

**IN THE UNITED STATES BANKRUPTCY COURT  
FOR DISTRICT OF DELAWARE**

IN RE:

Specialty Products Holding Corp.  
a/k/a RPM, Inc.,  
Debtor

Bankruptcy No. 10-11780-JKF  
Chapter 11

Bondex International, Inc.  
Debtor

Bankruptcy No. 10-11779-JKF  
Chapter 11  
*Jointly Administered at Bankr. No. 10-11780*

**RE: Estimation of Debtors' Asbestos Liability**

**MEMORANDUM OPINION<sup>1</sup>**

Before the Court, pursuant to §502(c)(1), is the estimation of the amount of contingent or unliquidated claims against Debtors, i.e., the present and future mesothelioma claims caused by exposure to the Debtors' asbestos.<sup>2</sup> In estimation proceedings the Court is to determine that number based on the Debtors' tort system claiming history. *Owens Corning v. Credit Suisse First Boston*, 322 B.R. 719, 721-22 (D.Del. 2005). Based on Debtors' postulate of how their actual historical payments to claimants should be reduced for purposes of assessing present and future claims, Debtors' expert, Dr. Charles H. Mullin,<sup>3</sup> estimated Debtors' total future liabilities at between \$465-\$700 million nominal,<sup>4</sup> or \$300-\$575

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<sup>1</sup>The court's jurisdiction was not at issue. This Memorandum Opinion constitutes our findings of fact and conclusions of law.

<sup>2</sup>By stipulation and order dated June 20, 2012, Doc. No. 2578, the parties agreed that present value numbers for mesothelioma claims must be increased by six percent to arrive at an amount that reflects Debtors' liability for all asbestos claims.

<sup>3</sup>Dr. Mullin has a Ph.D. in economics and specializes in econometrics, statistical modeling, and risk analysis. Most of his work is in the areas of environmental and product liability in insurance coverage settings. Econometrics is the application of mathematical and statistical techniques to economics in the study of problems, the analysis of data, and the development and testing of theories and models.

<sup>4</sup>Dr. Mullin ultimately concluded that:

(continued...)

million net present value with a discount rate of 5.5 percent.<sup>5</sup> Using traditional analysis, Dr. Mark Peterson, a lawyer and behavioral scientist who testified for the Asbestos Creditors' Committee ("ACC"), estimated that the most appropriate estimate of Debtors' total liability, applying a 3.7 percent discount rate, is \$1.255 billion net present value. Doc. No. 3476, Tr. 1/10/13 at 188:5-8 (Peterson). Dr. Thomas Vasquez is an economist and vice president of Analysis, Research & Planning Corporation ("ARPC"). Dr Vasquez testified for the Future Claimants' Representative ("FCR"), Eric Green. He estimated Debtors' total liability at \$1.1 billion, net present value. Doc. No. 3474, Tr. 1/11/13 at 80:3-19. He

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<sup>4</sup>(...continued)

(1) Had the Debtors remained in the tort system and individually evaluated claims, they would have spent approximately \$700 million nominal to settle claims. That \$700 million consists of (a) \$30 million in settled but not documented claims ("SBND") (*see infra*), (b) \$70 million in pending mesothelioma claims, and (c) \$600 million in future mesothelioma claims. Using the range of discount rates proffered by the financial advisors for the ACC, the FCR, and Debtors, this would result in a present value ranging from \$445 to \$575 million.

(2) If this nominal amount is then adjusted to exclude settlement amounts not driven by liability, the result is \$465 million nominal, consisting of (a) \$30 million in SBND claims, (b) \$45 million in pending mesothelioma claims, and (c) \$390 million in future mesothelioma claims. Using the range of discount rates proffered by the financial advisors for the ACC, the FCR, and Debtors, this would result in a present value ranging from \$300 to \$385 million.

Doc. No. 3531 at 75.

Dr. Mullin used various assumptions provided by the Debtors or replicated the Future Claimants' Representatives' experts' opinions. Doc. No. 3740, Tr. 1/8/13 at 291:25 (Mullin) ("If [Debtors'] legal theory is correct, I've quantified it, if it's not correct, I've quantified alternatives as well. I don't have an opinion about who's right and who's wrong on the legal theory, I've just quantified the implications of the different legal arguments that have been put forward"). His estimate of Debtors' several share is \$160 million (nominal). We note that the numbering of the pages of the January 8, 2013, transcript is not always consecutive; the transcript as docketed skips from page 249 to 252.

<sup>5</sup>As will be discussed, in addition to using different discount rates, the estimation experts used different time periods for their forecasts, found different propensities to sue, and assessed differently the percentage of claims paid by Debtors as well as the average amount paid per claim. Thus, it is not surprising that their estimates resulted in different values.

applied a 3.45 percent discount rate.<sup>6</sup> Tr. 1/11/13 at 80:17-81:3 (Vasquez). One difference in the approaches of the three experts was their use of a forecasting model. Dr. Mullin and Dr. Peterson used the Nicholson approach. Dr. Vasquez averaged the Nicholson<sup>7</sup> and Peto<sup>8</sup> approaches to reach his conclusion. He did so because Dr. Nicholson's forecast is limited to those who are occupationally exposed while the Peto approach considers non-occupational exposure. The Peto approach considers "whoever gets asbestos from whatever source." Tr. 1/11/13 at 178:22-179:6 (Vasquez).

For the reasons which follow we decline to accept Debtors' novel approach in this case and credit the testimony of the ACC's and FCR's experts, adopting for the most part that of Dr. Thomas Vasquez, witness for the Future Claimants' Representative ("FCR").

#### Corporate History

Specialty Products Holding Corporation ("SPHC") was incorporated in 1947 as Republic Powdered Metals, Inc. Republic Powdered Metals, Inc. (n/k/a SPHC) acquired the assets and some of the liabilities of The Reardon Company in 1955.<sup>9</sup> Reardon was a small manufacturer of asbestos-

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<sup>6</sup>The discount rates were provided by various financial advisors, as discussed in text, *infra*.

<sup>7</sup>The Nicholson model is that most often used to estimate mesothelioma claims. Nicholson was an epidemiologist and his model is the only one that has been peer reviewed. In addition, his approach has been confirmed by 30 years of data, Tr. 1/10/13 at 215:24-216:6 (Peterson), and has been updated annually for about the last ten years. Tr. 1/11/13 at 94:17-95:3 (Vasquez).

<sup>8</sup>This approach was created by Julian Peto and forecasts the size of the population that was exposed to the product of a specific company by using that company's own mesothelioma claims history. As Dr. Vasquez explained it, the Peto approach "reverse engineers the system. It says show me your claims, show me where they were exposed, how long they were exposed. If you tell me all of that, I can tell you how many -- how large the population must have been in order to produce that many mesotheliomas. So it kind of backcast to the surviving population. You then take that and you run the surviving population out over time and that produces for you a count of mesotheliomas." Tr. 1/11/13 at 178:13-20.

<sup>9</sup>Debtors assert that they have no liability for claims based on alleged exposures to  
(continued...)

containing joint compound, used primarily in the do-it-yourself (“DIY”) market, among other products.

Republic Powdered Metals changed its name to RPM, Inc. in 1972 but from 1966 until May 31, 1972, it operated the Reardon businesses as a separate division.<sup>10</sup> On May 31, 1972, Bondex International, Inc. was formed as a wholly owned subsidiary of RPM, Inc. Bondex acquired the Reardon division on that date from RPM, Inc. and assumed all of the business liabilities of the Reardon product line. It also acquired the roofing products business division and its liabilities. The result was that RPM, Inc. became a holding company.

Bondex continued to manufacture joint compound asbestos-containing products until 1977. The joint compound was marketed under the “Bondex” brand name. In 1977 Bondex substituted a reformulated product that did not contain asbestos. In 1999 Bondex ceased operations and sold its assets to two sister companies<sup>11</sup> whereupon Bondex’s only activity was the litigation and settlement of asbestos-related claims. In 2002 RPM International Inc. (“International”) was incorporated and became the ultimate parent. RPM, Inc. thereby became an intermediate holding company and in 2010 changed its name to Specialty Products Holding Corporation. *See* Doc. No. 3334, Pretrial Order at 2-12, Statement of Admitted Facts.

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<sup>9</sup>(...continued)

asbestos prior to 1966 but the 1955 purchase included assumption of some liabilities. Debtors’ position is that in the tort system they were paying more than their several share and should not have been and, therefore, the Court should estimate only what would have been Debtors’ several share. However, the evidence is that Debtors never paid more than their own share when settling a claim. *See infra*. *See also* 10/12/12 Dep. at 286:20-287:9 (Tompkins); 9/24/12 Dep. at 91:20-92:9 (Fleming).

<sup>10</sup>John Fleming, the president of Bondex in 1999 when Bondex transferred manufacturing operations and sold assets to DAP and another RPM, Inc. subsidiary, Zinsser, testified in deposition that Reardon and Republic Powdered Metals operated independently until December 31, 1999, when Bondex ceased operations. *See* Doc. No. 3334, Pretrial Order, Statement of Admitted Facts at ¶ 23 (Bondex terminated all employees except for Mr. Fleming in July of 2000).

<sup>11</sup>DAP and Zinsser. Doc. No. 3572, ACC FCR Finding of Fact (“FF”) 44.

## Mesothelioma Litigation History

The first mesothelioma cases were filed against Bondex in 1980 and until 1999 the volume of mesothelioma cases was very low. In the 1980s Debtors engaged national coordinating counsel to manage their asbestos litigation and settlement strategy. Glenn Bowers took over the role in the late 1980s. 11/1/12 Dep. at 50:6-10 (Bowers). International became a client in the mid 2000s. 11/1/12 Dep. at 8:4-14 (Bowers). Bondex historically had a higher claiming rate than SPHC, which has been named in about half of the mesothelioma cases and there has never been a mesothelioma case filed against SPHC that did not also include Bondex as a named defendant. Regardless of which company was sued, Bondex always insisted on releases of the entire family of companies.

Claims against Debtors began to increase dramatically in 2000. This occurred about the same time that Debtors began identifying their asbestos products marketed under private label names in answers to interrogatories. 9/24/12 Dep. at 170:7-171:18 (Fleming). John Fleming, President of Bondex in 1999, also testified that joint compound manufacturers began to be targeted as defendants in asbestos tort litigation at that time as well. 9/24/12 Dep. at 173:20-25 (Fleming).

Between 1999 and 2002, RPM, Inc. (n/k/a SPHC) provided the funds used to pay settlement of claims brought against Debtors to the extent not covered by insurance. Doc. No. 3475, Tr. 1/7/13 at 105:17-22 (Tompkins). During this time, insurance was the source for approximately 90 percent of payments made to claimants. Tr. 1/7/13 at 106:2-8 (Tompkins). From 2002 to 2010 International provided funding for payment of asbestos settlements. Tr. 1/7/13 at 105:6-16 (Tompkins). Although Debtors contend that before 2000 they always individually evaluated claims, Glenn Bowers, one-time national coordinating counsel for Debtors, testified that at least through 2007 most settlements were group settlements. 11/1/12 Dep. at 98:5-12 (Bowers).<sup>12</sup> Nonetheless, when Debtors engaged in individual

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<sup>12</sup>By “group settlement” Mr. Bowers meant that Debtors’ database shows that there were many instances where multiple cases settled on the same date. He noted that the insurance (continued...)

claims examinations they considered a variety of factors including (1) product identification, (2) credibility of exposure including the type and duration of exposure, (3) whether the exposure was consistent with the typical use of the product, (4) whether exposure was consistent with causing the disease, (5) codefendants and their relative share of liability, and (6) the risks of proceeding to trial,<sup>13</sup> (7) the jurisdiction,<sup>14</sup> (8) the identity of plaintiff's counsel and (9) the possible impact of an adverse verdict (i.e., raising the defendant's profile). The importance of any particular factor depended, of course, on the case. *See also* 9/24/12 Dep. at 67:21-22 (Fleming).

A diagnosis of mesothelioma as well as product identification sufficient, in Debtors' counsel's judgment, to survive summary judgment were important factors in deciding whether to try a case. For those cases subject to individual evaluation approximately 70 percent were dismissed; in group settlements the dismissal rate was less. A small number of individually evaluated cases resulted in settlements of over \$200,000. Of the rest, settlements were often many times less than the expected litigation defense costs would be. In cases that proceeded to trial Debtors prevailed in over 60 percent. However, for the most part, Debtors' insurers were not interested in pursuing an aggressive defense as most of the policies provided for unlimited reimbursement of defense costs so insurers moved to quickly

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<sup>12</sup>(...continued)

carriers usually insisted that if, for example, 20 mesothelioma cases were set for trial and Debtors were involved in four of them, it did not make sense to settle just one so most of the time all the cases on the docket would be settled. 11/1/12 Dep. at 98:5-99:3 (Bowers). He stated that Kelly Tompkins, former general counsel for SPHC, and later International, had primary authority for settlement of asbestos claims from 1998 to 2009 and also insisted on settling the cases. 11/1/12 Dep. at 98:14-17, 24-25-99:3 (Bowers). Dr. Mullin suggested that the data indicated inventory deals prior to 2007 but the data was not dispositive on that point. Tr. 1/8/13 at 257:18-21 (Mullin). *See* note 15, *infra*.

<sup>13</sup>The risks of proceeding to trial included considerations of the age of the plaintiff, the plaintiff's occupation, whether the plaintiff had dependents and whether any dependent had special needs.

<sup>14</sup>Considerations regarding jurisdiction included the jurisdiction's verdict history (e.g., Texas cases tended toward large verdicts) and its asbestos litigation history.

settle cases in order to exhaust their policy limits, which end was achieved by 2004. As noted, while policies were extant, carriers paid approximately 90 percent of the settlement payments and defense costs and Debtors funded the rest. In the eight years prepetition Debtors were paying about \$50 million per year in indemnity payments. Tr. 1/11/13 at 278:15-16 (Mullin).

#### Causes of Increase in Claims Against Debtors

Debtors contend that the dramatic increase in claims against them in 2000 resulted from the bankruptcy filings of other asbestos companies which caused claimants to pursue Debtors for what those other companies would have paid. The evidence, however, was that the bankruptcy filings in 2000 were few and came at the end of the year. In this regard we credit Dr. Mark Peterson's testimony that at least the initial increase in claims being filed against Debtors was not caused by the fact that other companies had filed bankruptcy. He testified that although eight major bankruptcies were filed in the 2000 to 2001 time period only two had been filed as of October of 2000. Tr. 1/10/13 at 197:17-19 (Peterson). Two more were filed by the end of 2000 and four were filed in 2001. Doc. No. 3471, Tr. 1/9/13 at 197:21-23 (Peterson). The bankruptcy filings of other asbestos defendants were not the sole cause of increased claims.

In the prepetition years closest to the date of the filing of the bankruptcy, over one-third of the mesothelioma suits brought against Debtors were filed by three law firms: Cooney & Conway, The Lanier Law Firm and Simmons Cooper LLC ("Cooney, Lanier and Simmons Firms"). Most of those cases were filed in Madison and Cook Counties, Illinois. Those counties employed a case management process unfavorable to defendants and resulted in burdensome trial preparation. Several cases would be set for trial on a Monday but only one, which would be chosen by plaintiffs' counsel, would proceed to trial. Thus, Debtors would not know which case had been chosen until the day of trial. Debtors' defense costs in Madison County alone went up to \$10 million a year.

Debtors determined that they could not afford to investigate and defend all those cases on the

merits and so devised a group settlement process for cases on the trial docket to avoid defense costs.<sup>15</sup> Debtors settled a defined group for a certain dollar amount without material investigation or evaluation of the individual cases but only when presented with evidence of product identification (exposure). For these group settlements a substitution process was employed. That is, to the extent product identification evidence could not be provided, plaintiff's counsel would replace that claimant in the group with another who could provide product identification. Tr. 1/8/13 at 249:21-250:1 (Mullin); Tr. 1/10/13 at 207:22-208:1 (Peterson). Mark Iola, an attorney and partner at Stanley & Iola, LLP, in Dallas, Texas, has spent the last thirty years representing mesothelioma claimants. On behalf of the ACC he confirmed that the group settlements were not merit based but were "business transactions"<sup>16</sup> between Bondex and the law firms. Although, as stated, evidence of some exposure to an asbestos product of Debtors was required, Debtors had no role in how the settlement proceeds were allocated among claimants. Debtors did, however, agree with the number of claims and total dollars included in the settlement.

Furthermore, where there was a sympathetic plaintiff with colorable, even weak, product identification Debtors would settle if trial risk was deemed too great, Tr. 1/10/13 at 142:11-143:5 (Simon);<sup>17</sup> Tr. 1/9/13 at 269:13-271:13 (Iola), or, alternatively, if they thought that product identification was sufficient to survive a motion for summary judgment. Tr. 1/10/13 at 152:4-9 (Simon).

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<sup>15</sup>Although Debtors' records had data of other inventory or group settlements, Dr. Mullin chose to use 17 of them, from 2007-2010, in his analysis. Tr. 1/8/13 at 258:11-22, 259:23-25 (Mullin).

<sup>16</sup>Kelly Tompkins, former general counsel for SPHC, and then later International, had primary authority for settlement of asbestos claims from approximately June of 1998 through June of 2009. He and counsel for asbestos plaintiffs had input into the number of plaintiffs involved in a docket (group) settlement. Debtors agree that settlements were the result of arm's length transactions. Mr. Tompkins believed that national coordination counsel generally got the best deal for Bondex in these settlements.

<sup>17</sup>Jeffrey Simon is an attorney in Dallas, Texas, who has represented asbestos personal injury claimants for the past 20 years and for the last 13 years has dealt with mesothelioma and lung cancer cases exclusively.



From all of the evidence, we find that there are several reasons for increased claims against Debtors. More products made by Bondex but marketed under different brand names<sup>18</sup> were identified, the major suppliers and manufacturers of asbestos products sought bankruptcy protection, and Bondex began to have a higher profile as a defendant inasmuch as plaintiffs were experiencing some success in suits against other joint compound manufacturers. Doc. No. 3521 at 14. In addition, as will be explained below, although chrysotile asbestos may not be as potent as other types of asbestos, studies after the year 2000 showed an increase of mesothelioma cases in people with chrysotile-only exposure. The nature of the claims filed against Debtors changed as well. Bondex began to be sued with other defendants by plaintiffs who had sources of industrial or occupational exposure. Moreover, Debtors faced more aggressive and better prepared plaintiffs. Finally, a damaging letter (*see* note 27) and a video (“Longo video”) (*see text infra*) that would be devastating to Debtors if shown to a jury undoubtedly weighed into claims filings and debtors’ settlement strategies. Thus, Debtors’ increased claims had many explanations, not just other bankruptcies.

#### Chrysotile Asbestos

In an effort to minimize their liability, Debtors contend that, because their products contained chrysotile asbestos, they have less liability than producers who use other types of asbestos. Debtors’ witnesses opined that the type of asbestos in Debtors’ products, chrysotile, is much less potent than amphibole asbestos. The experts who testified on this point<sup>19</sup> agreed that amphibole asbestos (crocidolite

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<sup>18</sup>In discovery responses Debtors began to identify the names of products sold under private label to retailers such as Montgomery Ward and J.C. Penney. For example, private label (i.e., not under the “Bondex” name) products were sold through national retailers as Montgomery Ward (“Ward’s” brand) and J.C. Penney (“Penncraft” brand). Another brand known as “High & Dri” was sold through an agreement with an unnamed distributor.

<sup>19</sup>Tr. 1/9/13 at 179:22-25 and 182:1-183:8 (Ms. Susan Raterman, certified industrial hygienist for the ACC, citing various studies); Tr. 1/9/13 at 194:23-195:6, 206:12-207:11 (Dr. Arnold Brody, laboratory scientist, molecular biologist, and experimental pathologist, witness for the ACC, describing the mechanics of inhaling asbestos and how fibers cause disease);Tr.

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and amosite) is more potent than chrysotile.<sup>20</sup> See Tr. 1/9/13 at 179:24-25 (Raterman);<sup>21</sup> Tr. 1/10/13 at 31:10-14 (Welch).<sup>22</sup> Allan Feingold, M.D., is a board certified pulmonologist, a medical clinician and an expert in occupational lung disease. Tr. 1/7/13 at 42. He referred to the following studies:

- 1960 - amphibole asbestos linked to causation of mesothelioma
- 1965 - epidemiologic study that those who worked in manufacturing plant that produced amosite asbestos got mesothelioma
- 1972 - women who worked with chrysotile did not get mesothelioma; women who worked with crocidolite did (in the production of gas masks before, during and after WWII)
- 1989 - same results as 1972 with respect to a plant in England that manufactured friction products, including brakes.

Dr. Feingold testified that a small number of miners who worked in chrysotile mines in Quebec developed mesothelioma but only if they worked in areas where tremolite veins were also present. Doc. No. 3531, Debtors' Amended Post-Trial Brief at 15-18. Tr. 1/8/13 at 69:5-110:9 (Feingold). Dr.

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<sup>19</sup>(...continued)

1/9/13 at 75:5-76:14 (Anderson) (testifying to studies showing that chrysotile is not innocuous); Tr. 1/10/13 at 31:10-14, 33:16-34:5 (Laura Welch, M.D., epidemiologist and witness for the ACC, who also testified to an EPA science advisory board study concluding that asbestos fibers should not be differentiated by type).

<sup>20</sup>Dr. Anderson mentioned that over 40 years there have been four key studies that have looked at relative risk, potency or both comparing amphiboles to chrysotile. Tr. 1/9/13 at 75:2-5. He testified to the weight given to chrysotile vis amphiboles in a study in 2000 by Hodgson and Darnton (increased risk of chrysotile at 1, amosite at 100 and crocidolite at 500; an updated cohort changed the potency factors by a factor of ten but only with respect to one of the 22 studies used to calculate the potency factors), *id.* at 75:6-18; an EPA study with respect to the work of Berman and Crump (increased relative risk for amphiboles at 800); the Peto and Hodgson study which gave no weight to chrysotile, *id.* at 76:11-17; and the Yarborough study which also gave no weight to chrysotile, *id.* at 76:20-21.

<sup>21</sup>Susan Raterman, an ACC witness, is a certified industrial hygienist. Tr. 1/9/13 at 143:10

<sup>22</sup>Dr. Laura Welch, another ACC witness, is board certified in internal and occupational medicine. Tr. 1/10/13 at 10:21-22.

Feingold stated that no published epidemiologic study exists showing a cause and effect relationship between uncontaminated<sup>23</sup> chrysotile asbestos and mesothelioma. This testimony was disputed by other experts who relied on different studies. Dr. Welch, for example, while agreeing that amphibole asbestos is more potent than chrysotile did not agree with the numbers from the studies discussed by Dr. Anderson, *see* note 20, *supra*, and noted that there are more recent studies (since 2000) than those Dr. Anderson considered that show an increase in mesothelioma cases in people with chrysotile-only exposure. Tr. 1/10/13 at 31:10-20 (Welch). We credit Dr. Welch's testimony in this regard.<sup>24</sup>

Accepting the concept that Debtors' joint compound contained only chrysotile, Dr. Feingold and Dr. Anderson, Debtors' experts, examined the Personal Injury Questionnaires ("PIQS") submitted by individuals or their counsel in this case to determine the likely percentage of current claimants who could possibly show that their mesothelioma was caused by Debtors' joint compound. Tr. 1/8/13 at 76:3-11 (Feingold). Of the 229 sampled claimants Dr. Feingold concluded that, based on the PIQ information, 10.92 percent had exposure only to joint compound. Tr. 1/8/13 at 85:8-24 (Feingold). Dr. Feingold

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<sup>23</sup>Dr. Feingold testified that "a very small contaminant quantity of an amphibole asbestos was present in chrysotile." Tr. 1/8/13 at 71:1-3. He cited a report from 1990 showing that about one-third of chrysotile asbestos samples contained a very small amount of tremolite which is an amphibole. *Id.* at 71:4-6; 71:17. A 1982 study showed that for the most part tremolite does not contaminate commercial chrysotile. *Id.* at 71:18-19. Kim Anderson, Ph.D., a toxicologist and witness for Debtors, also testified that in 20 years he had never found a single study that relates to non-contaminated chrysotile having any causal relationship or association with mesothelioma. Tr. 1/9/13 at 69:23-25.

<sup>24</sup>Debtors contend that because Dr. Welch, Ms. Raterman, Dr. Arnold Brody, a retired molecular biologist and experimental pathologist, did not review the Personal Injury Questionnaires ("PIQS") there is no testimony linking Debtors' products to disease causation. Debtors also contend that there is no foundation for this Court to conclude that their products caused or contributed to any currently pending mesothelioma cases. This estimation proceeding considers as factors causation and the likelihood of the numbers of claims that are valid. The issue is how to evaluate factors and, given Debtors' reluctance to use only jury verdicts to value their liability, we are left with their settlement history. This estimation must assess claims likely to be filed against Debtors in the future based on history and the amount those claims would likely be paid based on history.

testified that chrysotile itself does not cause mesothelioma but can be used to induce mesothelioma, nonetheless. Tr. 1/8/13 at 109:22-110:4 (Feingold) (“There may be extreme examples of chrysotile exposure in the third world, which amount to almost the same thing as direct injection of chrysotile into the peritoneum of rodents”). He stated that those exposed to a combination of chrysotile and, for example, amosite have no greater risk of developing mesothelioma than those exposed only to amosite. Tr. 1/8/13 at 110:17-22 (Feingold). He testified that the studies that show that chrysotile alone causes mesothelioma were incorrect for one reason or another, primarily because another form of asbestos was found in the lung either instead of or in addition to chrysotile. Tr. 1/8/13 at 115:2-116:6 (Feingold).

Arnold Brody holds a Ph.D. in cellular biology and has done extensive work in experimental pathology for asbestos-related diseases. He has conducted animal studies and cellular induction studies and has authored many articles. He testified that chrysotile asbestos is highly toxic to humans and explained how injuries occur at the cellular level. *See* Tr. 1/9/13 at 183-216 (Brody). Dr. Brody described the process by which exposure to asbestos causes disease. He testified that while many asbestos fibers are deposited in the breathing spaces of the lung, many translocate into the blood and lymphatic systems of the body and, from there, to the lung. Tr. 1/9/13 at 193:1-194:24 (Brody). The pleura of the lung is the target site where chrysotile asbestos tends to break into smaller and smaller fibers which makes it more easily transported through the body. Tr. 1/9/13 at 195:13-196:13 (Brody). He explained the molecular and cellular changes that occur leading to the development of cancer. Tr. 1/9/13 at 196:21-206:3 (Brody). Dr. Brody has conducted his own experiments in an effort to establish, *inter alia*, the relationship between chrysotile asbestos and mesothelioma; in all the studies he has done he has used only a single type of asbestos fiber in each. Tr. 1/9/13 at 206:4-208:7 (Brody). His research established a link between chrysotile and mesothelioma. He agreed that the results he found with respect to chrysotile were created with higher concentration exposures and that it would be more difficult to initiate the disease response at low doses. Tr. 1/9/13 at 210:16-18 (Brody). He was careful to point out

that his research is not proof of causation but of how asbestos invades the body and results in disease and the research could not identify the amount of asbestos fibers that would be necessary to induce mesothelioma. Tr. 1/9/13 at 211:11-15 (Brody). That is, no threshold has been specified for mesothelioma with respect to disease in humans. Tr. 1/9/13 at 214:4-7 (Brody).<sup>25</sup>

More recent studies than those cited by, e.g., Dr. Anderson, indicate that chrysotile is more potent than identified in prior studies. Dr. Welch described the studies in light of one of Debtors' arguments, that chrysotile uncontaminated with tremolite does not cause mesothelioma. She did not accept Debtors' contention. She cited a peer-reviewed study of a chrysotile mine in Balangero, Italy, where there is no tremolite, that showed an increased number of mesothelioma cases between 1990 and 2005. Tr. 1/10/13 at 19:11-18 (Welch). This supports Dr. Welch's opinion that as time goes on, more of those exposed to chrysotile will develop mesothelioma and die from it.

Another study by Piolatto and Pira looked only at mine employees. Tr. 1/10/13 at 19:23-24 (Welch). A third study (Mirabelli) looked at all cancers in that area of Italy and found much more cancer related to the chrysotile mine even though the people were not direct employees in the mine, including office workers and those who worked for a subcontractor of the mine. Tr. 1/10/13 at 19:24-20:11 (Welch).

The Loomis cohort, regarding a textile factory in North Carolina where there was "tiny" tremolite contamination, showed eight mesothelioma cases. Tr. 1/10/13 at 20:22-21:6 (Welch). There were two plants. One (Plant 3) used a small amount of amosite asbestos in one department but three of the eight mesothelioma cases were not in that department although the victims worked in Plant 3. In Dr. Welch's opinion these three were not exposed to amosite and the study concluded that their mesothelioma was

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<sup>25</sup>The parties disputed whether or not there is a safe level of asbestos exposure below which one would not contract mesothelioma. The testimony was consistent that while it may be possible that there is a level of exposure which will not cause mesothelioma, no such threshold has been established.

caused by chrysotile. Tr. 1/10/13 at 21:7-12 (Welch).

In 2011 a paper was published about a peritoneal mesothelioma<sup>26</sup> case in a person who worked in a part of the Carey Mine in Quebec where there was little or no tremolite or other amphibole contamination. Tr. 1/10/13 at 21:13-23 (Welch). He had no other exposure or other asbestos work. *Id.* We therefore credit Dr. Welch's opinion regarding the potency of chrysotile and do not credit Dr. Feingold's and Dr. Anderson's opinion that it does not cause mesothelioma.<sup>27</sup>

Again with respect to dose, Dr. Welch testified to two epidemiologic studies, Iwatsubo and Rodelsperger, which focused on mesothelioma cases where exposure to chrysotile was short-lived. Tr. 1/10/13 at 21:24-24:14 (Welch). These controlled studies showed an excess risk of mesothelioma at very low levels of exposure. The Greenberg Davies case series involved a number of mesothelioma cases with respect to which detailed histories were taken. It and other case series, including Borow and Skammeritz, include cases with short-term exposure, in some instances a matter of weeks. Two other studies, Madkour from Egypt and Pan from California, mapped proximity of residents to occurrences of mesothelioma. Both were peer reviewed. In the Madkour study mesothelioma cases occurring over a mile from the plant were found. Tr. 1/10/13 at 23:2-25 (Welch). The Pan study mapped the proximity of residents to

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<sup>26</sup>Mesothelioma can develop in various aspects of the tissue surrounding the lung. Current studies link peritoneal mesothelioma to chrysotile. Dr. Brody explained how this occurs. Tr. 1/9/13 at 189:25-197:12; 201:4-203:21; 205:1-208:7; 210:3-212:8; 214:4-215:12 (Brody).

<sup>27</sup>Dr. Anderson opined that the 40 studies Dr. Nicholson did comparing different fiber exposure circumstances and concluding that chrysotile is a potent causative factor in producing mesothelioma were situations where the exposure was not solely to chrysotile. Tr. 1/9/13 at 121:2-8 (Anderson). Dr. Welch testified that the EPA convened a science advisory board which concluded that the risk assessment that the EPA had always used, one which did not differentiate among types of asbestos fibers with respect to potency, should continue to be used. Tr. 1/10/13 at 33:10-11-34:1-5 (Welch) (model was not strong enough to be able to say that chrysotile was less potent than amosite). We credit the testimony that supports the potency of chrysotile. It is supported by the weight of the evidence and more recent studies than those Dr. Anderson relied on.

serpentine deposits (chrysotile is mined from serpentine rock). The study found a relationship between the locations of serpentine outcroppings and the occurrence of mesothelioma cases. The closer to the outcroppings people lived the more likely they were to develop mesothelioma. Tr. 1/10/13 at 24:10-14 (Welch).

Dr. Welch disagreed with Dr. Feingold's proposition that no epidemiology studies exist that show that those who work with asbestos-containing joint compound are at an increased risk of mesothelioma. Tr. 1/10/13 at 24:15-19. She cited a 2001 paper by Stern, a case series out of the National Occupational Mortality survey ("NOMS"),<sup>28</sup> and four others that discuss rates of mesothelioma in painters. Tr. 1/10/13 at 25:24-26:2 (Welch). Dr. Welch testified that the Stern paper examined the operative plasterers and cement masons union and did what is known as a PMR study collecting all the deaths of a specified cohort; all cases were of long-term plasterers and cement masons who were active dues-paying members of a union at the time of death. She also discussed the Fischbein study. All studies considered by Welch found a high rate of asbestosis in drywall workers.<sup>29</sup> Dr. Welch testified that is significant because it generally takes much more asbestos exposure to cause asbestosis than mesothelioma. Tr. 1/10/13 at 29:2-6 (Welch). Dr. Welch testified that if she saw a patient with mesothelioma and the only asbestos exposure was to asbestos-containing joint compound at the levels discussed in the CPSC<sup>30</sup> ban on

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<sup>28</sup>NOMS is run by the National Institute of Occupational Safety and Health ("NIOSH"). Twenty-nine state health departments currently send in mortality information.

<sup>29</sup>Dr. Welch testified that few people register as drywall workers; drywall workers generally are plasterers, painters, or carpenters. Tr. 1/10/13 at 27:12-15.

<sup>30</sup>CPSC is the Consumer Product Safety Commission. The CPSC placed a ban, effective in June, 1978, on asbestos-containing joint compound. Debtors did not remove their asbestos-containing product from the market when first advised of the risk. In fact, Debtors sought an extension of the deadline for removing the product from the market. *See* ACC/FCR Exh. 297, June 20, 1977, letter from Julius Nemeth, Bondex president, to CPSC regarding the then-proposed ban on asbestos in spackling compounds and wall patching materials and requesting a phase-out program with respect to asbestos products "which, having been used for centuries," he  
(continued...)

asbestos joint compound, she would conclude that the joint compound exposure caused the mesothelioma Tr. 1/10/13 at 40:2-9 (Welch).

Susan Raterman, a certified industrial hygienist, has written several articles in the field and previously worked as an OSHA inspector. She testified that, other than that existing in ambient air, there is no known safe level of exposure to any asbestos, including chrysotile, and there is no distinction between amphiboles and chrysotile as far as “safe” levels of exposure. Tr. 1/9/13 at 150:4-6; 151:3-7 (Raterman). She testified to joint compound studies conducted in the 1960s, 1970s and 1980s evaluating air samples taken during mixing, sanding and cleanup of asbestos-containing dry and premixed joint compound products. Tr. 1/9/13 at 158:15-159:1 (Raterman). There is no major difference in the brands of joint compound as to the quantity of fibers released. Tr. 1/9/13 at 159:15-19 (Raterman). We find that, based on these studies and the current state of scientific research in the area, chrysotile has not been ruled out as a cause of mesothelioma, even if the chrysotile is uncontaminated or minimally contaminated with an amphibole asbestos.

#### Market Share and Dose (Exposure)

Debtors’ position is that every dollar paid prepetition to settle mesothelioma cases did not and

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<sup>30</sup>(...continued)

viewed as not an “imminent hazard” and opined that recall of current product would have a disastrous financial impact on small manufacturers such as Bondex. *See also* ACC/FCR Exh. 299, Mr. Nemeth’s remarks dated August 15, 1977, stating that recall would have a drastic effect on small manufacturers, noting that the product had a warning label so consumers could choose a different product, and requesting reconsideration of the 180-day effective date of the ban. A notice on Bondex letterhead over Mr. Nemeth’s signature sent to “All Bondex Customers” and referring to “Bondex Distributors and Dealers” stated that the ban on the sale of asbestos products would be effective June 11, 1978, that “in all probability “ distributors and dealers would have sold “all asbestos-containing wall patching compounds presently in their stocks,” but requesting that they rotate stock to avoid having unsaleable merchandise in stock on the ban effective date. “For all practical purposes, if any Bondex Wall Patching Compounds, presently in stock, are sold prior to the June 11<sup>th</sup> deadline, there will be no difficulty with any improper materials remaining.” ACC/FCR Exh. 365. In 1976 Debtors hired a chemist (Ibrahim Bedros) to develop a formula for Bondex that did not contain asbestos. Mr. Bedros did so in about seven months. 2/22/00 dep. at 26:4-6 (Bedros).



could not reflect their liability to claimants because their market share was de minimis. Debtors' theory is premised on the contentions that by the year 2003, (1) they were being sued by almost half of all those filing mesothelioma suits but neither they nor their predecessor, Reardon, were ever significant players in any asbestos product market, (2) they had a very small share of the joint compound market, and (3) their product accounted for less than one percent of all joint compound sales. However, Debtors' own counsel admitted in deposition that Debtors' market share argument has not been accepted as evidence in the tort system. 11/20/12 Dep. at 46:6-25 (Evert, Jr.). Furthermore, where there was a sympathetic plaintiff with colorable, even weak, product identification, Debtors would settle if the trial risk was deemed too high. Tr. 1/10/13 at 142:11-143:5 (Simon);<sup>31</sup> Tr. 1/9/13 at 269:13-271:13 (Iola). Debtors would settle if they thought that product identification was sufficient to survive a motion for summary judgment. Tr. 1/10/13 at 152:4-9 (Simon). Thus, market share did not govern Debtors' settlement decision.

Dr. Anderson performed an analysis of the information concerning the present claimants against Bondex using the PIQS and his prior reports and materials in Bondex cases. Tr. 1/9/12 at 80:18-21. His analysis related to exposures or doses and any resulting disease or disease process and included three different data sets. First, from the time he was first retained by Bondex in early 2004 until the bankruptcy filing he had been retained in 130 cases for 101 of which he drafted reports.<sup>32</sup> Tr. 1/9/13 at 81:7-8 (Anderson). The second data set used was of 907 cases that were resolved prepetition (provided by Bates White LLC). Fifteen of the 907 were cases for which he had drafted a report and that were also included in the 101 cases. The third set of data consisted of information provided to him relating to 2,753 PIQS of which 1,513 had received quality control evaluation by Bates White or Logan, or both. Dr. Anderson

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<sup>31</sup>Jeffrey Simon is an attorney in Dallas, Texas, who has represented asbestos personal injury claimants for the past 20 years and for the last 13 years has dealt with mesothelioma and lung cancer cases exclusively.

<sup>32</sup>Some of the 130 cases are included in other analyses because of the filing of bankruptcy, some of them settled before he reviewed the data and some were for disease or disease processes other than mesothelioma. Tr. 1/9/13 at 81:3-7.

selected ten percent of the 1,513 PIQS (151). Of the 101 cases for which he had done reports he created five categories: do-it-yourself (DIY-ers), drywallers, bystanders, laundry exposure, and a combination of the above. Tr. 1/9/13 at 81:9-21 (Anderson). As a result of his analysis he concluded that most of the cases reflected exposure to amphiboles from non-Bondex products and that about 7 percent of the cases may have been exposed to a material dose of asbestos contained in Debtors' joint compound products. That outcome was essentially the same as between the 907 and the 101 cases. Tr. 1/9/13 at 82-87.

Debtors contend that their limited market share made it "statistically improbable that the Debtors' products were a contributing cause of more than 50% of the mesothelioma cases filed in the United States." Doc. No. 3334 at 14. Statistics, however, do not tell the whole story. Between 1960 and 1978 Debtors sold over 10 million bags of their asbestos-containing Bondex joint compound in 48 states. *See* 1/7/13 Tr. at 186:12-189:23 (Martin). *See also* 3/13/09 Dep. at 33:15-18 (Fleming) and 10/12/12 Dep. at 102:6-13 (Tompkins). There is also evidence that even though June 11, 1978, was the deadline for selling asbestos-containing joint compound, it is possible that Bondex distributors continued to sell it through July, 1978, depending on how the distributors and dealers rotated their stock. 10/12/12 Dep. at 102:6-19 (Tompkins).

Moreover, during the estimation trial a video, identified as the "Longo video," was shown of workers mixing Debtors' dry product. It showed an extreme amount of dust, so much so that the worker was barely visible. Tr. 1/10/13 at 149:13-19 (Simon).<sup>33</sup> *See* ACC Demonstrative 1005 (still photographs taken from the video). The video demonstrates that any person who mixed or who was in the area where the mixing occurred was exposed to an extraordinary quantity of airborne particles. This visual display of the huge volume of dust that becomes airborne when a bag of the product involved here is opened and

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<sup>33</sup>Jeffrey Simon is an attorney in Dallas, Texas, who represents plaintiffs with respect to product safety matters. For the last 20 years he has concentrated on representing people with asbestos disease. For the last 12 or 13 years almost all the cases have been mesothelioma cases. Tr. 1/10/13 at 138:5-15 (Simon).

mixed with water, so as to be manually applied to a wall to seal the joints, is clear demonstration that anyone exposed (potentially 40 million people, *see text infra*) could inhale the product and potentially develop an asbestos disease. Thus, the number of claims, and Debtors' potential responsibility for them, is apparent.

Debtors maintain that mesothelioma is a dose-responsive disease and the normal and expected use of their products would not constitute a substantial contributing factor to a claimant's mesothelioma. Debtors' expert, Dr. Denise Martin, is a senior vice president with NERA Economic Consulting. She concluded that Bondex's contribution to dose in the Nicholson group was very small. Tr. 1/7/13 at 181:8-10 (Martin). At the low end she estimated ".08 percent to eight one-hundredths of one percent of the dose out there could potentially have been contributed by Bondex. At the high end making these very extreme assumptions about how long it would take and how intensively exposed a drywaller would be, we estimate it's .77 percent so eight-tenths of one percent." Tr. 1/7/13 at 181:10-16 (Martin). Dr. Martin testified that "we're finding very consistent results here. It's not that dose really makes a difference. Taking into account dose we still find Bondex's share of exposure is extremely small." Tr. 1/7/13 at 181:17-20 (Martin). She explained that it is "hard to understand from a statistical perspective how it's possible that a company that had such a small share, no matter how you measure it, measure it in pounds, measure it in fibers, measure it in dose, could have somehow come into contact with such a large proportion of the expected future mesothelioma incidences from any source." Tr. 1/7/13 at 182:1-6 (Martin).

Dr. Martin undertook a statistical analysis of the percentage of the total dose contributed by all asbestos products that could be attributed to Debtors' products, focusing on the proportional contribution of Debtors with respect to the asbestos-containing products market. She concluded that that proportional contribution could not lead to the large proportion of claims being filed against Debtors. Doc. No. 3475, Tr. 1/7/12 at 191:14-18 (Martin). We disagree. Dr. Martin did not analyze the number of people that may

have been exposed to Bondex products notwithstanding the market share and dose analysis. She conceded that there could have been as many as 40 million people exposed to Debtors' products.<sup>34</sup> Tr. 1/7/13 at 190:8-191:2 (Martin). As noted, chrysotile has been found to be more potent than previously thought and the number of mesothelioma cases from exposure to chrysotile alone is increasing. These factors - millions of potentially exposed people, high volume of airborne dust, and increasing medical evidence of chrysotile-induced asbestos diseases lead us to conclude that Debtors will face claims and future demands in large numbers and will be liable.

#### Experts' Estimation Opinions

We find the testimony of Drs. Vasquez and Peterson persuasive and, as will be seen below, determine that the estimated amount of claims Debtors will face going forward is between the lowest and highest numbers in the ranges provided by these witnesses. We do not credit Dr. Mullin's testimony as applied in this case.

We begin by looking at how Debtors themselves treated their estimates of what was needed to pay claims. International established its first asbestos-related reserve during the fourth quarter of fiscal year 2003. ACC/FCR Exh. E036 at 16. The reserve, funded by a one-time charge of \$140 million, was

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<sup>34</sup>The fact that Debtors had a small market share does not necessarily translate to fewer people being exposed to the asbestos in its product. The market for its joint compound was the do-it-yourself (DIY) home project market so a single purchase could have exposed an entire family. Additionally, some small contractors used the joint compound. Tr. 1/10/13 at 191:20-192:8 (Peterson) (Debtors "targeted, for the most part, not exclusively, but for the most part, targeted a fairly narrow market of people exposed to asbestos, quite a broad range. And they targeted do-it-yourselfers, home improvement people, people who worked on their own projects. And they also -- and they sold through retail companies, paint stores, hardware stores, major national retailers. And they sold primarily to both homeowners and individuals and small handymen, but also to painting and constructions contractors, carpenters, people like that that would do drywalling routinely. So it was basically both in homes and in commercial establishments, but it was basically small construction projects and companies -- entities that were small themselves, small businesses").

considered “sufficient to cover [International’s subsidiaries’] asbestos related cash flow requirements for approximately three years.” ACC/FCR Exh. E036 at 16. The reserve was expected to last until fiscal year 2006. During the quarter ending November 30, 2004 (second quarter, fiscal year 2005), International concluded that the \$56.0 million balance of the original \$140 million reserve “would not likely be sufficient to cover their asbestos-related cash flow requirements for the remainder of the full three-year period originally contemplated by the reserve.” ACC/FCR Exh. E038 at 16. Therefore, International concluded that an increase of \$47.0 million in their existing reserve would be appropriate to cover “any incremental cash flow requirements through fiscal year 2006 not covered by the \$140 million reserve.” ACC/FCR Exh. E038 at 16. In the third quarter of 2006, it was determined that an additional \$15 million was needed and by the fourth quarter of fiscal year 2005, International was forced to add \$16 million more to the asbestos reserve. ACC/FCR Exh. E038 at 16.

In the third quarter of 2006, International retained Crawford & Winiarski (“C&W”), an independent, third-party consulting firm with expertise in the area of asbestos valuation work, to assist in calculating an estimate of its liability for unasserted potential future asbestos-related claims. ACC/FCR Exh. E039, referring to Exh. 13.1, p. 51, financial information contained in 2006 Annual Report to Shareholders. As International reported to the SEC, C&W’s methodology consisted of an analysis of the historical rate at which the Debtors paid mesothelioma claims, the Debtors’ historical settlement averages, and the Debtors’ historical defense costs and the relationship of indemnity payments thereto. ACC/FCR Exh. E039, at Exh. 13.1, p. 51. Based on the review by C&W, International again increased its reserve at the close of fiscal year 2006. ACC/FCR Exh. E039, at Exh. 13.1, p. 51. This time, however, International took an asbestos-related charge of approximately \$335.0 million to cover potential future claims through May 31, 2016. ACC/FCR Exh. E039, at Exh. 13.1, p. 51. In fiscal year 2008, International added \$288.1 million to its existing asbestos reserve to cover potential future claims through May 31, 2028. ACC/FCR Exh. E041, at Exh. 13.1, p. 58. This brought the total “asbestos-related balance

sheet liabilities” as of May 31, 2008, to \$559.7 million. ACC/FCR Exh. E041, at Exh. 13.1, p. 58.

International also disclosed the specific methodology relied on by C&W to calculate its estimates of unasserted potential future asbestos-related claims. C&W’s methodology is similar to that used by Drs. Peterson and Vasquez in their estimations of mesothelioma claims in these chapter 11 cases and bears little resemblance to Dr. Mullin’s. As stated in Note I of the Management Discussion & Analysis:

The methodology used by C&W to project our liability for unasserted-potential future-asbestos-related claims included C&W doing an analysis of: (a) widely accepted forecast of the population likely to have been exposed to asbestos; (b) epidemiological studies estimating the number of people likely to develop asbestos-related diseases; (c) historical rate at which mesothelioma incidences resulted in the payment of claims by us; (d) historical settlement averages to value the projected number of future compensable mesothelioma claims; (e) historical ratio of mesothelioma-related-indemnity payments to non-mesothelioma indemnity payments; and (f) historical defense costs and their relationship with total indemnity payments.

As part of this review and evaluation process, the credibility of epidemiological studies of our mesothelioma claims, first introduced to management by C&W some two-and-one-half years ago, was validated. At the core of our evaluation process and the basis of C&W’s actuarial work on behalf of Bondex, is the Nicholson Study. The Nicholson Study is the most widely recognized reference in bankruptcy trust valuations, global settlement negotiations and the Congressional Budget Offices’ work done on the proposed FAIR Act in 2006. Based on our ongoing comparison of the Nicholson Study projections and Bondex’s specific actual experience, which continues to bear an extremely close correlation to the study’s projections, we decided to extend our asbestos liability projection out to twenty years. ACC/FCR Exh. E041, at Exh. 13.1, p. 58.

For the year ending May 31, 2010, International advised of the deconsolidation of Bondex and SPHC due to the bankruptcy filing. ACC/FCR Exh. E043, at Exh. 13.1, p.62. On May 30, 2010, the day prior to the Petition Date, Bondex had recorded an asbestos related product liability of \$397.7 million. ACC/FCR Exh. E043, at Exh. 13.1, p.62. In the two years prior to the petition date, International and its subsidiaries made approximately \$162 million in asbestos-related payments. ACC/FCR Exh. E043, at Exh. 13.1, p.62.

As will be seen, the evidence established that the \$162 million paid by International in the two

years prepetition and the \$200 million paid by Debtors in the four years prepetition nearly equals the entire sum Dr. Mullin estimated as necessary to satisfy all of Debtors' present and future liability to asbestos victims.

We look first to the opinion of Dr. Vasquez who testified on behalf of the FCR. Dr. Vasquez estimated Debtors' total mesothelioma liability at approximately \$1.6 billion nominal and \$1.1 billion net present value. Tr. 1/11/13 at 80:15-19 (Vasquez).<sup>35</sup> Pending claims were estimated at \$182 million<sup>36</sup> nominal of which \$50 million represented settled but not documented claims. Tr. 1/11/13 at 80:8-13 (Vasquez) (\$132 million nominal is the amount associated with the remaining current claims population). Dr. Vasquez valued future claims at \$1.416 billion nominal, or \$934 million net present value. ACC/FCR Demonstrative 1024 at 2. He used a discount of 3.45 percent, as provided by counsel, and added that amount to the pending claims value to arrive at his total net present value estimate. Tr. 1/11/13 at 80:5-81:3 (Vasquez).

Dr. Vasquez began by calculating the future incidence of disease and claims. He used two alternate approaches to forecast the future incidence of disease and the incidence of future claims and his estimate is the average of the result of the two techniques. Tr. 1/11/13 at 81:11-20 (Vasquez). He also tested alternative scenarios in a sensitivity analysis. Tr. 1/11/13 at 81:20-22 (Vasquez). The estimate of \$1.1 billion net present value represents his mid-point estimate, which he called his "base case forecast," and excludes defense costs. Tr. 1/11/13 at 81:22-25 (Vasquez).

There are two parts to Dr. Vasquez's methodology: first, to establish the starting point for extrapolation and then to determine how many asbestos-related diseases there will be each year. Tr. 1/11/13 at 88:25-89:5 (Vasquez). His methodology depends heavily on Debtors' historical experience.

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<sup>35</sup>We reiterate (*see* note 2, *supra*) that this estimation only concerns mesothelioma as the parties agree that an additional six percent of the total mesotheliomas will be added as the total due for non-mesothelioma asbestos liability.

<sup>36</sup>\$182 million is \$177 million present value. ACC/FCR Demonstrative 1024 at 2.

Tr. 1/11/13 at 89:17-25 (Vasquez).

Looking at Debtors' historical experience, Dr. Vasquez testified that there are three components in establishing the starting point for extrapolation. Tr. 1/11/13 at 90:18–20 (Vasquez). The first component is determining the percentage of all individuals in the U.S. who die from mesothelioma also filed a claim against Debtors. It varies by year. Tr. 1/11/13 at 90:21–91:1 (Vasquez). Second, not every claim will be paid. Tr. 1/11/13 at 91:2-6 (Vasquez). Once he knows how many individuals are likely to sue the Debtors, Dr. Vasquez calculates the percentage of those claims that will ultimately be paid based on the Debtors' history. Tr. 1/11/13 at 91:2–12 (Vasquez). This component recognizes that the claims filed against the Debtors will be of varying quality and that not every claimant will be able to prove his case. Tr. 1/11/13 at 91:3–4 (Vasquez). Many will be paid and many will be dismissed and the ultimate results can vary by year. Tr. 1/11/13 at 91:4-6 (Vasquez). Third, he calculates how much, on average, the claimants are being paid. Tr. 1/11/13 at 91:7–8 (Vasquez). These three components together establish the starting point for Dr. Vasquez's calculation.

In this case, Dr. Vasquez calculated each component on the basis of the most recent data available, using a calibration period of 2008 through 2010. Tr. 1/11/13 at 115:5–116:15 (Vasquez). Selecting this three year calibration window diluted the impact of 2010, which was an estimate based on partial year data. Tr. 1/11/13 at 115:5–21 (Vasquez). Based on this calibration period, Dr. Vasquez used the following values to generate his estimate: 42.5 percent of the individuals with mesothelioma will file a claim against the Debtors, the Debtors will pay 63 percent of those claimants, and mesothelioma claimants will receive \$93,000 from the Debtors on average. Tr. 1/11/13 at 116:15–19 (Vasquez).

Regarding propensity to sue, Dr. Vasquez also explained that, to the extent that the propensity to sue appears to be increasing *ad infinitum*, the phenomenon is more attributable to forecasting errors in which projected incidence falls off too quickly than to what is happening in the real world. Tr. 1/11/13 at 113:10–115:4 (Vasquez). Debtors criticize Dr. Vasquez's method in this regard, asserting that his



analysis has a “serious mismatch” in that for propensity to sue he used claims filing dates while for average settlement value he used claims settlement dates. Doc. No. 3575 at ¶ 192, citing Dr. Mullin’s testimony, Tr. 1/11/13 at 242:20-243:6 and 243:8-11 (Mullin). Debtors’ expert, Dr. Mullin, testified that this “misalignment” is significant because there is a year-and-one-half lag between claim filing and settlement dates. Dr. Mullin contends that by not using the settlement values in the appropriate time period, Dr. Vasquez’s average settlement value is too high. We disagree that Dr. Vasquez’s average settlement value is too high.

Although there may be a “misalignment,” Dr. Peterson’s analysis, using longer periods of time to capture Debtors’ long-term settlement history, came to a result similar to that of Dr. Vasquez. Dr. Peterson’s view, however, is that \$1.1 billion is the low end of a reasonable estimate. Nonetheless, as this is an estimation, which by its nature is unlikely to perfectly predict the future, we find the overall process and estimate of Dr. Vasquez to be credible. Further, the evidence established that Debtors were engaging in more and more group settlements as time went on because, *inter alia*, the claim rate was rising, resulting in lower average payments across the board. Tr. 1/11/13 at 99:5-15 (Vasquez).

Dr. Mullin testified that the propensity to sue is unstable, even though it appears stable, because the expenditures to pay claims (total settlement commitments) should be increasing as well and that is not happening. Tr. 1/7/13 at 263:19-265:18. The reason the settlement amounts are not rising is because the claims are weaker. Debtors’ position is that claimants paid a nominal amount for mesothelioma claims really had no valid claim against Debtors, Tr. 3/4/13 at 28:8-9 (Evert), that such minimal payments (e.g., \$5,000) is such a minute fraction of the overall value of a mesothelioma claim that the payment did not fairly reflect Debtors’ liability. *Id.* at 28:20-23. We reject that theory. As stated by this Court at the hearing on March 4, 2013, if a mesothelioma claim was settled by Debtors for a nominal amount, there must have been some evidence of exposure against other defendants in the tort system but, because Debtors made a payment nonetheless, Debtors must have determined that the claimant either was exposed

to a Bondex product or that Bondex was not going to contest exposure. That is, the settlement indicates that Bondex was either agreeing that there was some liability, or settling the claim so as not to have to prove that there was no liability, which would be its defense in the tort system. Therefore, the settlements, are relevant to estimation because they place a value on the claims. Tr. 3/4/13 at 29:7-20. This value is the best evidence to estimate Debtors' "legal liability," as Debtors' counsel refers to it, which cannot be determined absent agreement by Debtors as to what their liability is or by a jury, neither of which is available.<sup>37</sup> Although Debtors now deny virtually any liability for present or future asbestos personal injury claims, their past actions are not consistent with this new-found theory. Likewise, the evidence on which Debtors rely (e.g., market share, dose, use of only chrysotile asbestos) does not support Debtors' current view.

Dr. Vasquez testified that the propensity to sue is calculated by dividing the number of mesothelioma claims filed against the Debtors by overall incidence of mesothelioma. Tr. 1/11/13 at 113:22-24 (Vasquez). That is, an increasing propensity to sue does not necessarily mean that the actual claims filed against the Debtors are consistently increasing. Tr. 1/11/13 at 114:1-3 (Vasquez). As a matter of "pure arithmetic," an increasing propensity to sue can result just as easily from a forecasting model that predicts the incidence of mesothelioma will decrease more rapidly than it in fact does and the

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<sup>37</sup>Debtors criticize Drs. Peterson and Vasquez because they did not consider the merits of the claims or measure Debtors' "legal liability" for present and future claims and argue that those experts' analyses should therefore be disregarded. See Doc. No. 3531, Debtors' Amended Post-Trial Brief at 43. However, the "amount of contingent or unliquidated claims" must be established. *Owens Corning v. Credit Suisse First Boston*, 322 B.R. at 720. Epidemiological studies provide information about the "likely occurrence of asbestos-related diseases in the population in the future, and litigation history can suggest how many future illnesses are likely to produce claims against" Debtors. *Id.* at 721. Drs. Peterson and Vasquez properly estimated claims according to this instruction. The analysis centers on the number of claims likely to be asserted against Debtors in the future and the amount that will be needed to address those claims, all based on prepetition claiming history. Debtors' criticism regarding claim validity and "legal liability" is without merit in this context. Debtors witnesses consistently testified that they never paid more than Debtors' liability and releases were obtained for all the companies in the family.

reality is that the incidence of mesothelioma is being underestimated. Tr. 1/11/13 at 113:24–114:10 (Vasquez). The underestimation is the effect of using an older Nicholson model. Dr. Vasquez pointed out that Dr. Mullin’s forecast, using an older Nicholson model, predicts incidence of mesothelioma to decrease more rapidly than does Dr. Vasquez’s forecast, based on an average of the Nicholson and the Peto models, which renders the Mullin futures forecast too low.<sup>38</sup> Tr. 1/11/13 at 114:11–25 (Vasquez). Dr. Vasquez incorporated the Peto Approach which also captured the DIY market. Tr. 1/11/13 at 178:22–179:7 (Vasquez). We find Dr. Vasquez’s forecast more reasonable and more predictive, for estimation purposes, of what these Debtors, in their market, would face if they remained in the tort system, and will face as claims presented to a trust, should one result.

Part of Dr. Vasquez’s methodology uses the historical starting point he chose to forecast the number of mesothelioma cases there will be each year going forward. Tr. 1/11/13 at 90:1-11 (Vasquez). He applied the likelihood that Debtors will pay an individual with mesothelioma and the average payment to the forecast of future incidences of mesothelioma to determine the value of the mesothelioma claims Debtors will receive in the future. Tr. 1/11/13 at 89:3-16 (Vasquez). His analysis was not strictly arithmetic; he also considered Debtors’ use of group settlements and its influence on settlement history. He considered the likelihood of such practices continuing in the future. Tr. 1/11/13 at 91:16-21

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<sup>38</sup>Dr. Vasquez testified that Dr. Nicholson’s original report was produced in 1982 and forecast mesothelioma deaths over the next 40 years. In 1991 ARPC and he worked with Dr. Nicholson to make minor modifications to that forecast. The modified forecast was used for several years without adjustment but for the past tens years “or so” they have begun to update the model and forecast every year. Tr. 1/11/13 at 94:17-25 (Vasquez). He explained that this is being done because people are living longer and therefore there are more instances of mesothelioma deaths than the older models predicted. Tr. 1/11/13 at 95:1-3 (Vasquez).

The original model had mesothelioma deaths peaking in 1996 or 1997 but the reality is that as of the date of his testimony in this case, January 11, 2013, the peak had not been reached. Tr. 1/11/13 at 95:15-19 (Vasquez). As updated, the Nicholson model shows mesotheliomas peaking in 2002 or 2003 but, again, the fact is that the number of mesothelioma cases were still being underestimated. The current model shows a 2012 peak. Tr. 1/11/13 at 95:20-21 (Vasquez).

(Vasquez). Dr. Vasquez also considered whether Debtors' experience is in line with general trends in asbestos litigation. Tr. 1/11/13 at 91:22-92:13 (Vasquez). That is, Debtors' historical experience and what is happening in the asbestos environment must be considered together to produce a forecast. Tr. 1/11/13 at 92:10-13 (Vasquez).

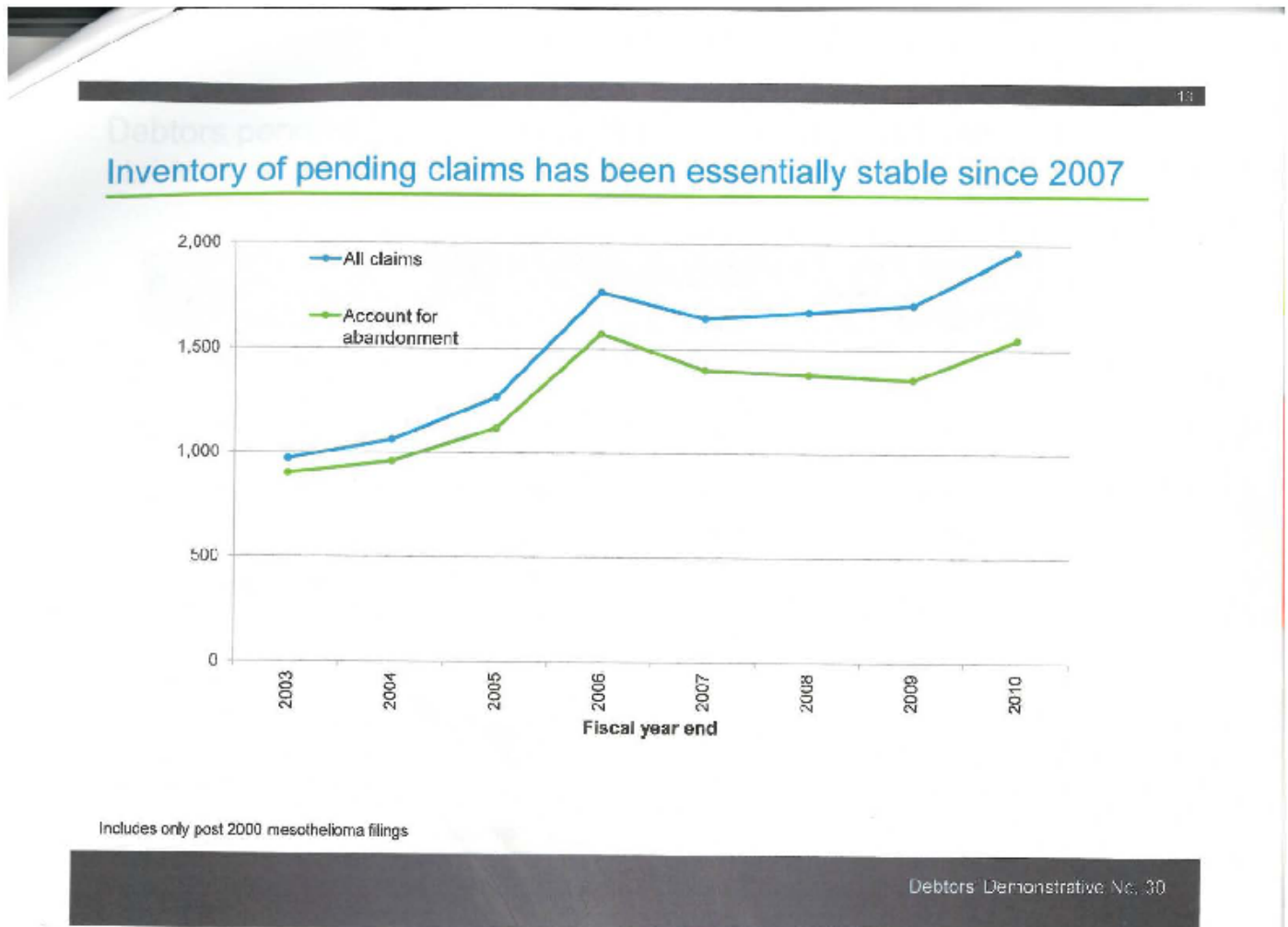
As noted, Dr. Vasquez used an updated version of the Nicholson curve to forecast the future incidence of mesothelioma. That updated curve reflects that people are living longer and, as a result, are contracting mesothelioma at a higher rate, than they were when the Nicholson curve was first designed (1982). Tr. 1/11/13 at 94:11-96:21 (Vasquez). Dr. Vasquez testified that government statistics on mesothelioma deaths show that the original Nicholson model was "way underestimating the total number of mesotheliomas." Tr. 1/11/13 at 95:8-14 (Vasquez). Dr. Vasquez testified that he was the only expert to have used an updated Nicholson curve and that Drs. Peterson and Mullin both used prior versions of the Nicholson curve that predicted peak mesothelioma incidence to have occurred around 2002. Tr. 1/11/13 at 95:15-96:21 (Vasquez). Dr. Vasquez testified that even the updated model has underestimated the number of mesothelioma deaths as it predicted a peak in 2002 or 2003 but mesothelioma cases appear to be peaking only in the last year or two. Tr. 1/11/13 at 95:16-96:9 (Vasquez). According to Dr. Vasquez, this helps explain the fact that the incidence of claims against the Debtors was increasing as the incidence of disease was forecasted to be decreasing. Tr. 1/11/13 at 98:19-22 (Vasquez). That is, the forecasts were inaccurate and did not reflect what actually occurred. He further testified that Debtors' claims resolutions were not keeping pace with the filing of claims against them: "Unambiguously, Bondex is building up an inventory of unresolved claims." Tr. 1/11/13 at 99:5-15 (Vasquez).

The evidence established that Debtors' resolution rate was lagging; their inventory of unresolved claims was building and they were deferring payments. Tr. 1/11/13 at 99:5-15 (Vasquez). *See infra* regarding impact of the inventory of unresolved claims. Debtors' Demonstrative Exhibit 30 (D-30) is a

chart showing Debtors inventory of pending claims as “essentially stable since 2007.” With respect to the chart below, D-30, Dr. Mullin testified that the blue line (i.e., the top line) is every open case in Debtors’ database. The green line (i.e., the bottom line) represents claims that are open but will never be paid. He describes them as abandoned claims. Tr. 1/8/13 at 156:2-9 (Mullin). He believes the number of “never paid” claims will continue to increase. Tr. 1/8/13 at 156:10-12 (Mullin). He described the claims behavior as follows: there was a large increase in claims through 2003. It takes about four years before the claims reach a “new stable level.” Tr. 1/8/13 at 156:21-23 (Mullin). At 2006 the chart shows 1500 pending active claims and that number was relatively stable for a few years. The distance between the blue and green lines will continue to grow as the inventory of “abandoned” claims grows. Tr. 1/8/13 at 156:24-157:7 (Mullin).

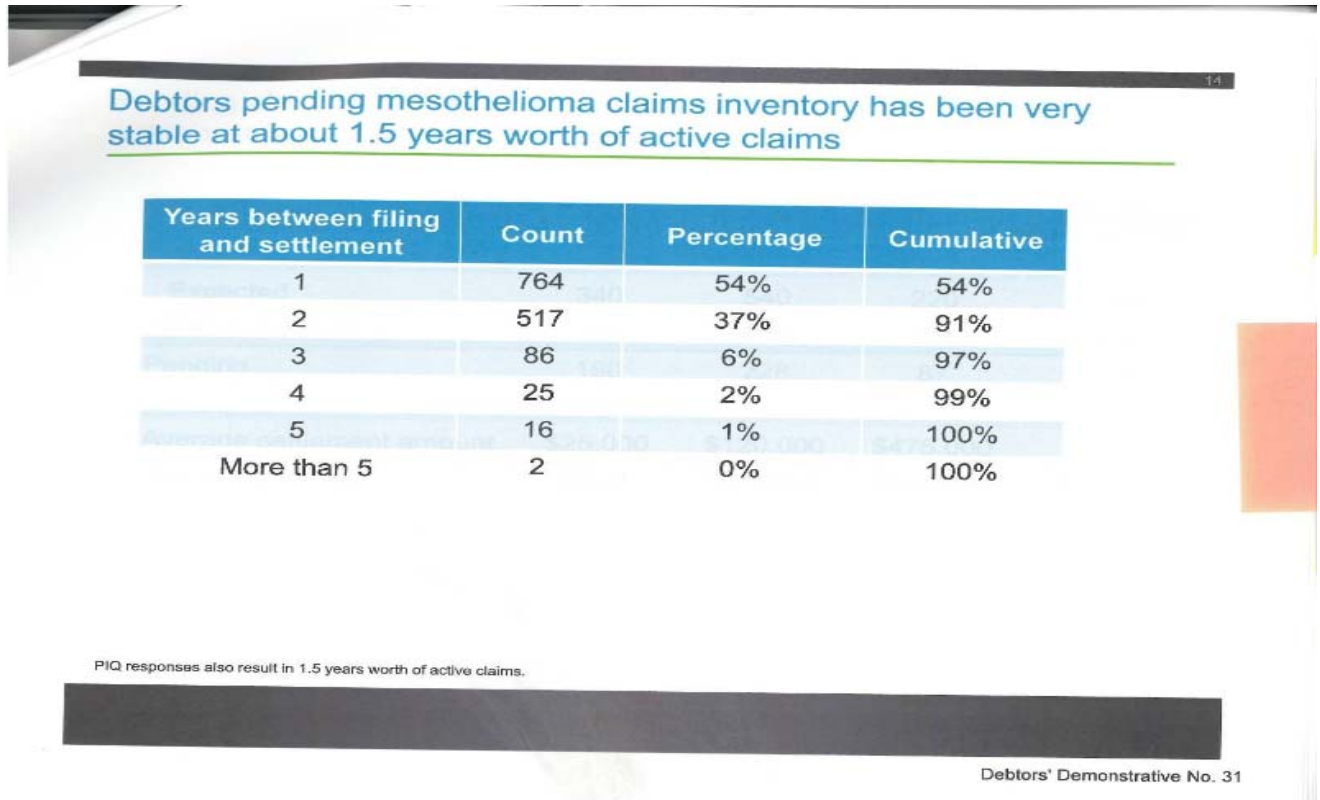
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Debtors' Demonstrative 31 illustrates, as to individually reviewed claims, the years between the filing and settlement of claims, the number and percentage. It indicates that PIQ responses show that claims remain "active" for one-and-a-half years. It shows that 764 claims were resolved within a year of filing; another 517 claims were resolved within two years and after that fewer claims were resolved. Tr.



1/8/13 at 157:10-25 (Mullin). In other words, this chart demonstrates that stale claims (i.e., those over five years pending) do not get paid, a proposition that was accepted by Dr. Peterson as well, and thus are

worth less than more recently filed claims.



Dr. Mullin used this information to assert that Dr. Vasquez's assumption that claims going forward are going to be as valuable as claims in the past is wrong because the claims in the increasing pool are "worthless." Tr. 1/11/13 at 244:20-23. We disagree. Dr. Mullin valued at zero certain claims that he should have considered (those that in the past were paid \$50,000 or less because, in his view, that amount represents savings of defense costs and not "liability").

Dr. Vasquez addressed Debtors' payments. He stated that Debtors paid a larger percent of claims—and achieved dismissals for a smaller percent—when they resolved claims in groups, but paid less per claim on average. Tr. 1/11/13 at 97:1–98:21 (Vasquez). Dr. Vasquez was comfortable in predicting that the amount Debtors would pay to resolve claims going forward would be stable regardless

of the manner in which they went about doing so. That is, if two variables like percent paid and average indemnity are moving in opposite directions, the average amount paid to every resolved claim stabilizes. Tr. 1/11/13 at 97:21–98:11 (Vasquez). In other words, you pay more claims with lower dollars or fewer claims with higher dollars but the average does not change very much because the events offset each other. Tr. 1/11/13 at 98:12-16 (Vasquez).

Dr. Vasquez testified that the cost to Debtors of resolving all of the claims against them was consistent whether those claims were resolved as part of a group or on an individual basis. That is, all resolutions include claims that would have been dismissed if the claims were examined individually. Tr. 1/11/13 at 106:14–108:25 (Vasquez). Therefore, it does not matter to his forecast if claims were or were not part of a group settlement. Tr. 1/11/13 at 109:5-9 (Vasquez) (finding also that group settlements were “a very large percent” of Debtors’ activity over the past three or four years prepetition).

Because Debtors’ claims incidence was increasing at the same time that overall disease incidence was forecast to be decreasing, it was “very, very important that [Dr. Vasquez] get some idea of what’s happening in 2010,” the year of the bankruptcy filing, to determine if these trends held. Tr. 1/11/13 at 100:3–101:6 (Vasquez). According to Dr. Vasquez, the 437 claims that the Debtors had listed in their database for 2010 “was a pretty dramatic undercount of how many claims were actually filed by the end of May.” Tr. 1/11/13 at 101:22–24 (Vasquez). There is a lag between the time a claim is filed and the time it gets into a database. Tr. 1/11/13 at 101:11-21 (Vasquez). When he looked at Debtors’ database, for example, January showed 89 claims were filed. By the time May’s records were available and he looked again, they showed that the number of claims filed in January through April was significantly higher. Tr. 1/11/13 at 103:1-104:9 (Vasquez). He used this information to correct the number of claims that were filed by month and that should have been reflected through the end of May, 2010. The corrected number included 165 claims that had not yet been logged when the Debtors filed their bankruptcies. (Dr. Mullin counted only the claims that had been logged by the date of filing.) Tr.



1/11/13 at 104:11-105:10 (Vasquez). Looking at Debtors' filing history for the past years he was able to project the total mesothelioma claim filings for 2010. He could do this because historically the rate at which Debtors received claims was consistent throughout the year. Tr. 1/11/13 at 102:12-15 (Vasquez).<sup>39</sup> We agree that ignoring the lag in the recordation of claims would not comport with the facts. Each month showed that additional claims had been filed for preceding months in the same year and that was consistent with Debtors' history over the 40 months prepetition. In that period, the average number of claims exceeded 96 per month. Doc. No. 3572 at 59; Tr. 1/11/13 at 103:1-25 (Vasquez) (discussing claims filed per month January through April, 2010; "We're running along at 90 to 100 claims a month and then it falls to 25").

Furthermore, the data established that in the three years prepetition claiming activity against Debtors rose consistently: the claiming rate in 2010 represented a 12 percent increase over 2009 claims and the 2009 rate was 14.7 percent higher than that of 2008. *See* Doc. No. 3521 at 15 (Chart). This trend is consistent with the claiming history between 2002 and 2005: the 2003 claiming rate was 13 percent more than that of 2002; the 2005 claiming rate was 20.8 percent more than the 2004 rate. Doc. No. 3521 at 15. Moreover, the number of law firms suing Debtors increased from about 50 in 2003 to about 100 in 2010. Tr. 1/8/13 at 129:3-14 (Mullin). Thus, there are identifiable factors that support the increasing propensity to sue Debtors aside from the bankruptcies of other asbestos product manufacturers and distributors.

Next, we discuss the testimony and opinion of Dr. Peterson who was called to testify by the ACC.

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<sup>39</sup>Debtors' criticism of Dr. Vasquez for not using the PIQ data is not well founded inasmuch as Debtors themselves admitted that they relied on incomplete data when distributing PIQS to claimants. *See* Doc. No. 1918, Debtors' Motion to Compel Submission of Personal Injury Questionnaires. Dr. Vasquez did examine PIQ data, however, to determine whether Debtors' inventory of pending claims was about the same quality. Removing claims that were no longer alleging mesothelioma or asserting only minimal exposure to Debtors' products resulted in a reduction of compensable claims to approximately 70 percent which is roughly commensurate with the rate at which Debtors historically paid claims. Tr. 1/11/13 at 112:13-15 (Vasquez).

He is a lawyer and a behavioral scientist. He estimated Debtors' total liability for present and future mesothelioma claims to be \$1.841 billion (nominal) and \$1.255 billion (net present value). In Dr. Peterson's opinion, Debtors' tort litigation history was unique in that litigation against it ripened very late<sup>40</sup> and the DIY consumers who used Debtors' products were not part of a network and therefore did not have access to information about asbestos lawsuits as did those who were exposed to asbestos on the job. Tr. 1/10/13 at 194:12-22 (Peterson). Dr. Peterson testified that the average amount Debtors were paying in settlement costs increased significantly by the year 2000 and at the same time Debtors were backlogging claims. The litigation against Debtors had therefore "broken open" before other asbestos defendants filed bankruptcy. Tr. 1/10/13 at 196:12-198:5 (Peterson). Accordingly, Debtors had to adjust their litigation strategy. Tr. 1/10/13 at 198:17-199:4 (Peterson). An aggressive litigation approach had become too expensive so Debtors began settling more claims for fewer dollars and in increasingly larger groups. Tr. 1/10/13 at 199:15-200:23 (Peterson). Some of these settlements were "conditional" in the sense that Debtors would agree to a settlement amount for a group of claims filed by a particular plaintiffs' firm but the claims in the group were subject to substitution if the original claimants could not document exposure to Debtors' products. Tr. 1/10/13 at 206:7-208:1 (Peterson). Thus, every claimant paid in those group settlements had to provide evidence of exposure to Debtors' products.

Dr. Peterson testified that according to his methodology, the value of the claims against Debtors is the product of the number of claims, the percentage of claims paid, and the average settlement value of a claim when it is paid. Tr. 1/10/13 at 210:24-211:2 (Peterson). Dr. Peterson did not consider claims more than five years old concluding that they were unlikely to be paid. Tr. 1/10/13 at 213:7-23 (Peterson).

Dr. Peterson's projection of Debtors' future claims was based on the Nicholson Study's

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<sup>40</sup>The litigation ripened late because asbestos plaintiffs' lawyers had not invested the necessary time and effort to make a case against Bondex. Tr. 1/10/13 at 189:19-20 and 193:23-194:3 (Peterson).

projection of the incidence of asbestos-related cancers (including, but not limited to, mesothelioma). He divided the number of people who filed claims against Debtors for mesothelioma in a particular year by the number of mesothelioma deaths predicted by the Nicholson epidemiological model for the same year to calculate the propensity to sue. That number is multiplied by the future incidence to determine the number of future claims. Tr. 1/10/13 at 218:8-16 (Peterson). Dr. Peterson used the three years immediately prepetition.

Dr. Peterson calculated the projected number of future mesothelioma claims based on two alternate assumptions: (1) a “Stable Propensity” projection, which assumed the propensity to sue would remain unchanged in future years and (2) an “Increasing Propensity” projection, which assumed that, in accordance with the observable increasing trend in claim filings in the years immediately prepetition, the propensity to sue Debtors would increase from 2011 through 2014 before leveling off thereafter. Tr. 1/10/13 at 223:17–226:13 (Peterson). Dr. Peterson testified that the Increasing Propensity model is more plausible. Tr. 1/10/13 at 225:9–226:13 (Peterson).

Dr. Peterson noted that the filings do not indicate the number of claims Debtors pay; rather it is the multiplication of the filings times the payment rate that indicates the number paid. Tr. 1/10/13 at 231:13-15 (Peterson). Dr. Peterson calculated the payment percentage used in his forecast by examining two separate periods: (i) 2001 through 2010; and (ii) 2003 through 2010 and found that approximately 57 percent of resolved claims end up with a payment. Tr. 1/10/13 at 229:11-13 (Peterson). These ranges were chosen because they correspond to the years that he selected for estimating the average values of claims in the future. Tr. 1/10/13 at 229:24-230:3 (Peterson).

He next calculated the average settlement value of the claims that Debtors resolved historically. He used a longer period of time in this calculation because the behaviors that are responsible for the number of claims being filed are different from the behaviors involving the average settlement values. That is, plaintiffs’ lawyers and asbestos claimants determine how many claims get filed and Debtors and

the law firms determine the values. Different considerations affect each of those choices. Tr. 1/10/13 at 231:25–232:9 (Peterson). For this calculation, Dr. Peterson examined the periods: (i) from 2001 through 2010; and (ii) 2003 through 2010. Tr. 1/10/13 at 231:22–232:1 (Peterson). Uncertain as to what litigation and settlement strategies Debtors would pursue going forward, Dr. Peterson examined the average settlement amount over long range periods of time in order to capture the range of settlement strategies that Debtors have used. Tr. 1/10/13 at 234:1–8 (Peterson).<sup>41</sup>

Dr. Peterson calculated the total value of the Debtors’ pending mesothelioma claims to be approximately \$200 million but “if they’re going to do what Dr. Mullen [*sic*] suggested it might be up to [\$]213 [million].” Tr. 1/10/13 at 234:18–235:19 (Peterson).<sup>42</sup> This value accounts for one year’s worth of inflation at 2.5 percent. Tr. 1/10/13 at 235:24–236:3 (Peterson). Dr. Peterson calculated the total value of Debtors’ future mesothelioma claims to be approximately \$1.64 billion nominal (\$1.055 billion net present value), applying a 3.7 percent discount rate. Tr. 1/10/13 at 236:7–237:15 (Peterson). The sum of the values of present and future claims is the total value of mesothelioma claims against Debtors, which Dr. Peterson calculated to range from \$1.6 million to \$1.994 billion (nominal) and \$1.1 billion to \$1.354 billion net present value with \$1.841 billion (nominal) and \$1.225 billion net present value being the “most appropriate forecast.” Tr. 1/10/13 at 237:12–238:9 (Peterson).

Because there are uncertainties in forecasting and because he made certain assumptions, Dr. Peterson applied a sensitivity analysis in order to evaluate the uncertainties in the forecast. Tr. 1/10/13 at 238:13–17 (Peterson). His analysis in this regard reassured him that his numbers were in the center of the range. Tr. 1/10/13 at 239:7–8 (Peterson). When Dr. Peterson used different years to calculate the

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<sup>41</sup>Dr. Vasquez did not calculate his estimate by tracking particular claims from filing to settlement. Instead, Dr. Vasquez measured the propensity to sue and the average settlement value as two separate behaviors: one related to claimants and the filing of claims and a second related to settlements and the amounts that the Debtors agreed to pay.

<sup>42</sup>Dr. Peterson noted that there are more claims that were settled but not documented. Tr. 1/10/13 at 241:18–21 (Peterson).

propensity to sue, the present value of the asbestos claims against the Debtors' estimated liability varied: using a more distant time period decreased the estimate whereas using the most recent years increased the estimate to as much as \$1.4 billion net present value. Tr. 1/10/13 at 239:12–22 (Peterson). He found that using the alternative forecasts would not significantly change the liability. Tr. 1/10/13 at 239:23–240:22 (Peterson). Finally, when Dr. Peterson tested different time periods for calculating the value of claims, he concluded that using different periods could cause his estimate to increase or decrease but that even the low estimate was “within the range” of his preferred estimate. Tr. 1/1/10/13 at 241:15–23 (Peterson). Thus, Dr. Peterson and Dr. Vasquez arrived at roughly the same estimate although their methods and chosen time periods varied somewhat.

Debtors called Dr. Mullin as their estimation expert. Dr. Mullin's analysis did not follow the same steps as the other two experts. Rather, his effort on behalf of Debtors was directed at minimizing liability by dividing Debtors' historical settlement payments to claimants into two basic groups: indemnity payments and implicit defense costs.

Dr. Mullin's implicit defense cost theory has not been quantified in reported cases and his attempt to separate those costs out as a component of settlement that would reduce Debtors' “several share” of asbestos payments is theoretical and never tested. The impact of implicit defense costs is to assume that the totality of payments Debtors historically paid to claimants can be reduced by an amount that Debtors now say represented their effort to avoid legal fees. Debtors contend that their motivation for settlement was to avoid legal fees. Tr. 1/8/13 at 176:2-12 (Mullin). Thus, Debtors now want to subtract out of the amounts they actually paid to claimants the amount Dr. Mullin calculated as the “implicit defense cost” as “outside of the damages or liability they faced.” *Id.* Of course, in settling claims, Debtors did not admit liability; they simply paid an amount agreed upon by the tort victim to be rid of the case. Until this estimation process began, Debtors did not announce this construct, nor did they subtract implicit defense costs out of their reserves. Tr. 1/7/13 at 138:23-140:7 (Tompkins)

(discussing SEC filings).

Dr. Mullin also used a reallocation of liability component from the theory he developed for insurance coverage cases. Tr. 1/7/13 at 237:11-238:9 (Mullin). This theory is based on a conclusion that Debtors settled claims in amounts in excess of their actual liability in order to avoid paying legal fees and costs in the defense of such claims. His theory comes not from asbestos litigation but from insurance coverage litigation where, in settling liabilities, an insurer will commute a policy by paying a lump sum. Tr. 1/7/13 at 236:6-238:9 (Mullin). A major component of results insurers look to is forecasting future liabilities and allocating them to the policy but his theory regarding transaction costs has never been used in the manner in which he is seeking to use it here. *Id.*

Although, *arguendo*, we can accept the proposition that Debtors settled cases, in part, to avoid legal fees, we cannot accept the proposition that Debtors' historical payments must or should be reduced by those amounts that Debtors now attribute to implicit defense costs. Again, regardless of the quantification of defense costs developed in Dr. Mullin's analysis, settlements are not unilateral deals and there is no evidence to suggest that tort plaintiffs would accept \$20,000 less, on average, per settlement. Tr. 1/8/13 at 146:25-148:22 (Mullin). While we agree that settlements typically include a statement that the settlement is neither proof of liability for the underlying conduct that led to the claim, nor that it represents all damages to which plaintiff is entitled, it cannot be rationally doubted that the a settlement places a value on the claim that both parties accept. Otherwise, there would be no settlement. As our task is to estimate what amount will compensate present and future victims exposed to Debtors' products, the value both sides (Debtors and tort victims) historically chose is clearly relevant.

Dr. Mullin proceeded in this fashion.<sup>43</sup> Dr. Mullin examined historical state tort system settlement data and responses to the PIQS distributed by Debtors to current mesothelioma claimants in this case. He determined that Debtors' settlement commitments from 1995 to 1999 were limited and

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<sup>43</sup>We repeat some of our prior analysis for the sake of context.

increased substantially between 2000 and 2002. He found that Debtors' settlement payment history has been relatively stable since 2003 and that Debtors averaged approximately \$50 million annually<sup>44</sup> in payments to mesothelioma claimants in the eight years prepetition. Based on this seeming stability Dr. Mullin began his analysis in 2003. Tr. 1/7/13 at 256:2-257:16 (Mullin).

Dr. Mullin took the Nicholson curve for the projected incidence of mesothelioma as extended out to 2060 (the projected incidence also used by Dr. Peterson) and, assuming that everything in the future would remain exactly as it had been in the recent past, Dr. Mullin applied that curve to the historical experience of the Debtors. He concluded that, had the Debtors stayed in the tort system and absent any significant changes in that system or the Debtors' litigation strategy, their future nominal tort settlement payments to 2060 would fall somewhere between \$600 million and \$800 million nominal. Tr. 1/7/13 at 258:8-259:22 (Mullin); Debtors' Demonstrative Exh. 12. However, Dr. Mullin testified that, although this is what debtors would have to pay, that amount is not a forecast of future claims against Debtors because it did not examine the underlying factors driving the settlement numbers or whether those factors would persist into the future. Tr. 1/7/13 at 261:3-12 (Mullin). Rather, as explained below, only \$435 million nominal (\$300 million net present value) represents the forecast.

In examining the underlying data Dr. Mullin found factors that offset what appeared to be Debtors' stable litigation payment history and opined that, despite appearances, it was unstable. Tr. 1/7/13 at 263:24-264:23 (Mullin). His conclusion of instability was based on a finding that the propensity to sue Debtors went from 25 percent in 2003 to over 40 percent in 2010 while Debtors' settlement commitments were not growing. That is, settlements were relatively stable but an increasing number of claimants were suing Debtors. Tr. 1/7/13 at 264:11-20 (Mullin). In his opinion, settlements should increase as the number of claimants increases. Tr. 1/7/13 at 264:22-23 (Mullin). He concluded

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<sup>44</sup>We credit Dr. Peterson's testimony that Debtors controlled the dates of payment. Tr. 1/10/12 at 244:21-25 (Peterson).

that although trends in Debtors' settlement commitments were stable over the eight years prepetition it was inappropriate to extrapolate going forward because to do so would not properly account for the trends of increasing propensity to sue and decreasing settlement amounts. Tr. 1/7/13 at 266:20-267:1 (Mullin). However, as noted, *supra*, Debtors controlled the timing and amounts of settlements and were building a larger inventory of unresolved claims while stretching out their payments. Tr. 1/11/13 at 99:1-15 (Vasquez).

Dr. Mullin analyzed the 17 group settlements Debtors engaged in with the Cooney, Lanier and Simmons firms from 2007 to 2010 as though Debtors had individually evaluated each claim in the groups. Dr. Mullin considered every settlement other than the 17 group settlements to be individually evaluated claims. Tr. 1/7/13 at 275:18-21 (Mullin). *See also* Tr. 1/8/13 at 257:13-17 (Mullin) ("all the other settlements constitute my individual review, and these vary from settling early in a process on an individual basis to settling – not really settling at all and going all the way to verdict. So, they are at all different points in the discovery process"). That is, his analysis of the group settlements assumed that an individual claimant analysis had been performed. Tr. 1/8/13 at 133:20-23 (Mullin).

Although an exhibit at trial identified what each person in the group settlement received, Dr. Mullin did not use that information because he believed that the plaintiffs' attorneys decided the amount paid to each claimant in the group and Debtors had no input. Tr. 1/8/13 at 133:24-134:8. Dr. Mullin concluded that the group settlements included amounts to avoid defense costs. He testified that most of the group settlements occurred in 2007-2010 and they accounted for 55-65 percent of claims paid, amounts decided upon with no discovery. With respect to the Cooney, Lanier and Simons firms settlements, 90 percent were paid. When claims were individually evaluated only 25 to 30 percent were paid. Tr. 1/8/13 at 135:9-137:10; 138:12-21 (Mullin). He testified that if the claims had been individually evaluated rather than three times as many claims being paid a lower average amount, there would have been a reallocation of payments into high, mid and low value claims. Tr. 1/8/13 at 135:13-



136:9 (Mullin). He concluded that if all the claims had been evaluated on their merits Debtors would have paid \$45 million annually. Tr. 1/8/13 at 146:16-19 (Mullin). However, during the three or four years prepetition Debtors paid \$55 million per year. Tr. 1/8/13 at 146:20-24 (Mullin). Dr. Mullin explained the \$10 million discrepancy this way:

Direct by Mr. Evert:

Q: ... if they could have spent 45 million instead of 55 million, why did they spend 55 million?

A: That's really a pretty simple answer. These group deals-- these large group deals, they pay more per claim, but they pay a lot less to their defense attorneys. So we heard Mr. Tompkins the other day talking about -- saying largely the same things I'm going to say here -- but I can quantify it off the debtors' data. So we've already talked about the beginning part of this chart, but the average resolution cost, so the average payment per resolved claim is about \$45,000 under an individual review. That same cost is about \$63,000 per resolved claim in these large inventory deals. So they're actually paying almost \$20,000 more per resolved claim. But that makes really economic sense when you go and you take into account the defense costs. So to evaluate the claim when we look at the defense expenditures, so I have a period of time with the debtors' data where I -- where those defense expenditures are tracked on a claim by claim basis, so I can go look and it tell me to individually evaluate claims on average costs \$45,000 in defense fees. It only costs about \$5,000 per claim in defense attorney's fees to negotiate these large settlements.

So if you look at the all-in costs from the debtors' perspective, they're paying on the individually evaluated claims 45,000 per claim to the claimants on average and 45,000 per claim to their counsel. That also includes experts or other things that may be there, but they have 45,000 of transaction costs. So it's costing them \$90,000 per resolved claim when they individually evaluate.

In contrast, when they do the large deals they're paying 63,000 to each claimant on average, but they're only paying 5,000 in transaction costs, so [their] all-in cost is \$68,000. So they're actually saving almost -- you know, approximately 20,000 per claim. And this actually follows exactly what economics would predict. There's about a \$40,000 savings in defense costs. You're going from 45,000 per claim to 5,000 per claim. Both parties at the negotiating table know this. If you do it pre discovery, both sides know that there's this big savings in costs. And most economic theory predicts that that savings gets split between the two sides. If you assume they have about equal bargaining

power in that discussion they should split it 50-50. Well, a \$40,000 savings in defense costs means each side should save about -- should pick up \$20,000. The claimants getting about 20,000 more. The debtors are paying about 20,000 less. So that savings in defense costs is just being split up in the negotiation between the two parties.

Tr. 1/8/13 at 146:25-148:22 (Mullin). In short, according to Dr. Mullin, because Debtors saved on defense costs, they paid, on average, \$55 million per year to tort victims rather than \$45 million. On an individual basis, on average, Debtors product identification \$63,000 per claim in the 17 group settlements compared with \$45,000 using individual review. He also determined that claims over five years old would not be paid. Claims receiving less than \$50,000 would not be paid at all if individually evaluated because, in Dr. Mullin's view, they do not reflect liability.

Based on his calculations, Dr. Mullin concluded that settlements Debtors entered into for \$50,000 or less were "nuisance" settlements unrelated to damages the claimant suffered. Tr. 1/8/11 at 185:10-17; 186:18-21 (Mullin). Thus, he modeled them as having zero value for estimation purposes and subtracted out from his estimate of the value of future claims approximately one-third of the total dollar value; that is, a reduction from \$600 million to \$435 million nominal. Tr. 1/8/13 at 189:20-189:25 (Mullin).

Dr. Mullin attempted to separate payments based on damages from payments that were a function of transaction costs. Tr. 1/8/13 at 174:4-9. The basis for this exercise was the *Owens Corning* case (*Owens Corning v. Credit Suisse First Boston*, 322 B.R. 719, 722 (D.Del. 2005)) where the portion of the settlement attributed to punitive damages was removed. However, in *Owens Corning* the amount of the punitive damages had been fixed. His conclusion was, using that theory, that there was "clear excess payment not related to damages" but driven nonetheless by the risk of Debtors being found liable by a jury. *Owens Corning* is inappropriate to the process employed by Dr. Mullin in the effort to devalue the settlements and reduce Debtors' historical payments to their tort victims. To give vitality to Debtors desire to minimize the estimate, Dr. Mullin subtracted out the "implicit defense costs"

and valued at zero claims that settled or would settle for under \$50,000 concluding that those did not reflect actual liability of Debtors. He also considered the group or inventory claims settled by Debtors as not indicating Debtors' liability because the merits of those claims were not examined by Debtors, ignoring Debtors' demand for proof of exposure in many settlements. In reaching his conclusion that the average settlement value ("average resolution cost"), Tr. 1/11/13 at 280:23-24, of the claims in the inventory settlement was \$45,000 (compared to Dr. Peterson's average settlement value of \$73,000 per claim), Dr. Mullin did not forecast how many future claims Debtors would receive, only the number of future claims that he considered to be compensable in the tort system, viewing those as stable. Tr. 1/11/13 at 281:16-23 (Mullin). What he considered to be "nuisance" claims he did not include, as they would not be compensable in the tort system in his opinion. Tr. 1/11/13 at 281:16- 282:10 (Mullin) ("claims that are going to get dismissed doesn't [*sic*] really add anything to the process . . . . In my estimate the dismissals were set to the side entirely"). However, claims must be "appraised on the basis of what would have been a fair resolution of the claims in the absence of bankruptcy" and the value and validity of the claims are determined under state law. *Owens Corning*, 322 B.R. at 722 (D.Del. 2005). Dr. Mullin treated the group settlements as if the claims were individually settled and therefore concluded that the same percentage would have been dismissed. That, however, completely ignores the fact that in many group settlements all claims were paid. Those settlements provided that claims initially presented for payment which did not prove exposure to Debtors' products were discarded ("dismissed" against Debtors) but new claims that did have proof of exposure were substituted. Thus, each claim paid in those group settlements, regardless of the amount paid, had evidence that Debtors were liable due to exposure. One can infer, and this Court does, that the lower the payment of the claim, the less exposure the claimant had to Debtors' product in comparison to the higher paid claims. The Court notes, as shown in the PIQS, that many claimants allege exposure to more than one carcinogen; that is, to products produced by different defendants. By ignoring payments to a certain number or percentage of the claims

included in the group settlements Dr. Mullin's forecast is inaccurate and we do not credit his numbers or his result.

There are other reasons why we do not credit Dr. Mullin's opinion. Dr. Mullin also posited that changes in Texas law from joint and several liability to only several liability resulted in a two to four-fold impact on settlement amounts. However, as Dr. Vasquez testified, Tr. 1/11/13 at 133:22-134:2-11, Dr. Mullin ignored other parts of Texas law which should have been filtered out "to make sure you had solely the effect of several [liability]" and ignored the grandfather rules and clauses in the Texas law, with the result that Dr. Mullin used cases as post tort reform that were not affected by tort reform. The tort reform had very little effect on the downward trend in settlements observed by Dr. Mullin. Tr. 1/11/13 at 133:22-134:11.<sup>45</sup>

Dr. Mullin based at least part of his analysis on the amount of money Debtors chose to pay, that is, what Debtors calculated to fit within their annual budget. Their choice was not based on their total expected costs nor was it aligned with the value of claims already pending. Tr. 1/10/12 at 244:6-245:9 (Peterson). Dr. Peterson testified that Dr. Mullin did not adjust for inflation which is evident by the fact that Dr. Mullin compared payments made in 2003 dollars to those made in 2010. Tr. 1/10/13 at 245:23-45 (Peterson). Dr. Mullin also did not include Debtors' liabilities for all pending claims. Tr. 1/10/13 at 246:6-7 (Peterson).

Regardless of the total value of the estimated claims that Debtors face, Debtors attempt to compartmentalize claims based on exposure to specific eras in their history (i.e., the Reardon era (prior to 1966), the SPHC era (1966 - 1972) and the Bondex era (after 1972). Tr. 1/8/13 at 223:9-224:4 (Mullin). To explain Debtors' view, Dr. Mullin partitioned payments into (a) what Debtors contend is their several share, (b) excluded amounts Debtors assert are related to implicit defense costs as opposed

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<sup>45</sup>We further note that most of the changes to the tort system occurred before Debtors filed bankruptcy so we give little weight to Dr. Mullin's opinion on that score. Those changes were already known to Debtors which continued to settle claims in their chosen fashion.

to the liability portions of payments, and (c) broke this down into three time periods. That is, if a claimant was born in 1968, Dr. Mullin opined that the claimant could not have a Reardon era claim because that era ended in 1966. Tr. 1/8/13 at 229:15-17 (Mullin).

Based on information in the PIQS Dr. Mullin testified that certain of the exposures were alleged to have occurred only in one era: six percent of the historical payments were made to claimants who alleged exposure only in the Reardon era, 7.7 percent were made to those with exposure only in the SPHC era, and 8.6 percent alleged exposure only in the Bondex era. Tr. 1/8/13 at 224:23-226:6 (Mullin). The remaining claimants, approximately three-quarters of the total claims, alleged exposure across multiple eras. Tr. 1/8/13 at 226:14-25 (Mullin) (7 percent of claimants allege exposure that spans the Reardon and the SPHC era but none during the Bondex era; 22.8 percent allege exposure spanning SPHC/Bondex era and almost 50 percent span all three eras). *See also* Tr. 1/9/13 at 16:15-19 (Mullin) (liability in either Reardon/SPHC or SPHC/Bondex or solely SPHC is approximately 85 percent). For claims that alleged exposure in more than one era, Dr. Mullin segmented the amounts Debtors would likely pay for exposure alleged in those periods.

We do not accept this apportionment of liability among the companies. First, most of the claimants allege exposure in more than one era. Second, it is undisputed that Bondex products had a long shelf life. Third, although SPHC was named in about one-half of the Bondex cases, Bondex always got releases for the entire family of companies, regardless of which was sued and neither SPHC nor Bondex raised separate or individualized defenses in the tort system. *See, e.g.*, 1/10/13 Tr. 87:2-8 (Iola).

Bondex's president, John Fleming, testified that he was not aware of cross-claims being filed among the Bondex related entities and only he would have had the authority to sign such a complaint. 9/24/12 Dep. 91:20-92:9. Patrick Haggerty, former national coordinating counsel for Debtors, testified that no indemnification or contribution claims were made. 10/8/12 Dep. at 102:5-11; 272:15-273:8

(Haggerty). *See also* 10/12/12 Dep. 286:14-19 (Tompkins).<sup>46</sup> Thus, SPHC and Bondex collectively dealt with claims regardless of which entity in the family was alleged to be liable.

Debtors also seek to apportion liability among companies through a choice of law analysis. Debtors rely on Ohio Revised Code §2307.97 as limiting successor liability in asbestos tort cases for pre-1966 exposure<sup>47</sup> but at trial witnesses who were asked about the statute either had no knowledge of it or had no knowledge that it was raised as a defense in litigation. These witnesses were in charge of Debtors' asbestos litigation and it is not reasonable to conclude that they would have known nothing about such a defense. *See* 9/24/12 Dep. 130:22-131:11 (Fleming) (president of Bondex in 1999 and managed Debtors' asbestos litigation); 10/16/12 Dep. 167:15-25 (Knoop) (chairman and chief executive officer of Debtors); 10/8/12 Dep. 274:13-275:7 (Haggerty) (former national coordinating counsel for Debtors); 10/12/12 Dep. 187:23-189:8 (Tompkins)<sup>48</sup> (former general counsel); 1/1/12 Dep. 52:3-13 (Bowers) (counsel).

The Ohio successor liability statute does not appear to have been part of Debtors' asbestos litigation history. Furthermore, Debtors throughout their history have paid claims stemming from "the Reardon era." *See* Tr. 1/8/13 at 225:17-20 (Mullin). Inasmuch as those responsible for management of Debtors' asbestos litigation were not familiar with the statute and/or had no knowledge that it was ever used as a defense, we find Debtors' argument in this regard is not persuasive. Even if it had some merit,

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<sup>46</sup>One of Bondex's suppliers until 1966 was T.H. Agriculture & Nutrition ("THAN"), 2/22/00 Dep. 59:12-17 (Garner), but a cross-claim was never filed as far as Mr. Haggerty recalled. 10/8/12 Dep. 102:5-9. Furthermore, in at least one docket (group) settlement, Debtors assigned, with respect to certain plaintiffs, any rights they had against the THAN asbestos trust to the Lanier firm. 10/8/13 Dep. at 99:10-18 (Haggerty). *See infra*.

<sup>47</sup>Debtors purchased Reardon in March of 1966.

<sup>48</sup>We note that Mr. Tompkins was RPM Inc.'s general counsel from 1998 to 2006 and was responsible for retaining asbestos litigation counsel, consulted with them on case evaluations, authorized settlement amounts and was the ultimate decision maker with respect to asbestos litigation and strategy for Bondex.

it is unlikely to reflect a significant diminution in the number of claims filed. We cannot predict whether Ohio law would govern as to any particular claim and note that many of the claims Debtors settled emanated in Illinois.

With all this in mind, at this time, it is pointless to divide up the estimated total claims pool into Debtors' suggested "eras."

We find Drs. Peterson's and Vasquez's estimates supported by evidence in Debtors' claiming and payment history. The estimation process is about claims that are likely to be filed and what Debtors will need to pay in the future to address those claims, one component of which is the merit of claims themselves. The settlement values can vary over the years depending whether, for example, the claims that are settled for a dollar amount but not yet documented or paid are included in the consideration of value. Tr. 1/10/13 at 210:14-15 (Peterson). We conclude that Debtors' liabilities for mesothelioma claims are reasonably estimated at \$1.1 billion, net present value, a number both Dr. Peterson and Dr. Vasquez included in their range of estimates. This estimate considers, *inter alia*, Debtors' small market share, claiming rates against Debtors, and the percentage of claims paid versus the percent dismissed or unpaid.

#### Discount Rate

The parties dispute the appropriate discount rate. Debtors' financial advisor, Timothy R. Coleman of Blackstone Group, LLP, testified that he calculated two discount rates, one using the weighted average cost of capital ("WACC") and the other using the median pension return methods. He testified that the WACC rate is 8.2 percent and the 10 year median pension return rate is 5.5 percent. He testified that the WACC is "sort of the central standard in corporate finance," while acknowledging that other methods are used today as well. Tr. 1/8/13 at 17:11-12. He testified that "the concept of weighted average means the average is between the cost of equity and the cost of debt. Not a lot of people understand the cost of equity because you think equity's free, if you will, there's no interest rate attached

to it, but there's actually a very large cost. So the purpose of this calculation is to look at the company's balance sheet to figure out how much debt there is, how much equity there is, what the ratio is between them and then assess the cost of each against that ratio." *Id.* at 18:1-9. The WACC is a cost that a company effectively pays in the marketplace to raise capital and presumably would require a return of equity cost of capital in order to induce investment. Tr. 1/9/13 at 223:5-13 (Sinclair).

James Sinclair of Charter Oak as the ACC's financial advisor testified that WACC is

a determination of a company's equity capital cost and debt capital cost, and they're weighted proportionately as the debt and equity proportionate to the total capitalization. And this is the cost that a company effectively pays in the marketplace to raise capital. An investor will presumably require a return of that equity cost of capital in order to make an investment -- could be induced to make an investment if it's a public stock offering, or if it's a debt offering the interest rate has to be such that the investor will invest, and that's based on the credit of the company.

Tr. 1/9/13 at 223:5-15 (Sinclair). He has only seen WACC used in financing transactions in determining the value of a company for merger and acquisition purposes, for example. Tr. 1/9/13 at 224:11-14. The WACC has not been used to discount the nominal value of claims to present value. He also testified that the median public pension fund rate is inappropriate because it has a risk aspect as it is a mix of debt, equity, private equity, etc. Tr. 1/9/13 at 224:19-25. In asbestos bankruptcies, the accepted discount rate is a risk-free rate of return which is associated with U.S. Treasury security rates. Tr. 1/9/13 at 220:13-14.

Mr. Sinclair explained that because these are involuntarily injured tort claimants and because the payments are made over the course of several decades, they are not due a risk adjustment. Tr. 1/9/13 at 220:24-221:2 (Sinclair). In asbestos cases the risk-free rate has been applied. *See In re Federal-Mogul Global, Inc.*, 330 B.R. 133 (D.Del. 2005); *In re Babcock & Wilcox Co.*, 274 B.R. 230 (Bankr. E.D. La. 2002); *In re Eagle-Picher Industries, Inc.*, 189 B.R. 681 (Bankr. S.D. Ohio 1995). Mr. Sinclair further noted that not only are the claimants impaired, the asbestos trusts are impaired as they are financed well



under 100 percent and need a risk-free rate in order to have any hope of being able to meet the claims that will arise in the future. Tr. 1/9/13 at 226:16-20. Mr. Sinclair testified that the WACC is used to determine enterprise value for purposes of solvency analyses but is unrelated to estimation of liabilities. Tr. 1/9/13 at 232:19-22. We agree and conclude that the risk-free rate is the appropriate discount rate.

#### Appropriate Risk-Free Rate

Mr. Sinclair concluded that the appropriate risk-free rate is 3.70 percent as of May 31, 2010, the date Debtors filed their bankruptcy petition, as that was the U.S. Treasury security rate on that date.

Richard S. Braun for FTI on behalf of the FCR relied on the Federal Reserve Board Statistical Release dated June 1, 2010, to determine the risk-free rates of return as of May 31, 2010, which rates are associated with U.S. Treasury security rates. In his professional opinion a blended risk-free rate of 3.45 percent as of May 31, 2010, is appropriate. The blended risk-free rate takes into consideration the timing and magnitude of payments reflected in Dr Vasquez's projections. ACC/FCR Exh. 88, Declaration of Richard S. Braun, a Managing Director of FTI Consulting, Inc., financial advisor to the FCR. Although Mr. Sinclair's discount rate is also reasonable, we accept Mr. Braun's as that employed by Vasquez, whose opinion we accept. Conclusion

In considering the estimation issue before us at this time, we are mindful that:

What the briefs illustrate, beyond question, is that we are dealing with uncertainties, and are attempting to make predictions which are themselves based upon predictions and assumptions. Epidemiological studies can give us some information about the likely occurrence of asbestos-related diseases in the population in the future, and litigation history can suggest how many future illnesses are likely to produce claims against [Debtors], but the margin for error as to both of these questions is substantial. Relatively minor variations in underlying assumptions can skew the end result enormously.

*Owens Corning*, 322 B.R. at 721.

After considering all of the evidence, exhibits and arguments presented to the Court, we find that an appropriate estimate for mesothelioma claims, pending and future, is \$1.1 billion net present value.

An additional six percent, that is, \$66 million, must be added pursuant to the parties' agreement to cover non-mesothelioma asbestos personal injury claims. *See* note 2, *supra*. Thus, the total of all asbestos personal injury claims is estimated to be \$1,166,000,000 net present value.

An appropriate order will be entered.

DATE: May 20, 2013

  
Judith K. Fitzgerald **rmb**  
United States Bankruptcy Judge