UNITED STATES BANKRUPTCY COURT
DISTRICT OF DELAWARE

IN RE	:	
	:	**Chapter 11**
OWENS CORNING, et al.,	:	
	:	**Case Nos. 00-3837 to 3854 (JKF)**
	:	**(Jointly Administered)**
	:	
Debtors.	:	

NOTICE OF FILING OF SUPPLEMENTAL EXPERT REPORT OF FREDERICK C. DUNBAR

PLEASE TAKE NOTICE that Credit Suisse First Boston ("CSFB"), as Agent for the prepetition institutional lenders to Owens Corning and certain of its affiliates, hereby files the supplemental report of Frederick C. Dunbar (the "Supplemental Report").

PLEASE TAKE FURTHER NOTICE that on December 9, 2004, counsel for CSFB caused to be hand-delivered to the Chambers of the Honorable John P. Fullam, Senior Judge, a copy of this report. A copy of the Supplemental Report also was served on counsel for the Debtors, the Designated Members of the Official Committee of Unsecured Creditors, the Official Committee of Asbestos Claimants, the Legal Representative for Future Claimants, the Ad Hoc Committee of Bondholders and Century Indemnity Company.

Dated: December 9, 2004

LANDIS RATH & COBB LLP

Richard S. Cobb (I.D. No. 3157)
Rebecca L. Butcher (I.D. No. 3816)
919 Market Street, Suite 600
Wilmington, DE 19810
Telephone: (302) 467-4400
Facsimile: (302) 467-4450

-and-

KRAMER LEVIN NAFTALIS & FRANKEL LLP
Kenneth H. Eckstein
Ellen R. Nadler
Gary M. Becker
919 Third Avenue
New York, New York 10022
Telephone: (212) 715-9100
Facsimile: (212) 715-8000

-and-

WEIL, GOTSHAL & MANGES LLP
Martin J. Bienenstock
John J. Rapisardi
767 Fifth Avenue
New York, NY 10153
Telephone: (212) 310-8000
Facsimile: (212) 310-8007

Counsel for Credit Suisse First Boston, as Agent to the Bank Group

UNITED STATES BANKRUPTCY COURT
DISTRICT OF DELAWARE

IN RE	:	
	:	Chapter 11
OWENS CORNING, et al.,	:	
	:	Case Nos. 00-3837 to 3854 (JKF)
	:	(Jointly Administered)
	:	
Debtors.	:	

SUPPLEMENTAL EXPERT REPORT OF FREDERICK C. DUNBAR

DECEMBER 8, 2004

TABLE OF CONTENTS

I. INTRODUCTION AND OVERVIEW 1

II. ADDITIONAL PRODUCT IDENTIFICATION RATE ANALYSIS 2

A. Refining rate to account for indirect product identification 2
1. Computer errors 2
2. Exhibit identification 2
3. Catch-all question 3
B. Analysis of OC's negotiated worksites attached to NSP agreements 4
C. Analysis regarding issues raised by Mr. Tucker 5
D. OC's pre-NSP dismissal rates 6

III. REVISIONS TO NERA'S NON-MALIGNANT DOSE RESPONSE MODEL 8

A. The Mount Sinai and Tulane studies form the basis of the NERA dose response model. 9
B. The predictions of the NERA non-malignant dose response model are consistent with the findings of the Mount Sinai and Tulane Studies 10
C. The NERA non-malignant dose response model produces estimates of asbestos related disease consistent with OC claims experience 11

IV. REVISIONS TO THE FORECAST CALIBRATION 11

A. Adjustment for unsustainable claim surge 11
B. Allocation of unknown disease claims 12

V. REVISIONS TO THE ESTIMATE OF THE PROPORTION OF NON-MALIGNANT CLAIMS THAT ARE UNIMPAIRED 12

A. Impaired claimants with pleural injuries 13
B. Impaired claimants with asbestosis 13

VI. ESTIMATION OF THE PRESENT VALUE OF ASBESTOS LIABILITIES 14

A. Refinements to claims values 14
1. Including NSP claims in the calibration period increases the average claim values used in the forecast 14
B. Inflation rate and present value adjustments 14
1. Inflation 15
2. Discount rate 15

VII. FORECAST BASED ON DISMISSAL RATES PRIOR TO THE NSP 15

I. INTRODUCTION AND OVERVIEW

This supplemental report is filed pursuant to the Stipulation and Protective Order Regarding Expert Discovery of October 12, 2004. My qualifications, writings and prior testimony are contained in my prior report dated October 15, 2004 ("October 15 Report" or "Opening Report"). Additionally, I filed a rebuttal report to the reports of the experts for the Committee and Legal Representative on November 15, 2004 ("Dunbar Rebuttal" or "Rebuttal Report").

In connection with this report, we did the following:

- Refined the product identification analysis;
- refined, through statistical analysis and consultation with medical experts, the model used to estimate the prevalence of non-malignant asbestos-related disease;
- recalibrated the forecast model using the period 1996-2000 adjusted for the unsustainable claim surge in 1999-2000;
- refined the methodology used for reallocating claims against OC where claimants did not specify disease type;
- substituted the Mount Sinai insulator data for the Friedman OC data in applying the Manville medical adjustment;
- expressed settlement values to reflect age and inflation adjustments;
- expressed liability amounts in present discounted value; and
- developed further support to conclusions made in my Opening and Rebuttal Reports.

These analyses respond to a number of the criticisms raised in the supplemental reports filed by Drs. Rabinovitz and Peterson received earlier this week, but I reserve the right to respond to these more fully after more critical review of their writings and backup.[1]

NERA's continued analysis over the last two months has confirmed further my qualitative findings rendered in the October 15, 2004 report. While additional calculations have been made, resulting in some adjustment to the numbers, the underlying concepts and principles remained unaltered. The results are summarized in Exhibit I-1. The nominal dollar

---

[1] NERA still awaits a complete production by Dr. Peterson of his files so that his estimates may be replicated. Today, OC produced a 121 megabyte disk of data regarding deposition and worksites that is relevant to our study of product identification. Also today, Dr. Vasquez was deposed and produced a reconciliation during his deposition which requires study.

value of allowable claims ranges from $2.1 billion to $2.5 billion (based on medical criteria used), with a net present value ranging from $1.3 billion to $1.6 billion.[2]

II. ADDITIONAL PRODUCT IDENTIFICATION RATE ANALYSIS

A. Refining rate to account for indirect product identification

As ongoing work described in my October 15 Report, we conducted additional analysis to assess the rate of valid product identification. One goal of the additional analysis is to assess the probability of having excluded deponents from the rate of valid product identification on the basis of the depositions although they would have been considered valid for reasons other than the transcripts that we have. This is known as the rate of false negatives or Type I errors. To assess this probability, NERA took a random sample of 130 depositions that were coded as false positives (as defined in my earlier report) or contained no mentions of OC or any of its products and read the depositions in their entirety. We coded various information about each deponent, including name, date of birth, worksites, products mentioned, occupations and dates of exposure.

1. Computer errors

NERA first verified that its electronic search had not missed any mentions of OC. To test for this Type I error, NERA randomly selected, for manual review, 49 transcripts that were matched to the OC claims database and which the electronic search had indicated contained no mention of OC or any of its products. Not one example of Type I error was found in the 49 transcripts during this review.

2. Exhibit identification

We also analyzed a set of deposition exhibits because these exhibits are a potential source of identifying OC or its products. It is possible that the deponent would have been classified as valid if he were asked about the exhibits in his deposition. NERA received deposition exhibits for Maryland, Texas, West Virginia and Pennsylvania. For states other than Texas, the exhibits were in paper, rather than electronic format. The exhibits consisted of

---

[2] These values exclude the liability associated with contract claims of $439 million (see October 15 Report, p. 24.).

various document types including interrogatory responses, work history sheets, deposition notices, copied pictures of various asbestos products, medical records and miscellaneous notes. The hard copy exhibits were catalogued into folders by docket number and were then manually tied back to the depositions. (While exhibits displayed docket numbers and deponent names, the social security number was absent). To date, 72 sets of exhibits folders have been linked back to depositions.[3] The exhibits related to these 72 depositions were reviewed for a valid mention of OC or Kaylo. A valid mention was defined as an interrogatory answer, a worksheet or affidavit citing OC or Kaylo. Exhibits that were pictures of various asbestos products, alone, without any accompanying documents (e.g., signature, note, letter) were not defined as valid identification. After reviewing the exhibits, we found that two out of the 72 depositions to which we were able to link exhibits would establish OC product identification.

3. Catch-all question

NERA also considered whether deponents were given the opportunity to allege exposure to OC products in their deposition. To examine this issue, a random sample of deposition transcripts that had no valid mention of OC were manually reviewed to determine whether the deponent was asked the "lock-out" or "catch-all" question regarding whether he had mentioned all the companies and products to which s/he was exposed. Examples of "catch-all" questions include: "Have you told us all the ways you were exposed to asbestos?" or "Are there any other products you were exposed to?" NERA found that 46 percent of the sampled deponents were asked "catch-all" questions in their deposition after going through questions about worksites or at the end of the deposition. Conditional on being asked a catch-all question, we found that a deponent is likely to name an additional product in 3.5 percent of the cases. The probability of a deponent not being asked a catch all question who would provide identification of OC or its products if he had been asked such a question is 1.9 percent.

---

[3] NERA continues to work on linking additional exhibits to the depositions and will update as warranted. Today's production of the OC database may facilitate this process.

B. Analysis of OC's negotiated worksites attached to NSP agreements

Within the last month, OC produced its NSP agreements and related documents where it had apparently negotiated allowing specific worksite identification as a proxy for product identification. So far, we have not been able to verify independently that these are actual worksites containing OC product or the lists included worksites which were suspect as a concession to plaintiffs' attorneys in the settlement negotiations. If the latter, then OC's concession would not necessarily be determinative for purposes of establishing allowable claims in a bankruptcy. Moreover, we have yet to see evidence that merely being present at these sites would have exposed a claimant to an OC asbestos containing product. Nonetheless, we have made an OC claims estimate based on comparing these unique worksites to the deposition transcripts. We assume that this OC concession would continue to operate in bankruptcy; doing so increases the product identification rate to 68 percent.[4]

To modify our earlier estimate of product identification, first we identified all negotiated "approved worksites" by reviewing all the NSP agreements produced and their attached schedule Cs, as well as the recently produced negotiation documents. The allowed time period for exposure was either specified in the document or defaulted to the global "Kaylo period" (1953-1972). The list of over 1,300 worksites is included in the backup to this report. The results are reported in Exhibit II-1.

A computerized analysis of the deposition transcripts for matches to the approved worksite list was conducted, as was a manual sampling process to confirm the results (as had been done for the October 15 Report). To identify false positives (i.e., Type II errors where the program identified the claimant as working at the site when s/he did not), NERA took a random sample of the depositions without valid hits and manually reviewed them to determine the context of the worksite reference. This review found that 423 of the 803 claimants had a mention of at least one worksite.[5]

---

[4] Given that the worksites analysis is over inclusive of indirect evidence of product identification, we do not adjust for exhibits or catch all questions. Even if the exhibits and the catch-all were independent of the worksite, which is unlikely, the adjustments would be less the margin of the error of the product identification estimate.

[5] If a deposition mentioned multiple sites and all but one did not match, it was still considered a valid match.

For this sample NERA was able to identify, from the recently produced OC Oracle database, whether the claim was made before or during the NSP. For pre-NSP claimants, the valid worksite mention was 72 percent, while for NSP claimants it was only 44.5 percent. NERA further tested these results by using the 508 claimants represented by law firms with negotiated approved worksites and whose cases were settled as part of the NSP "Schedule A" claims. Of the depositions with no prior product identification, only 38.1 percent had a valid mention of an approved worksite, a rate lower than either the NSP claimants in general or the non-NSP claimants. We estimate that the product identification rate of Schedule A depositions is 52 percent while the overall identification rate is 68 percent. The lower product identification rate for the Schedule A depositions suggests that these are not of the same quality as the other claims.

C. Analysis regarding issues raised by Mr. Tucker

Mr. Tucker, a former OC regional counsel, testified that Owens Corning used various affirmative defenses in the attempt to "minimiz[e] the cost of litigation both from an indemnity and an administrative point of view."[6] NERA considered whether these defenses required an adjustment to the product identification rate and we concluded they did not. While Mr. Tucker described three specific approaches OC had used to attempt to avoid paying claims with weak product exposure or medical evidence, the claims history shows they were not overly successful.

Mr. Tucker testified that OC would identify claimants with asbestos exposures that pre-dated the Kaylo sales period (1953-1972) and attempt to have the claim withdrawn or otherwise resolved without payment.[7] However, looking at OC's historical claims, for which the last date of reported exposure predated 1953, reveals that a greater than average portion of these claims were paid. (See Exhibit II-2.)

---

[6] Tucker Depo Tr. p. 47:14-16.

[7] See Tucker Depo Tr. at 88-90.

Mr. Tucker testified that OC would negotiate zero settlement values for certain claims that were part of group settlements.[8] Exhibit II-3 shows, however, that the proportion for which zero value settlements were negotiated (11 percent for groups of more than twenty claims) was lower than the overall dismissal rates for other claims filed in the same period (42 percent). Exhibit II-3 also shows that the claims in group settlements prior to the NSP that were dismissed were a small proportion of the total.

Mr. Tucker testified that OC would "try to prevail on the plaintiffs' attorneys to terminate cases that we felt we could convince them did not manifest an asbestos containing injury." (Tucker Depo Tr. at 68.) OC offered the claimants a "green card" stipulation in which OC would give them the opportunity to "re-enter the tort system if they would terminate their pending litigation without prejudice,"[9] which is similar in concept to Pleural Registries. However, the data show that few claims were terminated through green card stipulations or pleural registry designations after 1993 and 1996, respectively. Exhibit II-4 presents the total claims filed by year and the proportion in each year later classified as green card or pleural registry claims. These claims represent a *de minimus* proportion of the total claims filed.

D. OC's pre-NSP dismissal rates

After the implementation in late 1998 of its NSP, OC's claims were resolved as part of an artificial (albeit agreed upon) system that effectively minimized claim rejection rates. This new OC strategy had a dramatic effect on the quality, number and resolution of claims against OC, resulting in a massive surge in claim filings, a reduction in claim quality, a more than doubling of the number of claims paid per year and increased average settlement values for malignancies. In the pre-NSP tort system, OC's lawyers were successful in obtaining case dismissals—over 60 percent of the cases were dismissed in 1996 and 1997. With the implementation of the NSP, dismissals dropped to less than half of one percent. It is likely that

---

[8] See Tucker Tr., p. 68:13-24.

[9] Ibid. at 69.

the majority of claims paid under the NSP would not have satisfied pre-NSP evaluation of product identification or medical evidence.[10]

These conclusions are evidenced by Exhibit II-5, which presents the dismissal rates and costs for OC claims (pre-NSP and NSP) resolved between 1996 and 2000:

- In 1996 and 1997, pre-NSP, the overall dismissal rates were 63 percent and 61 percent respectively.
- The NSP claims, almost all of which were resolved in 1999 and 2000, had dismissal rates of less than half a percent.
- The number of claims resolved pre-NSP and during NSP increased dramatically from about to 20,000 annually to between 67,000 in 1999 and 46,000 in 2000.
- The annual cost of awards rose from $200 million in 1998 to more than $600 million in 1999 (see Exhibit II-6.)

The increase in claims resolved and the decrease in dismissal rates during the NSP are reflected in both OC's malignant and nonmalignant claims experience. However, while the number of malignant claims receiving payment approximately doubled, the number of nonmalignant claim settlements increased *seven*-fold through 1999 (see Exhibit II-7 and Exhibit II-8.)

The NERA forecast of future claims is based on the rate of filings against OC during the years 1996 to 2000, which include the NSP period. A product identification adjustment is applied to identify which claims could qualify for payment based on objective product identification criteria.[11] NERA's estimate that 32 percent of claims would fail to satisfy

---

[10] The NSP dismissal rate was less than half of one percent, yet the quality of the claims had declined. This is reflected in the lower product identification rate for NSP claimants than for pre-NSP claimants in the deposition analysis, described above. Group settlements facilitated awards for lower quality claims, which otherwise would have been unlikely to reach the trial docket. The NSP agreements did not require lung function tests for schedule A claimants, further facilitating successful claims without evidence of impairment.

[11] Claims that also meet the medical standards for diagnosis of asbestos-related disease are then valued using average settlement values for claims resolved with payment during the calibration period. Nonmalignant claims are valued as a multiple of lung cancer settlement averages that correspond to the relative amount of average awards to impaired non-malignant NSP futures claimants compared with average lung cancer NSP futures claimants.

product identification standards is conservative when compared to the 56 percent of claims that were dismissed prior to the NSP. Further, by comparing actual dismissal rates with the product identification rates from the NERA deposition analysis for claims filed in the same period, the product ID adjustment eliminates fewer claims than OC historically dismissed prior to introducing the NSP. Exhibit II-9 presents OC claims' filings and dismissal rates by filing year (allowing for comparison of dismissal rates, which are computed for resolved claims, to all the claims filed in the same period.)

III. REVISIONS TO NERA'S NON-MALIGNANT DOSE RESPONSE MODEL

We have revised the dose-response model used to estimate future rates of non-malignant asbestos-related disease. This model uses standard estimation methods and definitions of non-malignant asbestos disease, is consistent with published epidemiology, and produces estimates that are consistent with the historical experience of Owens Corning.

There are many published studies examining factors that influence the development of non-malignant conditions.[12] At least two of these studies, the Mount Sinai and Tulane Studies, specifically examine the prevalence or onset of non-malignant asbestos-related diseases and have developed dose-response functions.[13] Using the data from the Mount Sinai study, the approaches of both studies and having discussed our extension of their work with authors of both studies (Dr. A. Miller, Dr. H. Weill and Dr. J. Diem), NERA has estimated a dose-response model for non-malignant asbestos related diseases.

---

[12] See, e.g., ATS December 2003 statement for a summary of the literature.

[13] R. Lilis, A. Miller, J. Godbold, E. Chan, I.J. Selikoff, "Radiographic Abnormalities in Asbestos Insulators: Effects of Duration from Onset of Exposure and Smoking. Relationships of Dyspnea With Parenchymal and Pleural Fibrosis," *American Journal of Industrial Medicine*, 20:1-15 (1991) ("Mount Sinai Study"); R.N. Jones, J.E. Diem, J.M. Hughes, Y.Y. Hammad, H.W. Glindmeyer, and H. Weill, "Progression of Asbestos Effects: A Prospective Longitudinal Study of Chest Radiographs and Lung Function," *British Journal of Industrial Medicine*, 46:97-105 (1989) ("Tulane Study").

A. The Mount Sinai and Tulane studies form the basis of the NERA dose response model

The Mount Sinai Study developed three separate logistic regression models to estimate dose responses for non-malignants to explain the prevalence of: (1) asbestosis (parenchymal abnormalities); (2) pleural abnormalities, and (3) dyspnea (shortness of breath, which is a measure of lung function). The regression models explained these conditions using age, smoking, duration of exposure and years since first exposure ("YSFE") characteristics of insulation workers.[14]

The Tulane Study also estimated logit regression models to explain the onset and progression of small opacities (asbestosis) and to explain pleural abnormalities. This study was conducted using medical exam results from a sample of 165 cement plant workers and controlled for the level of exposure by using an estimate of cumulative dose. The average period between follow-up examinations was ten years. These medical exams measured the incidence of asbestosis or pleural abnormalities.

NERA has estimated a similar model using the Mount Sinai data. Rather than estimating separate models for each non-malignant disease and lung function, NERA uses a standard multi-nominal logit analysis to estimate their combined effect.[15] In addition, to capture time dependence and avoid the correlation issue of YSFE and duration of exposure, NERA uses years since last exposure ("YSLE") instead of YSFE. Adopting the Tulane Study approach, cumulative dose (industry average exposure times exposure duration) is used to measure asbestos exposure rather than duration.[16] The NERA model uses the same X-ray classifications as used by the Mount Sinai and Tulane researchers to define non-malignant conditions and uses an impairment definition consistent with the ATS guidance on forced vital capacity below the lower limit of normal.[17]

---

[14] The models were also reported without age, because age and time since first exposure are correlated.

[15] See, e.g., Greene, W.H., "Econometric Analysis," 3rd Edition, 1997, Prentice Hall, Inc., pp. 914-917.

[16] Industry average exposure intensities over time are from Nicholson W.J., G. Perkel, and I. Selikoff "Occupational Exposure to Asbestos: Population at Risk and Projected Mortality – 1980-2030," American Journal of Industrial Medicine, 3:259-311 (1982).

[17] Official Statement of the American Thoracic Society "The Diagnosis of Non-Malignant Disease Related to Asbestos," March 1986.

NERA estimates non-malignant prevalence using a model which classifies the exposed population into three categories: (1) those with either pleural abnormalities and/or asbestosis who are impaired;[18] (2) those with either pleural abnormalities and/or asbestosis who are unimpaired;[19] and (3) those without either pleural abnormalities or asbestosis. This model, described in greater detail in Appendix A, allows direct estimation of the prevalence of impaired non-malignant claims for any exposed population. It captures the combined effects of cumulative dose, smoking and time since last exposure on asbestos related disease and impairment.[20]

B. The predictions of the NERA non-malignant dose response model are consistent with the findings of the Mount Sinai and Tulane Studies

The NERA dose-response model explains the prevalence of non-malignant disease in terms of cumulative dose, smoking and time since last exposure. The estimated effect of each of these factors on the prevalence of disease is similar to the effects reported in the Mount Sinai and Tulane studies (see Exhibit III-1a. and Exhibit III-1b).

The NERA model also produces estimates of rates of asbestos related disease that are consistent with the rates observed in the Mount Sinai and Tulane studies. A comparison of the predicted and actual prevalence for the insulator sample is presented in Exhibit III-2a and Exhibit III-2b. This comparison shows that the model fits the data well. We examined the model fit for insulators with different levels of cumulative exposure and time since last exposure. These comparisons helped inform the process of testing alternative specifications of the model. The NERA results were also compared to the Tulane Study and produced similar incidence of non-malignant disease over the approximately 10 year follow-up period.

---

[18] Pulmonary function test score for forced vital capacity ("FVC") of less that eighty percent of predicted.

[19] Pulmonary function test score for FVC of greater than or equal to eighty percent of predicted.

[20] Prevalence is cumulative incidence. The prevalence of impaired non-malignants is estimated using the natural logarithm of cumulative dose. This ensures that prevalence approaches zero at low doses. This attribute of the model specification is important when predictions are made for exposed populations with low doses.

C. The NERA non-malignant dose response model produces estimates of asbestos related disease consistent with OC claims experience

NERA further tested the validity of the dose response model by comparing the actual OC claims experience during the 1996-2000 calibration period[21] with that estimated by the model. This comparison shows that the model appropriately captures the effect of time since last exposure on the number of claims.

The model estimates were produced using the forecast population previously described with the addition of predicted rates of smoking in each year.[22] This is the same procedure used to forecast future claims in my October 15 Report.[23]

IV. REVISIONS TO THE FORECAST CALIBRATION

A. Adjustment for unsustainable claim surge

In the October 15 Report, I concluded that the surge in claims against OC occurring after the NSP agreements (1999-2000) was unsustainable.[24] NERA has completed its analysis to remove the surge effect from the historical data and I reported such in my November 15 Rebuttal Report. Once this adjustment is made, there is no increase in filing rates after 1998.

---

[21] The claims experience was adjusted to reallocate claims with unknown disease and to account for the surge in claims during the NSP period. The adjustments are described further below. The year since last exposure for actual claims that were missing this last exposure date is estimated as the earlier of the following four dates: the year in which they reached age 65 (a proxy for year of retirement); 1979 (the last year in which significant asbestos exposure occurred); date of death; or filing date.

[22] Actual historical and predicted future rates of smoking are obtained from the following sources: Garfinkel, Lawrence, "Trends in Cigarette Smoking in the United States, *Preventive Medicine*, 1997; "Morbidity and Mortality Weekly Report," Department of Health and Human Services Centers for Disease Control and Prevention, May 28, 2004; July 26, 2002; December 26, 1997; "Cigarette Smoking Among Adults—United States, 1992" Department of Health and Human Services Centers for Disease Control and Prevention, May 20, 1994. For each cohort from which the exposed population is composed the prevalence of impaired non-malignant disease is estimated for a current smoker and a current non-smoker. The weighted average of these values is then computed and attributed to the cohort based on the estimated rate of smoking in that year.

[23] Future non-malignant claims are estimated from the prevalence estimates by applying a constant claiming rate, computed over the calibration period 1996-2000, by age cohort.

[24] We have previously reported the observation that many of the claims during the NSP period had much longer lags between the date of medical diagnosis and the date of submitting a claim to OC. Additionally, the NSP agreements provided financial incentives for plaintiffs' law firms to clear their claims inventories and the claims data provide evidence of a surge.

We now use claims over the period of 1996-2000, as adjusted, for computing claims filing rates (instead of the 1996-1998 period used in my October 15 Report).

B. Allocation of unknown disease claims

In my October 15 Report, claims with unknown disease were assigned a disease based on the claims experience of the Manville Trust, for claims that initially had an unknown disease but for which diseases were identified over time. We have since determined that a more direct and reliable approach is to assign diseases to these individual claims based on the classifications observed for the same claims in the Manville Trust[25] and Center for Claims Resolution ("CCR") databases. If either of those two databases had a specified disease, it was "added" to the OC database; if both databases had conflicting diseases or the claimant filed multiple claims, the more serious disease was "added" to the OC database. The claims that remained unknown were designated non-malignant claims, and are divided between asbestosis and pleural injuries based on their historical proportions in the OC database,[26] These procedures are similar to those employed by Dr. Rabinovitz in her report. Exhibit IV-1 presents the historical filings against OC by file year and disease after these adjustments have been made.[27]

V. Revisions to the Estimate of the Proportion of Non-Malignant Claims that are Unimpaired

Since the October 15 Report, NERA has had an opportunity to study further and refine its Manville Adjustment.[28]

---

[25] The Manville database is a particularly rich source of information both because almost all asbestos claimants claim against Manville, and because the data is much more current than the OC database, which stopped updating its information with its 2000 bankruptcy.

[26] However, claimants with malignant diseases have a strong incentive to provide accurate information about their disease because of the much greater settlement values for malignant claims.

[27] As well as other adjustments described in the October 15 Report.

[28] See October 15 Report, pp. 20-21.

A. Impaired claimants with pleural injuries

In my October 15 report, we used the Friedman study results in my Manville audit adjustment and in my Johns Hopkins study adjustment forecast approaches to estimate the proportion of pleural plaintiffs that are impaired.[29] We have since determined that the Mount Sinai data on insulators can be used for this purpose. In forecasts where the Manville audit and Johns Hopkins study results on x-ray readings are used, we have used the 38 percent impairment rate computed for the Mount Sinai sample instead of Friedman's result (see Exhibit V-1.) Relying on the Mount Sinai data, however, likely overestimates the presence of impairment of OC's claimants because this sample is composed of insulators who were very heavily exposed to asbestos and more likely to be impaired than future asbestos claimants.

B. Impaired claimants with asbestosis

In my October 15 report, the Manville adjustment implicitly treated 100 percent of individuals with asbestosis as impaired. It is well known that many asbestotics suffer from no impairment. The Mount Sinai sample provides a means to adjust the asbestosis impairment rate. Using the distribution of ILO scores in the OC database to re-weight the Mount Sinai sample impairment rates results in an estimate of a 41 percent impairment rate among OC claimants with asbestosis (see Exhibit V-1.)[30]

---

[29] See October 15 Report, pp 20-21.

[30] The data on Mount Sinai's sample includes information on ILO scores (which provide evidence of asbestosis and its severity) and impairment, as measured by PFT tests. NERA adjusted for the insulator (heavily exposed) population, using the Mount Sinai data to estimate the fraction of impaired individuals at each different level of severity measured by their ILO scores. The OC database has ILO scores for some claimants (provided by plaintiff counsel B-readers and not audited for validity) while many OC claimants provide no x-ray evidence. Claimants with severe asbestosis have a greater incentive to provide x-rays. The Mount Sinai sample have, on average, more severe cases of asbestosis. To account for this difference, we reweighted the impairment rates from the Mount Sinai sample using the distribution of ILO scores in the OC database. We have not adjusted for biases in reported ILO scores in the OC database; accordingly the estimate is conservative.

VI. ESTIMATION OF THE PRESENT VALUE OF ASBESTOS LIABILITIES

A. Refinements to claims values

The historical settlement values used to value future claims are expressed in 2000 dollars using a CPI adjustment for inflation and are reported by age group. We adjust these values for the effect of punitive damages as described in my October 15 Report.

The average settlement values used to value future claims are presented in Exhibit VI-1. These values are computed for all claims that were resolved for a non-zero settlement amount during the period 1996 to 2000 after reallocating unknown disease claims and adjusting the claim filing dates for the effect of the surge in claims. For mesothelioma and lung cancer claimants there is a large and statistically significant drop in settlement values for older claimants.

1. Including NSP claims in the calibration period increases the average claim values used in the forecast

The average lung cancer and mesothelioma settlement values increased during the NSP period. Exhibits VI-2a though VI-2d present the average values for claims resolved in the NSP and outside the NSP by settlement year. The average values of non-malignant claims declined by about 22 percent (between 1996 and 2000), in part reflecting the lower quality of claims that OC agreed to pay. Corresponding to the decrease in quality, the number of non-malignant claims settled each year during the NSP increased by 37 percent. However the decline in average values of non-malignant claims is not reflected in the values used to estimate future claims because the value of future impaired non-malignant claims is estimated as a percent of lung cancer values. As explained in my October 15 Report, this was done to reflect the relatively higher values that OC agreed to pay impaired non-malignant claims compared to lung cancer claims in the NSP agreements.

For non-NSP claims, Exhibits VI-2a though VI-2d show that there was not a strong trend in settlement values between 1996 and 2000 after adjusting for inflation.

B. Inflation rate and present value adjustments

My October 15 Report presented the estimation of asbestos liability without inflation or discounting. This report presents the results both ways.

1. Inflation

NERA has calculated the inflation and discount rates to adjust the nominal dollar costs to a net present value in 2000. The inflation rate used is 2.17 percent, an objective, market based measure of inflation expectations in 2000. By matching an inflation-protected note (US Treasury TIPS) adjusted for CPI inflation[31] to a comparable non-inflation adjusted Treasury note, one can obtain an estimate of what financial markets expect inflation to be in the future. For a 10-year inflation-protected Treasury note auctioned in 2000, the yield to maturity was 2.17 percent less than that of a matched 10-year standard treasury note. This yield spread measures financial market expectations of average inflation over the following ten years and we apply this rate of inflation to the forecast cash-flows. For the calculation purposes of cash flows, I assume, as does Dr. Peterson, that claims will be paid two years after filing, or, for the pending claims, two years after the petition year.

2. Discount rate

In my Rebuttal Report I discussed the appropriate discount rate for evaluating the net present value of OC's asbestos liabilities and have applied that analysis to my estimates of future asbestos liabilities.[32] Using a conservative discount rate (the corporate single A-rated bond rate), as of October 5, 2000, the yield to maturity on the corporate A-rated bond portfolio of instruments with maturity greater than 15 years was 8.12 percent. The 8.12 percent rate is used to express the asbestos liabilities in present value terms.

VII. FORECAST BASED ON DISMISSAL RATES PRIOR TO THE NSP

To assess the effect of the deposition product identification analysis on the overall forecast we compared them to the historical dismissal rates in Exhibit II-9. Substituting OC's historical dismissal rates for non-NSP claims from 1996-2000 for the product identification rates results in a similar forecast.[33]

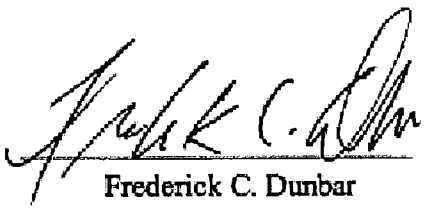
---

[31] Future interest payments of these bonds are linked to inflation based on future values of the CPI index.

[32] See Dunbar Rebuttal p.9-12.

[33] Dismissal rates are somewhat correlated with the quality of medical evidence for non-malignant claims but are not affected for malignant claims. However, dismissal rates change by less than one percentage point when the effect of using high volume doctors is taken into account. The use of high volume doctors – those studied in the Manville audit – is an indicator of high rates of mis-diagnoses, as the results of the audit reveal.

To assess the effect of imposing the results of the deposition analysis on the overall forecast we present a version of the three forecast scenarios in which instead of using the product identification rates we apply the historic dismissal rates from 1996-2000. The results of this analysis are shown in Exhibit VII-1.



Frederick C. Dunbar

Exhibit I-1
Owens Corning
NERA Forecast
Claims Forecast Ends in 2050
Calibration period of 1996-2000:[1] Product Identification Including Negotiated Worksites

	Allowable Claims[2]			Value of Allowable Claims[3]			
Adjustment Based On	Pending[4]	Forecast 2000-2050[5]	Pending Plus Forecast	Pending	Forecast 2000-2050	Pending Plus Forecast	Discounted
(1)	(2)	(3)	(4) (2) + (3)	(5)	(6)	(7) (5) + (6)	(8)
Manville Audit[6]	28,004	79,044	107,048	$.58 B	$1.9 B	$2.47 B	$1.57 B
Dr. Friedman's Study[7]	17,363	50,466	67,829	$.48 B	$1.61 B	$2.09 B	$1.31 B
Johns Hopkins Study[8]	22,352	77,971	100,323	$.52 B	$1.89 B	$2.41 B	$1.52 B

Notes:

[1] Filing rate calculated over 1996-2000.

[2] All scenarios apply 68% valid product ID to historic claims. They apply 60% product ID to pending NSP claims and 80% to pending non-NSP claims. 11.3% of Lung Cancer and Other Cancer claims were downgraded to no disease, following the Manville Audit results.

[3] Forecast priced using 1996-2000 average settlement values, by age category, expressed in 2000 dollars, adjusted for punitive damages. Impaired Non-Malignants prices as 27% of Lung Cancer average.

[4] Pending claim counts are based on NERA's analysis of the Oracle database. Pending claims include NSP settlements that have not been finalized (i.e. those lacking either a release or an approval), as well as non-NSP claims that have not been resolved.

[5] Forecast from October 5, 2000 to December 31, 2050. Allocation of unknown claims based on data from the Manville Trust and CCR databases. Filing dates adjusted for unsustainable claims surge in 1999-2000.

[6] Manville audit results used to reallocate asbestosis to pleural and no disease, and pleural to no disease. Analysis of Dr. Selikoff's data used to estimate fraction of impaired pleurals (38%).

[7] 13.3% of all non-malignant claims are taken as impaired following Dr. Friedman's study.

[8] Following Johns Hopkins study 95.3% of asbestosis re-classified as no underlying disease. Analysis of Dr. Selikoff's data used to estimate fraction of impaired pleurals (38%).

Exhibit II-1
Product Identification Results
by NSP Status[1]

	NSP (1)	Non-NSP (2)	Total (3)
Number of Depositions that Match OC Database	2,515	2,422	4,937
Matched Depositions Containing a Valid Product or Company Identification	719	653	1,372
Estimate of Depositions Containing a Valid Approved Worksite Identification	799	1,273	2,072
Valid Product ID	60%	80%	
Weighted Overall Valid Product ID[2]			68%
95% Margin of Error[3]	3%	4%	3%

Notes and Sources:

[1] Depositions are matched to Oracle database by SSN only.
If a claimant has one valid deposition, that claimant is assumed to have a valid claim.
293 claimants with both NSP and non NSP claims are assumed to be NSP.

[2] Weighted by percentage of NSP claims filed 1996 to 2000.

[3] Calculated using Monte Carlo simulation.

Exhibit II-2
Owens Corning
Claims of Plaintiffs With Last Exposure Prior to 1953
1990-2000, by Filing Date

Year	Number of Claims Filed with Last Exposure Prior to 1953	Number Paid	Percentage Paid
(1)	(2)	(3)	(4) [(3)/(2)*100%]
1990	2,636	2,029	77.0%
1991	2,547	1,876	73.7%
1992	6,119	4,434	72.5%
1993	4,369	3,275	75.0%
1994	5,728	3,916	68.4%
1995	6,908	4,245	61.5%
1996	4,684	3,262	69.6%
1997	5,122	3,467	67.7%
1998	3,417	2,141	62.7%
1999	3,667	2,058	56.1%
2000	644	207	32.1%

Notes and Sources:

Based on the iCMS database.

Paid claims are claims with non-zero value, excluding claims still pending.

Exhibit II-3
Owens Corning
Rate of Dismissals in Group Settlements 1990-1998

	Claims (1)	Dismissed Number (2)	Dismissed Percentage (3) [(1)/(2)]
All Claims	108,862	45,213	42%
Claims with a case group name	28,651	9,137	32%
Claims in groups of 20 or more	9,823	5,430	55%
of which, entire groups dismissed amount to:	4,872	4,872	100%
Claims in groups of 20 or more, if not all claims in group were dismissed	4,951	558	11%

Notes and Sources:

Based on the iCMS database.

Claims are considered part of the same group if they have the same case group name in the database.

Exhibit II-4
Owens Corning
Use of Green Cards and Pleural Registries
1990-2000, by Filing Date

Year	Number of Claims Filed	Number of Green Cards	Green Card Percentage	Number of Pleural Registry Claims	Pleural Registry Percentage
(1)	(2)	(3)	(4) [(3)/(2)*100%]	(5)	(6) [(5)/(2)*100%]
1990	22,111	994	4.5%	460	2.1%
1991	26,101	881	3.4%	221	0.8%
1992	31,394	579	1.8%	251	0.8%
1993	31,867	4,515	14.2%	90	0.3%
1994	34,422	12	0.0%	150	0.4%
1995	57,646	3	0.0%	332	0.6%
1996	37,328	35	0.1%	98	0.3%
1997	42,644	5	0.0%	44	0.1%
1998	40,030	5	0.0%	9	0.0%
1999	51,660	5	0.0%	0	0.0%
2000	41,598	0	0.0%	0	0.0%

Notes and Sources:

Based on the iCMS database.

2000 numbers are for the partial year through October 5th.

Exhibit II-5
Owens Corning
Dismissal Rates and Number of Claims Paid
1996-2000, by Closed Date

Year	Claims Resolved			Dismissal Rates			Number of Claims Paid		
	NSP	Non-NSP	Overall	NSP	Non-NSP	Overall	NSP	Non-NSP	Overall
(1)	(2)	(3)	(4) [(2)+(3)]	(5)	(6)	(7)	(8)	(9)	(10) [(8)+(9)]
1996	95	22,457	22,552		62.8%	62.5%	74	8,359	8,433
1997	299	21,531	21,830		61.6%	60.7%	256	8,271	8,527
1998	481	10,018	10,499		15.7%	15.0%	465	8,445	8,910
1999	47,977	19,064	67,041	0.3%	67.4%	19.4%	47,849	6,214	54,063
2000	42,255	4,622	46,877	0.1%	29.1%	2.9%	32,065	2,491	34,556
Overall	91,107	77,692	168,799	0.2%	55.5%	25.6%	80,709	33,780	114,489
1996-1998	875	54,006	54,881	0.0%	53.6%	52.7%	795	25,075	25,870

Notes and Sources:

The dismissal rate is defined as the number of claims filed that were closed with zero value divided by the number of claims closed. Claims that are still open and trial verdicts are excluded from the calculation of dismissal rates.

Disease categorizations reflect NERA's reallocation of unknown disease claims.

Numbers for the partial year 2000 have been scaled up to annual equivalents.

Exhibit II-6
Owens Corning
Total Values of Paid Claims
1990-2000, by Closed Date
(millions of dollars)

Year	Mesothelioma	Lung Cancer	Other Cancer	Malignant Claims	Nonmalignant Claims	All Claims
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1990	$28	$24	$3	**$55**	$101	**$156**
1991	$49	$40	$4	**$93**	$83	**$176**
1992	$59	$49	$6	**$115**	$199	**$314**
1993	$38	$39	$6	**$83**	$148	**$231**
1994	$28	$26	$5	**$58**	$90	**$148**
1995	$63	$42	$6	**$111**	$122	**$233**
1996	$62	$32	$4	**$98**	$63	**$160**
1997	$110	$35	$4	**$149**	$72	**$221**
1998	$101	$34	$4	**$140**	$60	**$200**
1999	$223	$105	$15	**$343**	$318	**$661**
2000	$204	$94	$10	**$308**	$227	**$535**

Notes and Sources:

Average is for claims resolved for non-zero amount, excluding trial verdicts.
Values have been adjusted for inflation to year 2000 dollar equivalents.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
2000 amounts are for the partial year through October 5th.

Exhibit II-7
Owens Corning
Dismissal Rates and Number of Claims Paid
1996-2000, by Closed Date
Nonmalignant Claims Only

	Claims Resolved		Dismissal Rates			Number of Claims Paid		
Year	NSP	Non-NSP	NSP	Non-NSP	Overall	NSP	Non-NSP	Overall
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1996	64	20,084	26.6%	67.0%	66.9%	47	6,623	6,670
1997	213	19,121	17.4%	65.4%	64.9%	176	6,611	6,787
1998	296	7,858	2.7%	16.2%	15.7%	288	6,585	6,873
1999	45,034	16,623	0.3%	70.9%	19.3%	44,911	4,843	49,754
2000	38,841	3,548	0.1%	34.0%	2.9%	38,805	2,343	41,149
1996-2000	84,448	67,234	0.3%	59.8%	26.7%	84,227	27,005	111,233
1996-1998	573	47,063	10.8%	57.9%	57.3%	511	19,819	20,330

Notes and Sources:

The dismissal rate is defined as the number of claims filed that were closed with zero value divided by the number of claims closed.
Claims that are still open and trial verdicts are excluded from the calculation of dismissal rates.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
Numbers for the partial year 2000 have been scaled up to annual equivalents.

Exhibit II-8
Owens Corning
Dismissal Rates and Number of Claims Paid
1996-2000, by Closed Date
Malignant Claims Only

Year	Claims Resolved		Dismissal Rates			Number of Claims Paid		
	NSP	Non-NSP	NSP	Non-NSP	Overall	NSP	Non-NSP	Overall
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1996	31	2,373	13%	27%	27%	27	1,736	1,763
1997	86	2,410	7%	31%	30%	80	1,660	1,740
1998	185	2,160	4%	14%	13%	177	1,860	2,037
1999	2,943	2,441	0%	44%	20%	2,938	1,371	4,309
2000	3,414	1,074	0%	13%	3%	3,410	936	4,346
1996-2000	6,659	10,458	0%	28%	17%	6,632	7,563	14,195
1996-1998	302	6,943	6%	24%	24%	284	5,256	5,540

Notes and Sources:

The dismissal rate is defined as the number of claims filed that were closed with zero value divided by the number of claims closed.
Claims that are still open and trial verdicts are excluded from the calculation of dismissal rates.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
Numbers for the partial year 2000 have been scaled up to annual equivalents.

Exhibit II-9
Owens Corning
Adjustment to Dismissal Rates Reflecting Product Identification Rates
1996-2000, by Filing Date

	Claims Filed		Analysis of Resolved Claims: Claims Resolved		Analysis of Resolved Claims: Dismissal Rates		Invalid Product ID Rates		
Year	NSP	Non-NSP	NSP	Non-NSP	NSP	Non-NSP	NSP	Non-NSP	Overall [1]
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1996	27,104	18,087	17,638	13,432	0.1%	68.0%	39.63%	20.48%	32%
1997	22,457	18,256	15,149	5,613	0.2%	70.6%	39.63%	20.48%	31%
1998	25,807	14,182	15,663	1,874	0.1%	56.1%	39.63%	20.48%	33%
1999	28,963	12,544	10,837	388	0.1%	10.3%	39.63%	20.48%	34%
2000	20,266	18,551	3,979	45	0.0%	2.9%	39.63%	20.48%	30%
96-00	124,597	81,620	63,266	21,352	0.1%	66.5%	39.63%	20.48%	32%
96-98	75,368	50,525	48,450	20,919	0.1%	67.6%	39.63%	20.48%	32%

Notes and Sources:

still open are excluded from the calculation of dismissal rates.

Disease categorizations reflect NERA's reallocation of unknown disease claims.

Numbers for the partial year 2000 have been scaled up to annual equivalents.

Invalid product ID rates are based on NERA analysis of depositions.

[1] Overall product ID rates are weighted by number of claims filed.

Exhibit III - 1a
Owens Corning
Dose-Response Model for Non-Malignant Diseases
Parameter Estimates

Equation	Variable	Coefficient	SE	T-Stat	P-Value
(1)	(2)	(3)	(4)	(5)	(6)
Impaired	Ln(Dose)	1.89	0.16	11.54	0.00
	Square Root (YSLE)	0.28	0.05	5.66	0.00
	Current Smoker	0.71	0.15	4.61	0.00
	Constant	-9.98	0.90	-11.07	0.00
Unimpaired	Ln(Dose)	1.02	0.13	7.82	0.00
	Square Root (YSLE)	0.09	0.05	1.80	0.07
	Current Smoker	0.29	0.15	2.00	0.05
	Constant	-4.51	0.71	-6.38	0.00

Number of Observations	2243
Log-Likelihood	-2152
Pseudo - R2	0.049

Notes and Sources

[1] Results are for a multinomial logit model estimated on the Selikoff insulator data. The model is described in Appendix A.

Exhibit III - 1b
Owens Corning
Dose-Response Model for Non-Malignant Diseases
Marginal Effect Estimates

Probability of Disease (Y)	Independent Variable (X)	Marginal Effect (dY/dX)	SE of Marginal Effect	Z-Stat	P-Value
(1)	(2)	(3)	(4)	(5)	(6)
Healthy	Ln(Dose)	-0.2863	0.0285	-10.0415	0.0000
	Square Root (YSLE)	-0.0286	0.0115	-2.4780	0.0132
	Current Smoker	-0.0902	0.0354	-2.5493	0.0108
Impaired	Ln(Dose)	0.0962	0.0099	9.7335	0.0000
	Square Root (YSLE)	0.0160	0.0039	4.0523	0.0001
	Current Smoker	0.0429	0.0112	3.8418	0.0001
Unimpaired	Ln(Dose)	0.1901	0.0283	6.7255	0.0000
	Square Root (YSLE)	0.0126	0.0104	1.2121	0.2255
	Current Smoker	0.0473	0.0316	1.4968	0.1344

Notes and Sources

[1] Results are for a multinomial logit model estimated on the Selikoff insulator data. The model is described in Appendix A.

[2] Marginal effects in a multinomial logit depend on the values of the independent variables.

The above marginal effects are computed with the independent variables set to:

Ln(Dose)	3.91
Sqrt(YSLE)	1.25

Current Smoker is a discrete variable. Marginal effect is calculated as p(Yi | cur_smoker = 1) - p(Yi | cur_smoker = 0).

Exhibit III - 2a
Owens Corning
Dose-Response Model for Non-Malignant Diseases
Actual and Predicted Prevalence of Impairment

Selikoff Insulator Population

Dose[2]	YSLE[2] 0	1	1-3	4-6	7-10	11-15	16-25	26+	All
0-10	2	0	0	0	0	0	0	0	2
10-50	12	6	1	2	0	1	1	2	25
51-100	52	15	2	2	4	0	4	4	83
100-150	57	9	3	11	6	3	17	4	110
151-200	142	44	19	15	10	11	24	14	279
201-250	264	105	28	42	44	34	14	7	538
251-300	308	166	47	41	21	22	12	2	619
301+	128	76	88	115	99	62	18	1	587
All	965	421	188	228	184	133	90	34	2243

Actual Prevalence[3]

Dose[2]	YSLE[2] 0	1	1-3	4-6	7-10	11-15	16-25	26+	All
0-10	0.0%	-	-	-	-	-	-	-	0.0%
10-50	8.3%	0.0%	0.0%	0.0%	-	0.0%	100.0%	100.0%	16.0%
51-100	11.5%	6.7%	0.0%	50.0%	0.0%	-	25.0%	25.0%	12.0%
100-150	24.6%	33.3%	33.3%	36.4%	33.3%	0.0%	41.2%	25.0%	29.1%
151-200	26.8%	18.2%	57.9%	26.7%	40.0%	18.2%	25.0%	28.6%	27.6%
201-250	23.9%	30.5%	57.1%	40.5%	40.9%	44.1%	50.0%	71.4%	32.2%
251-300	34.7%	30.7%	46.8%	48.8%	52.4%	36.4%	75.0%	0.0%	36.8%
301+	39.8%	38.2%	54.5%	57.4%	51.5%	61.3%	55.6%	100.0%	50.1%
All	29.0%	29.5%	52.1%	49.1%	46.7%	47.4%	45.6%	41.2%	36.5%

Predicted Prevalence[4]

Dose[2]	YSLE[2] 0	1	1-3	4-6	7-10	11-15	16-25	26+	All
0-10	0.4%	-	-	-	-	-	-	-	0.4%
10-50	4.1%	5.8%	10.4%	5.4%	-	9.6%	13.0%	17.1%	6.5%
51-100	10.6%	13.9%	16.3%	9.8%	13.9%	-	24.3%	26.2%	12.9%
100-150	18.3%	23.5%	22.2%	25.2%	27.7%	23.5%	35.1%	48.7%	23.9%
151-200	24.7%	28.6%	31.0%	31.3%	37.2%	40.5%	43.8%	46.6%	29.9%
201-250	28.7%	34.1%	35.4%	38.9%	43.0%	45.9%	51.0%	53.4%	34.0%
251-300	33.3%	37.4%	40.8%	43.0%	46.4%	49.4%	55.2%	59.8%	37.1%
301+	38.3%	42.7%	48.0%	50.1%	54.2%	58.5%	61.5%	66.5%	48.2%
All	28.9%	35.0%	41.6%	43.6%	48.0%	51.1%	47.1%	45.5%	36.5%

Notes and Sources

[1] Selikoff Insulator Population is used in Lilis, R., A. Miller, J. Goldblod, E. Chan and I. J. Selikoff, (1991b) ``Radioraphic Abnormalities in Asbestos Insulators: Effects of Duration From Onset of Exposure and Smoking. Relationships of Dyspnea With Parenchymal and Pleural Fibrosis'' American Journal of Industrial Medicine, vol. 20, pp. 1-15.

[2] Dose is defined as the fibers per milliliter per year summed over the number of exposed years.
YSLE is defined as the number of years since the patient was employed in the at-risk workforce.

[3] Actual Prevalence is the number of insulators that are classified as impaired.
Predicted Prevalence is the expected number of impaired insulators as forecast by the model.

Exhibit III - 2b
Owens Corning
Dose-Response Model for Non-Malignant Diseases
Actual and Predicted Prevalence of Unimpairment

Selikoff Insulator Population

Dose[2]	YSLE[2] 0	1	1-3	4-6	7-10	11-15	16-25	26+	All
0-10	2	0	0	0	0	0	0	0	2
10-50	12	6	1	2	0	1	1	2	25
51-100	52	15	2	2	4	0	4	4	83
100-150	57	9	3	11	6	3	17	4	110
151-200	142	44	19	15	10	11	24	14	279
201-250	264	105	28	42	44	34	14	7	538
251-300	308	166	47	41	21	22	12	2	619
301+	128	76	88	115	99	62	18	1	587
All	965	421	188	228	184	133	90	34	2243

Actual Prevalence[3]

Dose[2]	YSLE[2] 0	1	1-3	4-6	7-10	11-15	16-25	26+	All
0-10	0.0%	-	-	-	-	-	-	-	0.0%
10-50	25.0%	16.7%	100.0%	0.0%	-	0.0%	0.0%	0.0%	20.0%
51-100	44.2%	40.0%	50.0%	0.0%	50.0%	-	50.0%	75.0%	44.6%
100-150	54.4%	44.4%	66.7%	54.5%	66.7%	100.0%	41.2%	25.0%	52.7%
151-200	49.3%	65.9%	42.1%	66.7%	40.0%	45.5%	62.5%	50.0%	53.0%
201-250	56.4%	57.1%	28.6%	47.6%	47.7%	47.1%	35.7%	28.6%	52.2%
251-300	50.6%	54.8%	38.3%	36.6%	33.3%	50.0%	25.0%	50.0%	48.8%
301+	50.8%	50.0%	36.4%	36.5%	43.4%	29.0%	44.4%	0.0%	41.9%
All	51.5%	54.4%	37.2%	40.8%	44.0%	39.8%	44.4%	41.2%	48.0%

Predicted Prevalence[4]

Dose[2]	YSLE[2] 0	1	1-3	4-6	7-10	11-15	16-25	26+	All
0-10	10.7%	-	-	-	-	-	-	-	10.7%
10-50	30.9%	35.0%	41.9%	32.8%	-	39.6%	38.9%	40.3%	33.9%
51-100	45.4%	46.4%	46.2%	41.8%	44.2%	-	46.7%	45.8%	45.5%
100-150	51.8%	50.8%	50.3%	49.3%	49.2%	48.6%	46.1%	39.3%	49.9%
151-200	53.5%	51.8%	50.7%	50.3%	47.2%	45.3%	43.0%	41.5%	50.8%
201-250	53.2%	50.5%	49.6%	47.8%	45.2%	43.3%	39.7%	38.0%	50.2%
251-300	52.1%	49.7%	47.6%	46.1%	43.8%	41.7%	37.6%	34.1%	49.7%
301+	50.5%	47.5%	44.0%	42.4%	39.3%	36.1%	33.7%	29.8%	43.6%
All	51.7%	49.4%	46.5%	44.8%	42.1%	39.9%	40.6%	40.2%	48.0%

Notes and Sources

[1] Selikoff Insulator Population is used in Lilis, R., A. Miller, J. Goldblod, E. Chan and I. J. Selikoff, (1991b) ``Radioraphic Abnormalities in Asbestos Insulators: Effects of Duration From Onset of Exposure and Smoking. Relationships of Dyspnea With Parenchymal and Pleural Fibrosis'' American Journal of Industrial Medicine, vol. 20, pp. 1-15.

[2] Dose is defined as the fibers per milliliter per year summed over the number of exposed years.
YSLE is defined as the number of years since the patient was employed in the at-risk workforce.

[3] Actual Prevalence is the number of insulators that are classified as impaired.
Predicted Prevalence is the expected number of impaired insulators as forecast by the model.

Exhibit IV-1
Owens Corning
Historical Number of Claims After Reallocation of Unknown Disease Claims and Adjustments for the Surge in Claims Caused by the NSP[1]

Year Filed	Mesothelioma (1)	Lung Cancer (2)	Other Cancer (3)	Asbestosis (4)	Pleural (5)	Overall (6) sum[(1)..(5)]
1966 - 1985	2,023	3,056	939	27,131	7,776	**40,924**
1986	581	1,379	392	13,755	5,164	**21,271**
1987	908	2,245	695	12,910	8,991	**25,750**
1988	676	1,745	565	14,756	10,121	**27,863**
1989	1,128	2,768	886	20,574	15,270	**40,625**
1990	805	1,570	399	10,240	6,803	**19,817**
1991	827	1,729	599	9,919	8,612	**21,685**
1992	839	1,788	510	16,038	10,940	**30,115**
1993	771	1,517	405	14,380	9,096	**26,170**
1994	1,101	1,866	496	13,055	12,760	**29,278**
1995	1,072	2,659	1,019	28,372	23,893	**57,015**
1996	1,011	1,812	617	15,917	25,834	**45,191**
1997	945	1,598	500	12,323	25,347	**40,713**
1998	980	1,431	571	8,350	28,657	**39,989**
1999	979	1,549	462	11,052	27,465	**41,507**
2000	737	893	348	17,427	19,273	**38,678**
Total	**15,383**	**29,605**	**9,403**	**246,199**	**246,001**	**546,592**

Notes and Sources:
ICMS Database

[1] For details about unknown disease claims allocation see the Dunbar Report, October 15, 2004, p.20.

Exhibit V-1
Owens Corning
Impairment Rates by and ILO Score in Mount Sinai Insulator Data

		ILO Score									
Impaired		**1/0**	**1/1**	**1/2**	**2/1**	**2/2**	**2/3**	**3/2**	**3/3**	**3/4**	**All Observations**
		(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10) sum[(1)..(9)]**
Unimpaired	(i)	275	313	47	38	38	15	11	7	1	**745**
Impaired	(ii)	132	226	62	39	87	17	21	25	6	**615**
All Observations	**(iii)=(i)+(ii)**	**407**	**539**	**109**	**77**	**125**	**32**	**32**	**32**	**7**	**1,360**
Unimpairment Rate	(iv)=(i)/(iii)	0.68	0.58	0.43	0.49	0.30	0.47	0.34	0.22	0.14	0.55
Fraction of OC Asbestosis Claimants[1]	(v)	41.31%	42.41%	9.38%	3.02%	2.43%	0.73%	0.37%	0.36%	0.00%	**100.00%**
Weighted Average Unimpairment Rate[2]	(vi)=(iv)/(v)	0.279	0.246	0.040	0.015	0.007	0.003	0.001	0.001	0.00001	0.59

Notes and Sources

Mount Sinai Insulator Data and iCMS Database

[1] Fraction of Owens Corning Asbestosis claimants with ILO scores of 1/0 or greater in the iCMS database.

[2] Impairment is defined by a PFT score of less than 80 percent of the Predicted Value in Forced Vital Capacity.

Exhibit VI-1
Owens Corning
Average Settlement Values Adjusted for the Effect of Punitive Awards[1]

	Age				
	0 - 50	51 - 60	61 - 70	71 - 80	81 and Older
	(1)	(2)	(3)	(4)	(5)
Mesothelioma	$212,685	$184,829	$133,721	$109,866	$91,605
Lung Cancer	$37,808	$35,371	$31,557	$29,942	$29,327
Other Cancer	$17,503	$14,691	$15,396	$15,469	$14,887
Impaired Non-Malignant[2]	$12,197	$11,411	$10,181	$9,660	$9,462

Notes and Sources:

[1] For details about the averages computed for claims resolved 1996 - 2000 after reallocation of unknown diseases, see Dunbar Report, October 15, 2004, p.23.

[2] Impaired non-malignant claim values are estimated as a fraction of lung cancer values based on the relative values reported in the NSP agreements.

Exhibit VI-2a
Owens Corning
Average Values of Paid Mesothelioma Claims
1996-2000, by Closed Date

Year	NSP Inventory Claims	NSP Future Claims	Non_NSP Claims	Overall
(1)	(2)	(3)	(4)	(5)
1996			$129,020	$128,965
1997			$186,964	$182,918
1998			$145,445	$153,091
1999	$203,780	$261,594	$141,460	$187,660
2000	$206,258	$223,747	$187,291	$205,201

Notes and Sources:

Average is for claims resolved for non-zero amount, excluding trial verdicts.
Values have been adjusted for inflation to year 2000 dollar equivalents.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
Average NSP settlement values prior to 1999 not reported.

Exhibit VI-2b
Owens Corning
Average Values of Paid Lung Cancer Claims
1996-2000, by Closed Date

Year	NSP Inventory Claims	NSP Future Claims	Non_NSP Claims	Overall
(1)	(2)	(3)	(4)	(5)
1996			$30,348	$30,413
1997			$38,471	$38,831
1998			$32,228	$32,826
1999	$48,776	$51,800	$34,716	$45,043
2000	$56,468	$50,627	$35,497	$50,897

Notes and Sources:

Average is for claims resolved for non-zero amount, excluding trial verdicts.
Values have been adjusted for inflation to year 2000 dollar equivalents.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
Average NSP settlement values prior to 1999 not reported.

Exhibit VI-2c
Owens Corning
Average Values of Paid Other Cancer Claims
1996-2000, by Closed Date

Year	NSP Inventory Claims	NSP Future Claims	Non_NSP Claims	Overall
(1)	(2)	(3)	(4)	(5)
1996			$16,031	$16,082
1997			$18,243	$18,423
1998			$12,645	$12,655
1999	$19,844	$17,665	$17,866	$19,129
2000	$22,479	$13,406	$29,349	$20,553

Notes and Sources:

Average is for claims resolved for non-zero amount, excluding trial verdicts.
Values have been adjusted for inflation to year 2000 dollar equivalents.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
Average NSP settlement values prior to 1999 not reported.

Exhibit VI-2d
Owens Corning
Average Values of Paid Nonmalignant Claims
1996-2000, by Closed Date

Year	NSP Inventory Claims	NSP Future Claims	Non_NSP Claims	Overall
(1)	(2)	(3)	(4)	(5)
1996			$9,344	$9,373
1997			$10,431	$10,597
1998			$8,605	$8,825
1999	$5,141	$7,236	$12,417	$6,388
2000	$7,016	$6,521	$13,276	$7,268

Notes and Sources:

Average is for claims resolved for non-zero amount, excluding trial verdicts.
Values have been adjusted for inflation to year 2000 dollar equivalents.
Disease categorizations reflect NERA's reallocation of unknown disease claims.
Average NSP settlement values prior to 1999 not reported.

Exhibit VII-1
Owens Corning
NERA Forecast
Claims Forecast Ends in 2050
Calibration period of 1996-2000:[1] Using Dismissal Rate Instead of Product ID

	Allowable Claims[2]			Value of Allowable Claims[3]			
Adjustment Based On	Pending[4]	Forecast 2000-2050[5]	Pending Plus Forecast	Pending	Forecast 2000-2050	Pending Plus Forecast	Discounted
(1)	(2)	(3)	(4) (2) + (3)	(5)	(6)	(7) (5) + (6)	(8)
Manville Audit[6]	17,076	50,695	67,770	$.55 B	$1.93 B	$2.48 B	$1.55 B
Dr. Friedman's Study[7]	12,862	39,492	52,354	$.51 B	$1.82 B	$2.33 B	$1.45 B
Johns Hopkins Study[8]	15,159	50,274	65,433	$.53 B	$1.93 B	$2.46 B	$1.53 B

Notes:

[1] Filing rate calculated over 1996-2000.

[2] All scenarios apply 1996-2000 historic dismissal rates for non-NSP claims.
11.3% of Lung Cancer and Other Cancer claims were downgraded to no disease, following the Manville Audit results.

[3] Forecast priced using 1996-2000 average settlement values, by age category, expressed in 2000 dollars, adjusted for punitive damages. Impaired Non-Malignants prices as 27% of Lung Cancer average.

[4] Pending claim counts are based on NERA's analysis of the Oracle database. Pending claims include NSP settlements that have not been finalized (i.e. those lacking either a release or an approval), as well as non-NSP claims that have not been resolved.

[5] Forecast from October 5, 2000 to December 31, 2050. Allocation of unknown claims based on data from the Manville Trust and CCR databases. Filing dates adjusted for unsustainable claims surge in 1999-2000.

[6] Manville audit results used to reallocate asbestosis to pleural and no disease, and pleural to no disease. Analysis of Dr. Selikoff's data used to estimate fraction of impaired pleurals (38%).

[7] 13.3% of all non-malignant claims are taken as impaired following Dr. Friedman's study.

[8] Following Johns Hopkins study 95.3% of asbestosis re-classified as no underlying disease. Analysis of Dr. Selikoff's data used to estimate fraction of impaired pleurals (38%).

APPENDIX A

NON-MALIGNANT DOSE-RESPONSE MODEL

It is by now well established that exposure to asbestos may lead to non-malignant diseases, such as asbestosis, which may involve scarring of the lung tissue and/or fibrosis. Asbestosis may or may not be debilitating; when it is, it may entail significant impairment of certain lung functions. Non-malignant diseases such as pleural thickening, asbestosis (parenchymal fibrosis) and consequent impairment of lung functions are related to asbestos exposure, its length and intensity and the time since exposure. It is also well established that smoking is a contributing factor.

A substantial literature on various aspects of this topic already exists. A number of studies are based on data for a sample of insulation workers developed by researchers at Mount Sinai including Dr. Selikoff ("Mount Sinai sample"). This sample consists of a cohort of 2,790 insulators for whom medical examinations that were completed within the period 1981-1983. Initially there were 2,907 insulators in the sample for whom chest x-rays (radiographs) and spirometry were evaluated; but in the case of 117 subjects the quality of the x-ray was not sufficient to allow for unambiguous reading and/or some other relevant information could not be obtained, thus reducing the effective sample size to 2,790. Our sample is a subset of the Mount Sinai sample consisting of 2,243 observations; the reduced number is due to the fact that some records had missing data such as years since first exposure (YSFE) and/or years since last exposure (YSLE).

The epidemiological literature, given in the references, shows that the prevalence of asbestosis and pleural abnormalities, for a population at risk, are determined by the extent of asbestos exposure and the time elapsed since the onset of such exposure. This time may be divided into duration, i.e. years in the at-risk occupation, and YSLE. The extent of exposure is measured in the literature as f/ml, i.e. asbestos fibers (of a given type) per milliliter per year, sometimes called intensity. If we cumulate this over the years worked in the at-risk occupation,

i.e. duration, we obtain the cumulative exposure, which is measured in f/ml-years. This measure we term dose in the model we develop.

Following the literature we consider any subject with pleural abnormalities and an FVC less than 80% to be impaired; if the FVC is greater than or equal to 80%, the subject is classified as unimpaired. Similarly, a subject exhibiting an ILO reading of 1/0 or higher and an FVC less than 80% is classified to be impaired; if the FVC is greater than or equal to 80%, the subject is classified as unimpaired. Thus, the impaired class consists of all subjects with a pleural abnormality or an ILO reading of 1/0 or higher, and FVC less than 80%. The unimpaired class consists of all subjects that exhibit pleural abnormalities or an ILO reading of 1/0 or higher, and FEV greater than or equal to 80%. The remaining subjects are classified as Other.

Several studies from the literature, e.g. Lilis *et al.* (1991b), use the Mount Sinai sample, investigate *inter alia* the relation between the degree of profusion of small opacities and various manifestations of disease, particularly dyspnea, and pleural and interstitial fibrosis; in addition, they seek to establish the role played by smoking in the development of such conditions. They establish that cigarette smoking is a significant determinant of asbestosis (p. 11), but not a significant determinant in pleural abnormalities, (p.12). Other significant determinants were YSFE and duration. In their sample, the largest class was the one that involved both pleural abnormalities and asbestosis, with the implication that with the passage of time, both as duration and as time since last exposure increase, prevalence of asbestosis only was smaller than prevalence of pleural abnormalities only. In fact there is support for the notion of a progression of pleural abnormalities to asbestosis, so that an individual tends to exhibit both more frequently than either alone as time since first exposure increases; see Table II, p.6.

The progression of pleural abnormalities and asbestosis is also examined in Jones *et al.* (1989). This study deals with a cohort of 244 men who are either currently or formerly employed in two asbestos cement plants, both using chrysolite asbestos, but one of the plants (Plant 2) also used crocidolite asbestos systematically. Of the 244 workers, satisfactory longitudinal (radiographic) data were available for 10 years for 167 workers; for 150 (of those) there were lung function (spirometric) data for 6 years. The study involved comparing

radiographs at the beginning of the period (1970) and at the end of the observation period (1980). They then determine whether there has been a progression (of asbestos related morbidity) between the two periods. Progression is defined as a transition from clear to some degree of profusion of small opacities, or pleural abnormalities, or as a worsening of the manifestation of either, relative to the earlier date. They find that cumulative exposure, what we earlier called dose, initial conditions, i.e. status in 1970, and the kind of asbestos used in the workplace determine the extent of progression.

Both studies use a similar formulation: in each case the authors use a logistic model, and variables that are similar to those we use. In Jones *et al.* YSLE is not explicitly used, but it is used implicitly, since at the time of the terminal examination, 1980, some workers may have already retired so that YSLE could have been employed if the date of retirement were know; at any rate, if retirement occurred before 1980 then the subject's condition, and hence the radiographs or other means of determining progressions are affected not only by dose but also by YSLE, which is not involved in the computation of dose, or cumulative exposure.

In the Lilis *et al.* study Dose was not explicitly used but duration and YSFE were; if the intensity of exposure in their sample did not substantially vary from year to year, duration will be very highly correlated with dose, as well as YSFE; the latter in fact differs from duration only by YSLE. Thus, under the conditions noted they in fact used dose and YSLE.

The model we have employed is of the form:

$$\text{logit}(p_i) = a_0 + a_1 d + a_2 \ln(Dose) + a_3 \sqrt{YSLE}\,, \qquad \text{i} = 1,2$$

where 1 refers to impaired, 2 to unimpaired and d is a dummy variable assuming the value 1 if the subject is a current smoker and zero otherwise. Finally the probability of Other is given by

$p_3 = 1 - p_1 - p_2$

Thus, the variables and the basic probabilistic framework we employ are consonant with the literature.

The model was estimated by maximum likelihood (ML) methods using STATA. ML in this context is known to produce estimators which are asymptotically normal centered about the true parameters and efficient (see for example Wooldridge (2002)). Since our sample consists of 2,243 observations, asymptotic (large sample) theory is easily applicable.

REFERENCES

Fischbein, A., J. J. Luo, S. Rosenfeld, M. Lacher and A. Miller, (1991), ``Respiratory findings among ironworkers: results from a clinical survey in the New York metropolitan area and identification of health hazard from asbestos in place at work", British Journal of Industrial Medicine, vol. 48, pp. 404-411.

Jones, R.N., J. E. Diem, J.M. Hughes, Y. Y. Hammd, H. W. Glindmeyer and H. Weill, (1989), British Journal of Industrial Medicine, vol. 46, pp. 97-105.

Lilis, R., A. Miller, Godbold, E. Chan, S. Benkert and I. J. Selikoff (1991a), ``The Effect of Asbestos-Induced Pleural Fibrosis on Pulmonary Function", Annals of the New York Academy of Sciences, vol. 643, pp. 162-168.

Lilis, R., A. Miller, J. Goldblod, E. Chan and I. J. Selikoff, (1991b) ``Radioraphic abnormalities in asbestos insulators: effects of duration from onset of exposure and smoking. Relationships of Dyspnea with parenchymal and pleurl fibrosis", American Journal of Industrial Medicine, vol. 20, pp. 1-15.

Lilis, R.,A. Miller, J. Godbold, S. Benkert, X. Wu and I.J. Selikoff (1992), ``Comparative Evaluation of Pleural Fibrosis and its Effect on Pulmonary Function in two Large Asbestos-Exposed Occupation Groups-Insulators and Sheet Metal Workers", Environmental Research, vol. 59, pp. 49-66.

Miller, A. (1991) ``Application of Pulmonary Function Tests to the Evaluation of Asbestosis", Annals of the New York Academy of Sciences, vol. 643, pp. 145-148.

Sanden, A., Bengt Jarvholm, Sven Larsson (1993) The Importance of Lung Function, non-malignant Diseases associated with Asbestos, and Symptoms as Predictors of Ischaemic Heart Disease in Shipyard Workers Exposed to Asbestos", British Journal of Industrial Medicine, 50: pp. 785-790.

Wooldridge, J. (2002) Econometric Analysis of Cross Section and Panel Data, Cambridge, Ma: MIT Press.

Appendix B

Number of Owens Corning Claims Naming High Volume Doctors Identified in the Manville Audit[1]

Number	Doctors	Claims	Percent
(1)	(2)	(3)	(4)
1	HARRON, RAY A.	64,364	20.82%
2	LEVINE, RICHARD B.	24,729	8.00%
3	SEGARRA, JAY T.	20,598	6.66%
4	LUCAS, PHILLIP HOWARD	19,395	6.27%
5	MITCHELL, LARRY M.	18,032	5.83%
6	SCHONFELD, ALVIN J.	16,134	5.22%
7	KUEBLER, RICHARD SMYTHE	14,965	4.84%
8	GAZIANO, DOMINIC J.	12,014	3.89%
9	HOLMES, EDWARD H.	5,172	1.67%
10	SCHIEFER, MARK A.	5,101	1.65%
11	CLARK, MARK COLIN	4,767	1.54%
12	ROSATI, ROBERT A.	3,884	1.26%
13	BASSALI, MAURICE A.	3,298	1.07%
Number of Times Doctor Name is Mentioned		**212,451**	
Claims with Two Manville Audit Doctor Names		**15,698**	
Number of Unique Claims with Manville Audit Doctor		**196,753**	**63.64%**
Number of Claims with Doctor Name		**309,148**	**100.00%**

Notes and Sources:

ICMS Database

Fax to Elihu Inselbuch, Esq. from Mark Lederer, April 24, 1998, Bates #CRMC 01688905-0168913.

[1] Claims from the Owens Corning database were matched with the Manville Trust database using social security number. The claims that matched were assigned the corresponding Manville doctor name whenever possible. Claims that did not match and those that did match but did not have a doctor name were standardized using the provider name. A count of doctor name was then performed to come up with the top 100.

Appendix B

Number of Owens Corning Claims Naming Top 100 Owens Corning Doctors Associated with the Owens Corning Fraud Litigation Against Doctors and Testing Facilities[1]

Number	Doctors	Claims	Percent
(1)	(2)	(3)	(4)
1	HARRON, RAY A.	64,364	20.82%
2	LEVINE, RICHARD B.	24,729	8.00%
3	SEGARRA, JAY T.	20,598	6.66%
4	LUCAS, PHILLIP HOWARD	19,395	6.27%
5	MITCHELL, LARRY M.	18,032	5.83%
6	SCHONFELD, ALVIN J.	16,134	5.22%
7	KUEBLER, RICHARD SMYTHE	14,965	4.84%
8	GAZIANO, DOMINIC J.	12,014	3.89%
9	GOLDINER, WILLIAM H.	7,139	2.31%
10	HOLMES, EDWARD H.	5,172	1.67%
11	SCHIEFER, MARK A.	5,101	1.65%
12	KLEPPER, MARK S.	4,998	1.62%
13	KELLY, R. MICHAEL	4,804	1.55%
14	CLARK, MARK COLIN	4,767	1.54%
15	CASTIGLIONI, LEO J.	4,424	1.43%
16	FRIEDMAN, GARY K.	3,913	1.27%
17	ROSATI, ROBERT A.	3,884	1.26%
18	CASOLARO, M. ANTHONY	3,871	1.25%
19	SCUTERO, JAMES V.	3,807	1.23%
20	PETROFF, PETER A.	3,561	1.15%
21	GOMES, GLENN M.	3,558	1.15%
22	KLEIN, GERALD M.	3,554	1.15%
23	ZIMMET, STEVEN M.	3,426	1.11%
24	FOREMAN, DAVID R.	3,404	1.10%
25	BALLARD, JAMES WAYLAND	3,339	1.08%
26	BUONO, JOSEPH	3,238	1.05%
27	LORINO, GAETON D.	3,032	0.98%
28	CONNER, MICHAEL G.	2,956	0.96%
29	KILBURN, KAYE H.	2,758	0.89%
30	KRONENBERG, RICHARD S.	2,692	0.87%
31	HARFORD, PAUL H.	2,613	0.85%
32	BASS, JEFFREY H.	2,613	0.85%
33	HAGEN, HAROLD M.	2,544	0.82%
34	JOHNSON, ROY P.	2,181	0.71%
35	SOLACK, GEORGE ANDREW	2,105	0.68%
36	DULA, FRED M.	2,034	0.66%
37	MAZZA, FRANK G.	1,752	0.57%
38	HOLSTEIN, EDWIN C.	1,643	0.53%
39	NAYDEN, GREGORY A.	1,635	0.53%
40	NOSS, PHYLLIS JAYNE	1,388	0.45%
41	HILLMAN, HENRY K.	1,246	0.40%

Appendix B

Number of Owens Corning Claims Naming Top 100 Owens Corning Doctors Associated with the Owens Corning Fraud Litigation Against Doctors and Testing Facilities[1]

Number	Doctors	Claims	Percent
(1)	(2)	(3)	(4)
42	FORRESTER, BRIAN G.	1,176	0.38%
43	FRASER, ROBERT G.	1,030	0.33%
44	SILBIGER, MARTIN L.	879	0.28%
45	MESEROLL, WILLIAM P.	823	0.27%
46	BERNSTEIN, RICHARD C.	811	0.26%
47	HALES, J. DARVIN	802	0.26%
48	BLAKLEY, GAIL	745	0.24%
49	LORINO, CYNTHIA O.	639	0.21%
50	STEWART, RHONDA R.	634	0.21%
51	BRUCE, JAMES R.	587	0.19%
52	DUPLESSIS, GORST H.	507	0.16%
53	BROWN, THOMAS L.	466	0.15%
54	SEIBERT, ALLAN F.	408	0.13%
55	DRASIN, EDWARD	378	0.12%
56	GUTTMAN, STUART T.	350	0.11%
57	ROMAN, JOSE E.	285	0.09%
58	KRADIN, RICHARD L.	254	0.08%
59	OLIVER, L. CHRISTINE	251	0.08%
60	ARRINGTON, ALAN H.	239	0.08%
61	MCGEE, ROBERT VON	214	0.07%
62	HAYNE, STEVEN T.	192	0.06%
63	LABORDE, JEFFREY	168	0.05%
64	CHILDS, W. HAYDEN	148	0.05%
65	PACE, S.KELTON	99	0.03%
66	MORROW III, SANFORD HEWITT	96	0.03%
67	BIGGS, PAUL J.	64	0.02%
68	MILLMAN, JONATHAN B.	63	0.02%
69	JACKSON, HENRY	54	0.02%
70	BOUDREAU, FLOYD T.	51	0.02%
71	ANGELETTE, CINDALU W.	49	0.02%
72	WIMBERLEY, NEIL E.	44	0.01%
73	DONNELL, ROBERT M.	40	0.01%
74	GREENE, REGINALD	38	0.01%
75	REINHARDT, JAMES D.	37	0.01%
76	GARDNER, LLOYD L.	35	0.01%
77	COLE, TIMOTHY L.	33	0.01%
78	LUDWIG, ARTHUR S.	32	0.01%
79	VON MCGEE, ROBERT	32	0.01%
80	EDMONDS, LELAND C.	31	0.01%
81	KOENEMANN, L.C.	29	0.01%
82	MAISEL, DEBORAH	22	0.01%

Appendix B

Number of Owens Corning Claims Naming Top 100 Owens Corning Doctors Associated with the Owens Corning Fraud Litigation Against Doctors and Testing Facilities[1]

Number	Doctors	Claims	Percent
(1)	(2)	(3)	(4)
83	CANNON, SUSAN S.	21	0.01%
84	BECKMAN, EDWIN	19	0.01%
85	RIPPS, LORI G.	19	0.01%
86	DORE, DONALD E.	17	0.01%
87	ALLEN, CLYDE R.	16	0.01%
88	BUCHALTER, HELENA	16	0.01%
89	WALLACE	16	0.01%
90	HULETT, ALAN D.	15	0.00%
91	KRATZ, KURT	15	0.00%
92	O'SHEAL, STEVEN F.	15	0.00%
93	MATHEWS, ALVIN	14	0.00%
94	MITCHELL, ACCIE M.	14	0.00%
95	LACEY, PAULA G.	11	0.00%
96	HUTCHINS, KELLY E.	10	0.00%
97	WILLIAMS, JAMES E. III	9	0.00%
98	SATEWOOD, RONALD W.	8	0.00%
99	GATEWOOD, RONALD	5	0.00%
100	HASSELL, JOHN F.	4	0.00%
Number of Times Doctor Name is Mentioned		**312,459**	
Claims with Two Manville Audit Doctor Names		**37,791**	
Number of Unique Claims with Manville Audit Doctor		**274,668**	**88.85%**
Number of Claims with Doctor Name		**309,148**	**100.00%**

Notes and Sources:

ICMS Database

[1] Claims from the Owens Corning database were matched with the Manville Trust database using social security number. The claims that matched were assigned the corresponding Manville doctor name whenever possible. Claims that did not match and those that did match but did not have a doctor name were standardized using the provider name. A count of doctor name was then performed to come up with the top 100.