

**CertainTeed**

John McGinley

RECEIVED DEC 31 1992

Janis  
Have you been  
contacted to provide  
this information.

Please call me  
for discussion.

Thanks.

John  
12/23/92

CTD026085



ASBESTOS INFORMATION ASSOCIATION

1745 Jefferson Davis Highway, Crystal Square 4, Suite 509  
Arlington, Virginia 22202 • (703) 979-1150 • FAX (703) 979-1152

FC  
11/29/93

12/22/92

To J.P. McGinley, RECEIVED  
John -  
Wendy  
please handle.  
Thank  
you

DEC 21 1992

P&PG SALES

December 17, 1992

Memorandum For: AIA/NA Members (less Canadian Producers)

Subject: Dust Measurement Records (DMRs) for 1991 and 1992 - requested by Asbestos International Association

Please find enclosed a copy of the Asbestos International Association's letter dated December 17, 1992 and attachments thereto.

It may be recalled from previous efforts of this nature that the AIA, at the approval of its Governing Council, has collected data on dust levels in factories and mines and mills from companies belonging to national associations that are members of the AIA, as well from other companies that elect to participate. This survey pertains to 1991 and 1992. As noted in the December 17 AIA letter, this survey is particular important in view of the AIA Biennial Conference scheduled for May 10-12, 1993.

It is understood that the asbestos producers in Canada will be participating in this survey through The Asbestos Institute.

AIA/NA members and other interested companies that have participated in prior surveys include the following for which sincere appreciation is extended:

Allied-Signal (Bendix)  
CAPCO Pipe Company  
CertainTeed Corp.  
DISTEX  
Durabla  
Ferodo America

Henry Company  
Grundy Industries  
KCAC  
Monsey Products  
Supradur  
Vermont Asbestos Group

Accordingly, AIA/NA members (less Canadian producers) are requested to give close attention to the enclosures at your earliest convenience. Return of the AIA Dust Measurement Records (DMRs) for 1991 and 1992 to this office by March 24, 1993 would allow for collation and transmission to AIA within the timeframe requested. One of the principal uses of these surveys is to demonstrate before various international bodies and officials that worker exposures to asbestos dust continue to decline as a result of responsible efforts by the asbestos industry.

RECEIVED

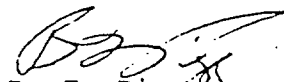
- over - DEC 22 1992

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By copy of this memorandum, we encourage companies that are not members of AIA/NA, but have made financial contributions to our work, to participate in this important survey for 1991 and 1992.

Thank you in advance for your assistance. Please let us know should you have questions or if we can be of help in any way.



B. J. Pigg  
President

Enclosures

cc: AIA/NA Contributors  
Daniel Bouige, AIA (less encls)  
Michel Gratton, AI (less encls)

CTD026087



The Asbestos International Association for environmental and occupational health  
protection wherever asbestos or other fibres are used for the same purposes

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TO: All Associate Members  
cc: Governing Council Members  
Executive Committee Members  
DAP

DATE: December 17, 1992

FROM: D. Bouige

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REF: 1991/1992 AIA DUST MEASUREMENT RECORDS (DMRs)

Please find enclosed the DMRs enquiries for 1991 and 1992.

As we have emphasized in our previous circular related to this subject, the AIA's credibility depends very much upon our ability to demonstrate that levels of exposure are measured regularly, thanks to most of the companies associated with the AIA.

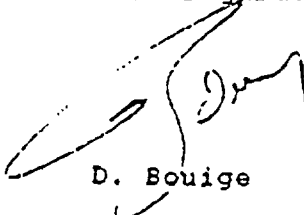
However, the Executive Committee expressed concerns regarding the slow return of the 1990 data and we have been requested to point out to you that complete data from each country or Association are expected, and any late reply would impede the report to be issued in due time.

The next AIA Biennial Conference will start on 10 May, 1993. It goes without saying how much it is important to have the 1991 and 1992 DMRs data available during the Conference.

We therefore request you to return the enquiries NOT LATER THAN the end of March 1993. The deadline is given because at least one month is needed to produce the final reports.

IF YOU HAVE ANY DIFFICULTY TO  
COMPLETE THE FORMS, PLEASE TELL US  
IMMEDIATELY OR CONTACT A. BAUJON,  
LHCF AT TEL: (33) 1 45 22 12 34, FAX:  
(33) 1 40 08 01 99

Best regards,



D. Bouige

Encls: 1991/1992 DMRs enquiries  
Note for Guidance

CTD026088

## NOTES FOR GUIDANCE WHEN COMPLETING THE DUST MEASUREMENT RECORD

(DMR)

The DMR is confidential and only an AIA composite report will be made public. Individual factories and companies will not be disclosed.

The total workforce referred to in Question 1 should include all personnel on the pay roll including office staff, etc.

The "workers under survey" referred to in question 1 are the number of workers to whom an exposure index is assigned in the factory records.

The enquiry about laboratory control schemes referred to in question 6 reflects the importance of this issue and all laboratories carrying out analysis should take part in a well constructed scheme. The AIA counting trial is available to all AIA member associations.

The table 8 requests information about the monitoring data obtained over the year :

- Personal samples are intended to monitor exposure of individual persons and are attached to the person being monitored.

- Static samples are used to measure general dust levels and are used for engineering control purposes.

- The column headed "Workers in the Class" refers to the number of persons allocated to each class of measurement. For instance if a sample is taken to represent a work group of 10 persons, because their work practices are identical the entry should be 10 and not 1. Considerable care is necessary when deciding upon group representation of this nature. Most workers have individual work practices which greatly influence exposure.

If there is good reason to report results in section (8) as separate groups, e.g. persons working only with glass wool and no asbestos etc. then it is permissible to submit that group on a separate and full recorded sheet.



January 29, 1993

Mr. B. J. Pigg  
Asbestos Information Association  
1745 Jefferson Davis Highway  
Crystal Square 4, Suite 509  
Arlington, Virginia 22202

Dear Bob:

Attached are our completed AIA Dust Measurement Records (DMR) for the years 1991 and 1992. As in the past, this information covers our only remaining A/C pipe plant. For the record, this plant was closed in December 1992.

As I mentioned last time we reported these numbers, September 1991, I have a concern in how this information will be used. Most importantly, I don't believe the information provided in this format is an accurate indicator of the continued decline of asbestos exposure. By still using this format it seems nothing was done to correct this problem.

For the record, I will once again express my concern. As you stated in your letter (dated 12/17/1992 and prior years), this information is used to demonstrate that worker exposures to asbestos dust continue to decline. Overall, I agree that asbestos exposures are declining, however I am not sure that the information provided in this format is an accurate indicator.

As I am sure you are aware, OSHA with the last revision of the asbestos standard, October 1988, amended the standard by adding an excursion limit (EL) of 1 f/cc over a 30 minute sampling period. This short term monitoring is required whenever the asbestos concentration will not be uniform throughout the workday and high concentrations of asbestos reasonably may be expected to be released or created in excess of the EL.

To comply with this regulation, we at CertainTeed collect samples during our routine and preventive maintenance projects, which include entering the bag opener and dust collectors. During these jobs our employees are adequately protected using full face HEPA filter respirators and Tyvek coveralls. In most

Mr. B. J. Pigg  
January 31, 1993  
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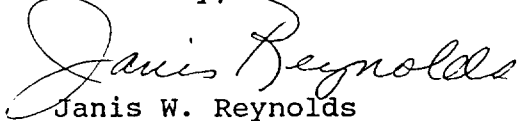
cases, during these excursion level projects the samples become extremely overloaded and uncountable. Those that can be effectively analyzed result in excessive levels. These results are included in the worker's time weighted average (TWA), thus increasing the 8-hour exposure considerably.

These types of preventive maintenance projects will always be accomplished in our plant, and will always result in higher fiber concentrations, thus skewing the data for normal day to day manufacturing operations.

I'm sure other participating companies in the U.S. are aware of this situation, however, I'm not sure the international members collect samples in the same manner, and are probably not aware of this problem. Perhaps a more thorough questionnaire would take into consideration this excursion limit problem and help to better classify this information. As a minimum, I suggest that TWA's containing excursion limit samples, primarily maintenance operations, be classified separately.

From all indications, this will be the last year of our participation in this data collection. Thank you for including CertainTeed in this survey and the fiber counting trial.

Sincerely,



Janis W. Reynolds  
Director, Industrial Hygiene

Attachments

cc: J. McGinley - 2125/2B  
L. Amber - 2125/2B

CTD026091



The Asbestos International Association for environmental and occupational health protection wherever asbestos or other fibres are used for the same purposes

## A.I.A. DUST MEASUREMENT RECORD (DMR) 1991

(Guidance for completing the form is provided in annex)

Please complete this enquiry anonymously, using a separate form for each factory under your control, and return them promptly to:

Asbestos Information Association  
1745 Jefferson Davis Highway  
Arlington, Virginia 22202  
Crystal Square, Suite 509  
U.S.A.

### 1. IDENTIFY INDIVIDUAL FACTORY PRODUCT GROUP

Total Workforce      Workers Under survey

Mines/Mills.....  
Asbestos-Cement.....  
Friction Materials.....  
Textiles.....  
Others (specify).....

|    |    |
|----|----|
|    |    |
| 67 | 67 |
|    |    |
|    |    |
|    |    |

### 2. STATE WHICH FIBROUS MATERIALS ARE BEING USED

Chrysotile.....  
Amphibole (specify).....  
MMMF Aramids, etc..(specify below)  
.....

(1)

|   |
|---|
| X |
| X |
|   |

### 3. WHAT ARE YOUR NATIONAL CONTROL STANDARDS

Chrysotile.....  
Amphibole (specify).....  
MMMF Aramids, etc..(specify below)  
.....

(2)

|           |
|-----------|
| 0.2 f/cc* |
| 0.2 f/cc* |
|           |

### 4. WHICH SAMPLING AND FIBRE COUNTING METHOD IS USED

RTM1.....  
ERM.....  
NIOSH.....  
OTHER (specify)....

|   |
|---|
|   |
|   |
| X |
|   |

- (1) Mark with a cross as appropriate  
(2) Complete with units as appropriate

CTD026092

\*NOTE: 8 hr. Permissible Exposure Limit (PEL) established by the United States Occupational Safety & Health Administration (OSHA). We also have an Excursion Level (EL) of 1 f/cc for 30 minutes.

5. STATE YOUR NORMAL SAMPLING DURATION

several individual short-term samples to falling approx. 400 minutes

6. DOES YOUR COUNTING LABORATORY TAKE PART IN A QUALITY CONTROL SCHEME

A.I.A. (Fibre Counting Trial).....  
 Your own laboratory scheme.....  
 Others (specify).....

|   |
|---|
| X |
| X |
|   |

Yes/No

7. DO YOU CARRY OUT GRAVIMETRIC SAMPLING IF YES STATE FOR WHICH SUBSTANCES

.....

|     |
|-----|
| YES |
|-----|

8. DISTRIBUTION OF MONITORING DATA FOR THE CURRENT CALENDAR YEAR

| 1991<br>Class F/cm3 | NUMBER              |                   |                         |
|---------------------|---------------------|-------------------|-------------------------|
|                     | PERSONAL<br>SAMPLES | STATIC<br>SAMPLES | WORKERS<br>IN THE CLASS |
| $C \leq 0.1$        | 43                  |                   | 50                      |
| $0.1 < C \leq 0.2$  | 12                  |                   | 17                      |
| $0.2 < C \leq 0.3$  |                     |                   |                         |
| $0.3 < C \leq 0.4$  |                     |                   |                         |
| $0.4 < C \leq 0.5$  |                     |                   |                         |
| $0.5 < C \leq 0.6$  |                     |                   |                         |
| $0.6 < C \leq 0.7$  |                     |                   |                         |
| $0.7 < C \leq 0.8$  |                     |                   |                         |
| $0.8 < C \leq 0.9$  |                     |                   |                         |
| $0.9 < C \leq 1.0$  |                     |                   |                         |
| $1.0 < C \leq 2.0$  | 1                   |                   | 0                       |
| $C > 2.0$           |                     |                   |                         |
| TOTAL NUMBER        | 56                  |                   | (*) 67                  |

(\*) Should equal number of workers under survey as in para 1

9. INDICATE WHETHER PERSONS EXPOSED IN EXCESS OF EXISTING CONTROL STANDARDS ARE PROVIDED WITH RESPIRATORS

Yes/No

|     |
|-----|
| yes |
|-----|

10 ARE THERE ANY RELATED MATTERS WHICH YOU REQUIRE ASSISTANCE WITH

Yes/No

|    |
|----|
| no |
|----|

.....  
 .....

- (1) Mark with a cross as appropriate  
 (2) Complete with units as appropriate



The Asbestos International Association for environmental and occupational health protection wherever asbestos or other fibres are used for the same purposes

## A.I.A. DUST MEASUREMENT RECORD (DMR) 1992

(Guidance for completing the form is provided in annex)

Please complete this enquiry anonymously, using a separate form for each factory under your control, and return them promptly to:

Asbestos Information Association  
1745 Jefferson Davis Highway  
Arlington, Virginia 22202  
Crystal Square, Suite 509  
U.S.A.

### 1. IDENTIFY INDIVIDUAL FACTORY PRODUCT GROUP

Total Workforce      Workers Under survey

Mines/Mills.....  
Asbestos-Cement.....  
Friction Materials.....  
Textiles.....  
Others (specify).....

|    |    |
|----|----|
|    |    |
| 46 | 46 |
|    |    |
|    |    |
|    |    |

### 2. STATE WHICH FIBROUS MATERIALS ARE BEING USED

Chrysotile.....  
Amphibole (specify) ..crocidolite  
MMMF Aramids, etc..(specify below)

(1)

|   |
|---|
| X |
| X |
|   |

### 3. WHAT ARE YOUR NATIONAL CONTROL STANDARDS

Chrysotile.....  
Amphibole (specify).....  
MMMF Aramids, etc..(specify below)

(2)

|           |
|-----------|
| 0.2 f/cc* |
| 0.2 f/cc* |
|           |

### 4. WHICH SAMPLING AND FIBRE COUNTING METHOD IS USED

RTM1.....  
ERM.....  
NIOSH.....  
OTHER (specify)....

|   |
|---|
|   |
|   |
| X |
|   |

CTD026094

(1) Mark with a cross as appropriate

(2) Complete with units as appropriate

\*NOTE: 8hr. Permissible Exposure Limite (PEL) established by the United States Occupational Safety & Health Administration (OSHA). We also have an Excursion Level (EL) of 1 f/cc for 30 minutes

(2)

5. STATE YOUR NORMAL SAMPLING DURATION6. DOES YOUR COUNTING LABORATORY TAKE PART  
IN A QUALITY CONTROL SCHEME

A.I.A. (Fibre Counting Trial).....  
 Your own laboratory scheme.....  
 Others (specify).....

several individual short-  
 term samples to falling approx  
 400 minutes.

|   |
|---|
| X |
| X |
|   |

7. DO YOU CARRY OUT GRAVIMETRIC SAMPLING  
IF YES STATE FOR WHICH SUBSTANCES

Yes/No

YES

8. DISTRIBUTION OF MONITORING DATA FOR THE CURRENT CALENDAR YEAR

| 1992<br>Class F/cm3 | NUMBER              |                   |                         |
|---------------------|---------------------|-------------------|-------------------------|
|                     | PERSONAL<br>SAMPLES | STATIC<br>SAMPLES | WORKERS<br>IN THE CLASS |
| $C \leq 0.1$        | 55                  |                   | 38                      |
| $0.1 < C \leq 0.2$  | 4                   |                   | 4                       |
| $0.2 < C \leq 0.3$  | 2                   |                   | 2                       |
| $0.3 < C \leq 0.4$  | 1                   |                   | 1                       |
| $0.4 < C \leq 0.5$  | 1                   |                   | 1                       |
| $0.5 < C \leq 0.6$  |                     |                   |                         |
| $0.6 < C \leq 0.7$  |                     |                   |                         |
| $0.7 < C \leq 0.8$  |                     |                   |                         |
| $0.8 < C \leq 0.9$  |                     |                   |                         |
| $0.9 < C \leq 1.0$  |                     |                   |                         |
| $1.0 < C \leq 2.0$  |                     |                   |                         |
| $C > 2.0$           |                     |                   |                         |
| TOTAL NUMBER        | 63                  |                   | (*) 46                  |

(\*) Should equal number of workers under survey as in para 1

9. INDICATE WHETHER PERSONS EXPOSED IN EXCESS  
OF EXISTING CONTROL STANDARDS ARE PROVIDED  
WITH RESPIRATORS

Yes/No

YES

10 ARE THERE ANY RELATED MATTERS WHICH YOU REQUIRE  
ASSISTANCE WITH

Yes/No

NO

- (1) Mark with a cross as appropriate  
 (2) Complete with units as appropriate

CTD026095

Personal Fiber Glass Exposures for PPG  
for samples taken at RIVERSIDE

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| Survey Date       | Location          | Job      | Minutes | Details | IWA        | Exposure Limit      | Contaminant | Employee Name          |
|-------------------|-------------------|----------|---------|---------|------------|---------------------|-------------|------------------------|
| P 91-02 02/26/91  | MIXER             | OPERATOR | 460     | 2       | 0.173757   | OSHA PEL = 0.2 F/CC | Asbestos    | ASKEW, WILLIAM E.      |
| P 91PT03 07/08/91 | MIXER             | OPERATOR | 645     | 3       | 0.036884 ✓ | OSHA PEL = 2 F/CC   | Asbestos    | ASKEW, WILLIAM E.      |
| P 92-13 06/22/92  | MIXER             | OPERATOR | 433     | 3       | 0.208818   | OSHA PEL = 0.2 F/CC | Asbestos    | GARCIA, MONTY A.       |
| P 92-13 06/23/92  | MIXER             | OPERATOR | 495     | 4       | 0.044964 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | GARCIA, MONTY A.       |
| P 92-18 08/24/92  | MIXER             | OPERATOR | 440     | 4       | 0.050311 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | GARCIA, MONTY A.       |
| P 92-18B 09/08/92 | MIXER             | OPERATOR | 445     | 3       | 0.064231 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | MARTINEZ, PETE G.      |
| P 92-18C 09/09/92 | MIXER             | OPERATOR | 435     | 3       | 0.003865 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | REYES, PETER C.        |
| P 92-28 11/16/92  | MIXER             | OPERATOR | 389     | 3       | 0.036201 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | ASKEW, WILLIAM E.      |
| P 92-28 11/16/92  | MIXER             | OPERATOR | 445     | 4       | 0.065822 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | GARCIA, MONTY A.       |
| P 92-28 11/17/92  | MIXER             | OPERATOR | 455     | 4       | 0.027764 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | GARCIA, MONTY A.       |
| P 91-02 02/27/91  | CPLGCOFF LABORER  |          | 90      | 3       | 0.121810   | OSHA PEL = 0.2 F/CC | Asbestos    | BRYANT, BIRK           |
| P 91-02 02/27/91  | LATHLINE HANDLER  |          | 476     | 2       | 0.030637 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | GOODWIN, LORAN C.      |
| P 91PT03 01/14/91 | SAWREWRK OPERATOR |          | 420     | 2       | 0.073314 ✓ | OSHA PEL = 2 F/CC   | Asbestos    | CLAUSON, JOHN N.       |
| P 91PT03 01/14/91 | CRUSHER OPERATOR  |          | 420     | 2       | 0.095357 ✓ | OSHA PEL = 2 F/CC   | Asbestos    | CONTRERAS, JOE L.      |
| P 91PT03 01/22/91 | CPLGCOFF OPERATOR |          | 430     | 2       | 0.125760   | OSHA PEL = 2 F/CC   | Asbestos    | COOLEY, DENNIS D.      |
| P 91PT03 02/05/91 | PRESS OPERATOR    |          | 440     | 2       | 0.086727 ✓ | OSHA PEL = 2 F/CC   | Asbestos    | LOLIE, KEVIN W.        |
| P 91PT03 02/06/91 | MANDREL OPERATOR  |          | 410     | 2       | 0.068232 ✓ | OSHA PEL = 2 F/CC   | Asbestos    | CANTRELL, NORMAN L.    |
| P 91PT03 02/11/91 | CPLGCOFF OPERATOR |          | 410     | 2       | 0.102356   | OSHA PEL = 2 F/CC   | Asbestos    | COOLEY, DENNIS D.      |
| P 91-02 02/26/91  | PIPEWACH TENDER   |          | 461     | 2       | 0.071117 ✓ | OSHA PEL = 0.2 F/CC | Asbestos    | AESCHLIMAN, KENNETH M. |
| P 91-02 02/26/91  | SAWREWRK OPERATOR |          | 463     | 2       | 0.185353   | OSHA PEL = 0.2 F/CC | Asbestos    | CLAUSON, JOHN N.       |
| P 91-02 02/26/91  | CRUSHER OPERATOR  |          | 453     | 2       | 0.110444   | OSHA PEL = 0.2 F/CC | Asbestos    | CONTRERAS, JOE L.      |

CTD026096

Personal Fiber Glass Exposures for PPG  
For samples taken at RIVERSIDE

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| Survey Date      | Location  | Job      | Minutes | Details | IWA      | Exposure Limit      | Contaminant | Employee Name          |
|------------------|-----------|----------|---------|---------|----------|---------------------|-------------|------------------------|
| P 91-02 02/26/91 | CPLGCOFF  | OPERATOR | 494     | 5       | 0.162002 | OSHA PEL = 0.2 F/CC | Asbestos    | COOLEY, DENNIS D.      |
| P 91-02 02/26/91 | TRAYLOAD  | OPERATOR | 457     | 2       | 0.017171 | OSHA PEL = 0.2 F/CC | Asbestos    | LEDFORD, JOE D.        |
| P 91-02 02/26/91 | PIPEMACH  | RELIEF   | 424     | 3       | 0.078581 | OSHA PEL = 0.2 F/CC | Asbestos    | MARRON, DOUGLAS J.     |
| P 91-02 02/26/91 | MANDREL   | HANDLER  | 105     | 2       | 0.034408 | OSHA PEL = 0.2 F/CC | Asbestos    | PLAZA, MANUEL M.       |
| P 91-02 02/26/91 | PIPEMACH  | STRIPPER | 455     | 2       | 0.011662 | OSHA PEL = 0.2 F/CC | Asbestos    | SONCRANT, WILLIAM G.   |
| P 91-02 02/26/91 | FINISHING | FORKLIFT | 382     | 1       | 0.038665 | OSHA PEL = 0.2 F/CC | Asbestos    | STANFIELD, RICHARD H.  |
| P 91-02 02/26/91 | PRESS     | OPERATOR | 241     | 2       | 0.035551 | OSHA PEL = 0.2 F/CC | Asbestos    | VILLALPANDO, ANDRES R. |
| P 91-02 02/27/91 | BORGML42  | OPERATOR | 488     | 2       | 0.136942 | OSHA PEL = 0.2 F/CC | Asbestos    | ANAYA, MADELINE        |
| P 91-02 02/27/91 | LATHLINE  | OPERATOR | 455     | 2       | 0.031611 | OSHA PEL = 0.2 F/CC | Asbestos    | AVERY, JR, ALBERT      |
| P 91-02 02/27/91 | SAVREWRK  | OPERATOR | 0       | 2       | 0.000000 | OSHA PEL = 0.2 F/CC | Asbestos    | CLAUSON, JOHN N.       |
| P 91-02 02/27/91 | CRUSHER   | OPERATOR | 442     | 3       | 0.038452 | OSHA PEL = 0.2 F/CC | Asbestos    | CONTRERAS, JOE L.      |
| P 91-02 02/27/91 | CPLGCOFF  | OPERATOR | 499     | 4       | 0.089571 | OSHA PEL = 0.2 F/CC | Asbestos    | COOLEY, DENNIS D.      |
| P 91-02 02/27/91 | LATHLINE  | HANDLER  | 472     | 2       | 0.029547 | OSHA PEL = 0.2 F/CC | Asbestos    | COOPER, HOMER L.       |
| P 91-02 02/27/91 | CPTESTER  | OPERATOR | 476     | 2       | 0.052102 | OSHA PEL = 0.2 F/CC | Asbestos    | CORRAL, RICHARD Q.     |
| P 91-02 02/27/91 | CPTESTER  | OPERATOR | 476     | 2       | 0.109413 | OSHA PEL = 0.2 F/CC | Asbestos    | DOBBS, PHILLIP R.      |
| P 91-02 02/27/91 | FINISHING | INSPECTO | 493     | 2       | 0.026631 | OSHA PEL = 0.2 F/CC | Asbestos    | GARCIA, MONTY A.       |
| P 91-02 02/27/91 | LATHLINE  | OPERATOR | 451     | 2       | 0.038802 | OSHA PEL = 0.2 F/CC | Asbestos    | PASILLAS, DAVID        |
| P 91-02 02/27/91 | LATHLINE  | HANDLER  | 475     | 2       | 0.066922 | OSHA PEL = 0.2 F/CC | Asbestos    | RODRIGUEZ, JESSE A.    |
| P 91-02 02/27/91 | HYDROTES  | OPERATOR | 460     | 2       | 0.044549 | OSHA PEL = 0.2 F/CC | Asbestos    | STEWART, RAYMOND L.    |
| P 91-02 02/28/91 | SAVREWRK  | OPERATOR | 0       | 2       | 0.000000 | OSHA PEL = 0.2 F/CC | Asbestos    | CLAUSON, JOHN N.       |
| P 91-02 02/28/91 | CPLGCOFF  | OPERATOR | 487     | 2       | 0.113478 | OSHA PEL = 0.2 F/CC | Asbestos    | COOLEY, DENNIS D.      |

CTD026097

Personal Fiber Glass Exposures for PPG  
For samples taken at RIVERSIDE

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| Survey Date       | Location          | Job      | Minutes | Details | IWA      | Exposure Limit        | Contaminant | Employee Name         |
|-------------------|-------------------|----------|---------|---------|----------|-----------------------|-------------|-----------------------|
| P 91-02 02/28/91  | LATHE1/4          | OPERATOR | 460     | 2       | 0.074878 | ✓ OSHA PEL = 0.2 F/CC | Asbestos    | GOODWIN, LORAN C.     |
| P 91PT03 04/10/91 | CRUSHER           | OPERATOR | 470     | 2       | 0.018000 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | CONTRERAS, JOE L.     |
| P 91PT03 04/22/91 | CRUSHER           | OPERATOR | 475     | 2       | 0.012789 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | CONTRERAS, JOE L.     |
| P 91PT03 04/26/91 | SAUREWRK          | OPERATOR | 480     | 2       | 0.006469 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | GOODWIN, LORAN C.     |
| P 91PT03 05/02/91 | SAUREWRK          | OPERATOR | 470     | 2       | 0.026000 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | GOODWIN, LORAN C.     |
| P 91PT03 05/14/91 | CRUSHER           | OPERATOR | 495     | 2       | 0.027273 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | CONTRERAS, JOE L.     |
| P 91PT03 05/14/91 | SAUREWRK          | OPERATOR | 500     | 2       | 0.026350 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | GOODWIN, LORAN C.     |
| P 91PT03 05/20/91 | CRUSHER           | OPERATOR | 435     | 2       | 0.053552 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | CONTRERAS, JOE L.     |
| P 91PT03 07/22/91 | MANDREL           | OPERATOR | 645     | 3       | 0.049155 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | CANTRELL, NORMAN L.   |
| P 91PT03 08/19/91 | SAUREWRK          | OPERATOR | 435     | 2       | 0.038186 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | GOODWIN, LORAN C.     |
| P 91PT03 08/20/91 | CPLGCOFF          | OPERATOR | 420     | 2       | 0.036943 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | COOLEY, DENNIS D.     |
| P 91PT03 11/15/91 | MANDREL           | OPERATOR | 430     | 2       | 0.069140 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | CANTRELL, NORMAN L.   |
| P 92PT05 05/13/92 | FINISHING HANDLER |          | 450     | 2       | 0.019667 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | MARTINEZ, PETE G.     |
| P 92PT05 05/13/92 | PIPEMACH          | TENDER   | 435     | 2       | 0.016207 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | MORALES, DAVID E.     |
| P 92PT05 05/15/92 | CPLGCOFF          | OPERATOR | 390     | 2       | 0.051462 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | RENFRO, EDWARD T.     |
| P 92PT05 05/22/92 | PIPEMACH          | TENDER   | 450     | 2       | 0.049800 | ✓ OSHA PEL = 2 F/CC   | Asbestos    | MARRON, DOUGLAS J.    |
| P 92-13 06/22/92  | CRUSHER           | OPERATOR | 469     | 4       | 0.065943 | ✓ OSHA PEL = 0.2 F/CC | Asbestos    | CONTRERAS, JOE L.     |
| P 92-13 06/22/92  | PIPEMACH          | STRIPPER | 263     | 4       | 0.011203 | ✓ OSHA PEL = 0.2 F/CC | Asbestos    | COOLEY, DENNIS D.     |
| P 92-13 06/22/92  | MANDREL           | OPERATOR | 424     | 4       | 0.200510 | OSHA PEL = 0.2 F/CC   | Asbestos    | CORRAL, RICHARD Q.    |
| P 92-13 06/22/92  | TRAYLOAD          | OPERATOR | 409     | 4       | 0.023887 | ✓ OSHA PEL = 0.2 F/CC | Asbestos    | DOBBS, PHILLIP R.     |
| P 92-13 06/22/92  | PRESS             | OPERATOR | 218     | 3       | 0.496483 | OSHA PEL = 0.2 F/CC   | Asbestos    | HAMILTON, CHRISTOPHER |

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Personal Fiber Glass Exposures for PPG  
For samples taken at RIVERSIDE

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| Survey Date       | Location | Job      | Minutes | Details | TWA      | Exposure Limit      | Contaminant | Employee Name         |
|-------------------|----------|----------|---------|---------|----------|---------------------|-------------|-----------------------|
| P 92-18C 09/09/92 | PIPEMACH | TENDER   | 430     | 3       | 0.039643 | OSHA PEL = 0.2 F/CC | Asbestos    | MORALES, DAVID E.     |
| P 92-18C 09/09/92 | PRESS    | OPERATOR | 420     | 3       | 0.026940 | OSHA PEL = 0.2 F/CC | Asbestos    | PASILLAS, DAVID       |
| P 92-28 11/16/92  | MANDREL  | HANDLER  | 438     | 3       | 0.011963 | OSHA PEL = 0.2 F/CC | Asbestos    | CANTRELL, NORMAN L.   |
| P 92-28 11/16/92  | MANDREL  | HANDLER  | 118     | 1       | 0.307292 | OSHA PEL = 0.2 F/CC | Asbestos    | CANTRELL, NORMAN L.   |
| P 92-28 11/16/92  | MANDREL  | HANDLER  | 311     | 3       | 0.069166 | OSHA PEL = 0.2 F/CC | Asbestos    | CONTRERAS, JOE L.     |
| P 92-28 11/16/92  | PIPEMACH | RELIEF   | 251     | 3       | 0.015951 | OSHA PEL = 0.2 F/CC | Asbestos    | GRANILLO, BENJAMIN    |
| P 92-28 11/16/92  | PRESS    | OPERATOR | 433     | 4       | 0.058308 | OSHA PEL = 0.2 F/CC | Asbestos    | HAMILTON, CHRISTOPHER |
| P 92-28 11/16/92  | PIPEMACH | TENDER   | 430     | 3       | 0.076995 | OSHA PEL = 0.2 F/CC | Asbestos    | MARRON, DOUGLAS J.    |
| P 92-28 11/16/92  | PIPEMACH | TENDER   | 426     | 3       | 0.038080 | OSHA PEL = 0.2 F/CC | Asbestos    | MORALES, DAVID E.     |
| P 92-28 11/16/92  | PRESS    | OPERATOR | 436     | 3       | 0.070692 | OSHA PEL = 0.2 F/CC | Asbestos    | PASILLAS, DAVID       |
| P 92-28 11/16/92  | PIPEMACH | RELIEF   | 433     | 3       | 0.034965 | OSHA PEL = 0.2 F/CC | Asbestos    | RENFRO, EDWARD T.     |
| P 92-28 11/16/92  | PIPEMACH | UNKNOWN  | 342     | 4       | 0.018965 | OSHA PEL = 0.2 F/CC | Asbestos    | REYNOLDS, JANIS W.    |
| P 92-28 11/17/92  | MANDREL  | HANDLER  | 458     | 3       | 0.100207 | OSHA PEL = 0.2 F/CC | Asbestos    | CORRAL, RICHARD Q.    |
| P 92-28 11/17/92  | PRESS    | OPERATOR | 462     | 3       | 0.025322 | OSHA PEL = 0.2 F/CC | Asbestos    | HAMILTON, CHRISTOPHER |
| P 92-28 11/17/92  | PIPEMACH | TENDER   | 289     | 3       | 0.097907 | OSHA PEL = 0.2 F/CC | Asbestos    | MARRON, DOUGLAS J.    |
| P 92-28 11/17/92  | PIPEMACH | RELIEF   | 426     | 3       | 0.042249 | OSHA PEL = 0.2 F/CC | Asbestos    | RENFRO, EDWARD T.     |
| P 92-28 11/17/92  | PIPEMACH | UNKNOWN  | 182     | 3       | 0.017334 | OSHA PEL = 0.2 F/CC | Asbestos    | REYNOLDS, JANIS W.    |
| P 91-02 02/27/91  | LATHEM   | OPERATOR | 487     | 2       | 0.007262 | OSHA PEL = 0.2 F/CC | Asbestos    | HAMILTON, CHRISTOPHER |
| P 91-02 02/28/91  | SHIPPING | LABORER  | 479     | 2       | 0.147896 | OSHA PEL = 0.2 F/CC | Asbestos    | BRYANT, BIRK          |
| P 92-13 06/23/92  | SHIPPING | FORKLIFT | 497     | 3       | 0.009145 | OSHA PEL = 0.2 F/CC | Asbestos    | BIVENS, JANET R.      |
| P 91-02 02/28/91  | GENERAL  | MECHANIC | 208     | 2       | 0.029474 | OSHA PEL = 0.2 F/CC | Asbestos    | BASTIAANS, HENRY J.   |

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| <u>Survey</u> | <u>Date</u> | <u>Location</u> | <u>Job</u> | <u>Minutes</u> | <u>Details</u> | <u>IWA</u> | <u>Exposure Limit</u> | <u>Contaminant</u> | <u>Employee Name</u>  |
|---------------|-------------|-----------------|------------|----------------|----------------|------------|-----------------------|--------------------|-----------------------|
| P 91-02       | 02/28/91    | GENERAL         | ELECTRIC   | 478            | 2              | 0.008319 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | CARON, ALFRED J.      |
| P 91-02       | 02/28/91    | GENERAL         | MECHANIC   | 493            | 2              | 0.007616 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | CHUTE, ROBERT G.      |
| P 91-02       | 02/28/91    | GENERAL         | MECHANIC   | 489            | 2              | 0.008243 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | GALVIN, DENNIS W.     |
| P 91-02       | 02/28/91    | BOIL            | OPERATOR   | 485            | 2              | 0.036354 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | GRZYBCZYK, RICHARD L. |
| P 91-02       | 02/28/91    | GENERAL         | MACHINIS   | 0              | 2              | 0.000000 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | MCFANN, JOSEPH R.     |
| P 91-02       | 02/28/91    | GENERAL         | MECHANIC   | 298            | 2              | 0.190292   | OSHA PEL = 0.2 F/CC   | Asbestos           | MICHEL, ROBERTO P.    |
| P 91-02       | 02/28/91    | GENERAL         | MECHANIC   | 382            | 6              | 1.127144   | OSHA PEL = 0.2 F/CC   | Asbestos           | WHITTAKER, WOODROW    |
| P 92-13       | 06/22/92    | GENERAL         | MECHANIC   | 636            | 6              | 0.095822 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | WHITTAKER, WOODROW    |
| P 92-13       | 06/23/92    | BOIL            | OPERATOR   | 695            | 5              | 0.002636 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | BASTIAANS, HENRY J.   |
| P 92-13       | 06/23/92    | GENERAL         | ELECTRIC   | 410            | 5              | 0.025188 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | CARON, ALFRED J.      |
| P 92-13       | 06/23/92    | GENERAL         | MECHANIC   | 493            | 3              | 0.006930 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | CHUTE, GAIL           |
| P 92-13       | 06/23/92    | GENERAL         | MECHANIC   | 477            | 4              | 0.023608 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | GALVIN, DENNIS W.     |
| P 92-13       | 06/23/92    | GENERAL         | MECHANIC   | 490            | 3              | 0.011384 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | MCFANN, JOSEPH R.     |
| P 92-13       | 06/23/92    | STORERM         | OPERATOR   | 498            | 3              | 0.005747 ✓ | OSHA PEL = 0.2 F/CC   | Asbestos           | WALL, FRANCIS J.      |

CTD026101

Plant totals: Range 0.000000 to 1.127144 Mean 0.066686 Std 0.117811 N=335 Geo mean \*\*\*\*\* Geo std \*\*\*\*\*