TEST. ATTACH COPY OF THE AGENDA/COURSE OUTLINE WITH THIS SHEET FOR INCLUSION IN THE ANNUAL REPORT BACKUP PACKAGE.

LIST THE FOLLOWING INFORMATION FOR THE CHEMICAL AND PHYSICAL AGENTS WHICH WERE REVIEWED:

CHEMICAL/PHYSICAL AGENT	MSDS, TIME, CETA, PICCS	REVISION DATE

NOTE: Have attendees sign IN INK on next page. Send documentation to the Industrial Hygiene Department, 3502-W, at year end for inclusion in the Annual Report Backup Package for the 75 year retention period.

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**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

	Attendees Name (in ink)	Master/S.S. Number	Date
1.			7/14/92
2.			7/14/92
3.			7/23/92
4.			8/3/92
5.			8/3/92
6.			8/6/92
7.			8/10/92
8.			8/10/92
9.			8-11-92
10.			8-12-92
11.			8-14-92
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**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

"H" Slip

PLANT/DEPARTMENT: <u> </u>	
INSTRUCTOR: <u> </u>	
DATE: <u> </u> TIME (DURATION OF TRAINING) <u> </u>	

TYPE OF TRAINING CONDUCTED	MARK "X" ALL THAT APPLY
NEW EMPLOYEE DIVISION INDOCTRINATION	
NEW EMPLOYEE AREA SPECIFIC HAZARD COMMUNICATION	
TRANSFER EMPLOYEE HAZARD COMMUNICATION	
NEW CHEMICAL OR HAZARD TRAINING	
NON-ROUTINE TASKS TRAINING	
ANNUAL HEALTH HAZARD TRAINING	
COMMUNICATION OF EXPOSURE MONITORING DATA	
OTHER TRAINING (DESCRIBE) <u> Divisional Guidelines (Division) </u>	

BRIEFLY DESCRIBE THE TRAINING INCLUDING: AGENDA/COURSE OUTLINE, VIDEOS SHOWN, PAMPLETS DISTRIBUTED, OR QUIZ/TEST. ATTACH COPY OF THE AGENDA/COURSE OUTLINE WITH THIS SHEET FOR INCLUSION IN THE ANNUAL REPORT BACKUP PACKAGE.

LIST THE FOLLOWING INFORMATION FOR THE CHEMICAL AND PHYSICAL AGENTS WHICH WERE REVIEWED:

CHEMICAL/PHYSICAL AGENT	MSDS, TIME, CETA, PICCS MASTER NO.	REVISION DATE

NOTE: Have attendees sign IN INK on next page. Send documentation to the Industrial Hygiene Department, 3502-W, at year end for inclusion in the Annual Report Backup Package for the 75 year retention period.

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**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

Attendees Name (in ink)	Master/S.S. Number	Date
1.		8-7-92
2.		8-7-92
3.		8/7/92
4.		8/7/92
5.		8-7-92
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R&S148360

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**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

PLANT/DEPARTMENT: <u>1.1.1.1</u>	
INSTRUCTOR: <u>1</u>	
DATE: <u>7/14/92</u> TIME (DURATION OF TRAINING)	

TYPE OF TRAINING CONDUCTED	MARK "X" ALL THAT APPLY
NEW EMPLOYEE DIVISION INDOCTRINATION	
NEW EMPLOYEE AREA SPECIFIC HAZARD COMMUNICATION	
TRANSFER EMPLOYEE HAZARD COMMUNICATION	
NEW CHEMICAL OR HAZARD TRAINING	
NON-ROUTINE TASKS TRAINING	
ANNUAL HEALTH HAZARD TRAINING	
COMMUNICATION OF EXPOSURE MONITORING DATA	
OTHER TRAINING (DESCRIBE) <u>Review Asbestos Guideline (DIVISION)</u>	

BRIEFLY DESCRIBE THE TRAINING INCLUDING: AGENDA/COURSE OUTLINE, VIDEOS SHOWN, PAMPHLETS DISTRIBUTED, OR QUIZ/TEST. ATTACH COPY OF THE AGENDA/COURSE OUTLINE WITH THIS SHEET FOR INCLUSION IN THE ANNUAL REPORT BACKUP PACKAGE.

LIST THE FOLLOWING INFORMATION FOR THE CHEMICAL AND PHYSICAL AGENTS WHICH WERE REVIEWED:

CHEMICAL/PHYSICAL AGENT	MSDS, TIME, CETA, PICCS	REVISION DATE

NOTE: Have attendees sign IN INK on next page. Send documentation to the Industrial Hygiene Department, 3502-W, at year end for inclusion in the Annual Report Backup Package for the 75 year retention period.

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R&S 148361

**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

	Attendees Name (in ink)	Master/S.S. Number	Date
1.			7/16/92
2.			7/16/92
3.			7/16/92
4.			7/16/92
5.			7/17/92
6.			7/16/92
7.			7/25/92
8.			7-29-92
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**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

C Shift

PLANT/DEPARTMENT: <i>Cellulose</i>	
STRUCTOR:	
DATE: <i>7/16/92</i>	TIME (DURATION OF TRAINING) <i>30 min.</i>

TYPE OF TRAINING CONDUCTED	MARK "X" ALL THAT APPLY
NEW EMPLOYEE DIVISION INDOCTRINATION	
NEW EMPLOYEE AREA SPECIFIC HAZARD COMMUNICATION	
TRANSFER EMPLOYEE HAZARD COMMUNICATION	
NEW CHEMICAL OR HAZARD TRAINING	
NON-ROUTINE TASKS TRAINING	
ANNUAL HEALTH HAZARD TRAINING	
COMMUNICATION OF EXPOSURE MONITORING DATA	
OTHER TRAINING (DESCRIBE) <i>Review Asbestos Handling (DIVISION)</i>	X

BRIEFLY DESCRIBE THE TRAINING INCLUDING: AGENDA/COURSE OUTLINE, VIDEOS SHOWN, PAMPHLETS DISTRIBUTED, OR QUIZ/TEST. ATTACH COPY OF THE AGENDA/COURSE OUTLINE WITH THIS SHEET FOR INCLUSION IN THE ANNUAL REPORT BACKUP PACKAGE.

IF THE FOLLOWING INFORMATION FOR THE CHEMICAL AND PHYSICAL AGENTS WHICH WERE REVIEWED:

CHEMICAL/PHYSICAL AGENT	MSDS, TIME, CETA, PICCS	REVISION DATE

NOTE: Have attendees sign IN INK on next page. Send documentation to the Industrial Hygiene Department, 3502-W, at year end for inclusion in the Annual Report Backup Package for the 75 year retention period.

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**INDUSTRIAL HYGIENE TRAINING DOCUMENTATION
FORM FOR CONTRACTORS & DOW EMPLOYEES**

	Attendees Name (in ink)	Master/S.S. Number	Date
1.			7/22/92
2.			7/23/92
3.			7/23/92
4.			7-23-92
5.			7/27/92
6.			7/31/92
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SAFETY MEETING MAKE UP SHEET.

_____ HAS REVIEWED THE MATERIAL THAT WAS
COVERED IN THE JULY 14, 1992 SAFETY MEETING.
(MONTH) (YEAR)

DATE AUG. 8, 1992

SUPERVISOR'S SIGNATURE

DATE 8/10/92

PRODUCTION SUPERVISOR

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R&S 148365

SAFETY MEETING MAKE UP SHEET

_____ HAS REVIEWED THE MATERIAL THAT WAS
COVERED IN THE July (Quarter) 1992 SAFETY MEETING.
(MONTH) (YEAR)

DATE 8/17/92 _____
SUPERVISOR'S SIGNATURE

DATE 8/18/92 _____
PRODUCTION SUPERVISOR

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SAFETY MEETING MAKE UP SHEET.

_____ HAS REVIEWED THE MATERIAL THAT WAS
COVERED IN THE July 1992 SAFETY MEETING.
(MONTH) (YEAR)

DATE _____ SUPERVISOR'S SIGNATURE _____

DATE 8/7/92 _____
PRODUCTION SUPERVISOR

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R&S148367

SAFETY MEETING MAKE UP SHEET

_____ HAS REVIEWED THE MATERIAL THAT WAS
COVERED IN THE July (Quarter) 1992 SAFETY MEETING.
(MONTH) (YEAR)

DATE 8/17/92 _____
SUPERVISOR'S SIGNATURE

DATE 8/18/92 _____
PRODUCTION SUPERVISOR

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R&S148368

**AGENDA FOR SAFETY/ENVIRONMENTAL DAY
JULY 14 & 16 TH. 1992**

7:00 -----7:10		INTRODUCTION
7:10-----7:20		WELCOME
7:20-----7:50		FENWAL BOTTLE INSTALATION
7:50-----8:00	BREAK	
8:00----10:00		SHIFTWORK EDUCATION
10:00--10:10	BREAK	
10:10--10:40		DIVISION/PLANT SPILL HISTORY
10:40--11:15		S-316 ELECTRICAL SAFETY
11:15--11:55	LUNCH	
11:55--12:30		S-303 DANGER RED TAG
12:30---1:00		S-312 HOT WORK
1:00-----1:10	BREAK	
1:10-----2:00		CHLORINE ISSUES
2:00-----2:10	BREAK	
2:10-----TIL		ANNOUCMENTS OPEN FLOOR
MISC. TOPICS		VINYL CHLORIDE CAN FUND ASBESTOS GUIDELINES AIR POLLUTION PLAN ISO 9000 UPDATE

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DOW CONFIDENTIAL

DOW

REPORT OF ADVERSE REACTION
(TSCA SECTION 8(C))

I. ORIGIN (COMPLETE FOR ALL REPORTS:)

DATE REPORT WAS RECEIVED

8 9 93
MONTH DAY YEAR

REPORTED TO: (Enter YOUR name)

FILE NO. 105295

DISPOSITION: FF

RETAIN UNTIL 23/10/18

LOCATION

MIDLAND

DEPARTMENT
OR DIVISION

EHRA



REPORT WAS MADE TO YOU IN WRITING

STOP HERE. ATTACH WRITTEN REPORT TO THIS FORM AND PROCESS AS DIRECTED BY
YOUR ORGANIZATION TSCA 8(C) COORDINATOR.

REPORT WAS MADE TO YOU ORALLY

COMPLETE ALL OF PART II OF THE FORM. PROCESS AS DIRECTED BY YOUR
ORGANIZATION TSCA 8(C) COORDINATOR.

RECEIVED

AUG 17 1993

REGULATORY COMPLIANCE

II. INFORMATION ABOUT ADVERSE REACTION

1. DESCRIPTION OF EFFECT:

*Cancer and Melanoma alleged
Caused by VC/PVC in 7/13/93 issue of Jan Health
author. Article sent to me by** FOR HEALTH EFFECTS, YOU MUST DESCRIBE HOW THE EFFECTS BECAME KNOWN TO THE ALLEGER; THE ROUTE OF EXPOSURE; NUMBER OF
PEOPLE AFFECTED AT ONE TIME; WHETHER EFFECT WAS REPETITIVE; AND DESCRIPTION OF THE ADVERSE EFFECT FOR ENVIRONMENTAL
EFFECTS, INCLUDE INFORMATION ABOUT THE AFFECTED SPECIES OR CONTAMINATED PORTION OF THE ENVIRONMENT AS WELL AS EFFECT
OBSERVED. CONTINUE ON A SEPARATE PAGE, IF NECESSARY, AND ATTACH TO FORM. (PLEASE WRITE FILE NUMBER ON ALL ATTACHMENTS.)

2. EFFECT DESCRIBED

WAS ☒ WAS NOT ☐ OCCUPATIONAL IN ORIGIN (CHECK ONE)

3. ALLEGED SOURCE OF EFFECT**

*Vinyl chloride; PVC*** IDENTIFY THE CHEMICAL, PRODUCT, MIXTURE, ARTICLE, PROCESS OR OPERATION, SITE, EMISSION OR DISCHARGE ALLEGED TO BE THE SOURCE
OF THE EFFECT DESCRIBED ABOVE.

III. INFORMATION ABOUT ALLEGER OR AFFECTED PERSON

1. DESCRIPTION OF
AFFECTED PERSONDOW EMPLOYEE ☐CUSTOMER EMPLOYEE ☐INDIVIDUAL CONSUMER ☐PLANT NEIGHBOR ☐OTHER (SPECIFY) *Generic description of
affected persons in article*

CUSTOMER NAME

FOR HUMAN HEALTH EFFECTS (IF AVAILABLE):

SEX OF AFFECTED PERSON

☐ MALE☐ FEMALE

YEAR OF BIRTH

2. PERSONAL INFORMATION

ALLEGER:

PHONE

ADDRESS

CITY

MIDLAND

ST

ZIP

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F&S 148373

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FILE NUMBER 105295

PRINTED BY U024899 ROBERTSON, DOLORES H.
0030 635-5929 94/02/28 16:07:46

From: U424141 --S14VM Date and time 02/28/94 09:23:
To: U024899 --S14VM ROBERTSON, DOLORES

FROM: WRIGHT, PAUL A.
Subject: TSCA 8(e) Committee Meeting
Frl

*** Forwarding note from U079480 --S21VM 02/28/94 09:11 ***
To: U700669 --S21VM Robert L. Hagerman U060785 --S21VM Vern T. May
U084161 --S21VM Robert H. Fike U080665 --S21VM Rolf M. Hahne
U079317 --S21VM Sue Hearn U057752 --S21VM James R. Keith
U077240 --S21VM Monte A. Hayes U913353 --MACAMS
U422332 --S08VRNA U072283 --S21VM Phil Watanabe
U424141 --S14VM U077384 --S21VM John T. Young

From: TAMI SCHLOSSER, H&ES ADMIN, 1803 BLDG, 6-5171

Requester: Tami J. Schlosser
Date to be scheduled: 03/04/94
Starting time: 8:30 AM
Ending time: 9:30 AM

Location: 1803 Building
CR-235 West

Subject: TSCA 8(e) Committee Meeting

Purpose: VINYL CHLORIDE & PLANT HEALTH SUMMARY

R8S148375