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NOTES

IN THE
UNITED STATES CLAIMS COURT

JOHNS-MANVILLE CORPORATION and JOHNS-MANVILLE SALES CORPORATION, Plaintiffs, v. THE UNITED STATES OF AMERICA, Defendant.	)	Civil No. 465-83C

PRETRIAL STATEMENT OF THE UNITED STATES

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March 10, 1987

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I. INTRODUCTION

The United States hereby files its Pretrial Statement in the Manville "World War II" case, No. 465-83C, which is scheduled for trial beginning April 20, 1987. Pursuant to Rule 16, RUSCC, and the Order of January 16, 1987, this Pretrial Statement identifies certain evidentiary issues which will require the Court's attention (Part I) and estimates the trial time required to present the government's case (Part II). The largest portion of this Statement is devoted to identification of the government's proposed findings of fact (Part III) and proposed conclusions of law (Part IV). The final sections list the government's trial witnesses (Part V) and the government's exhibits (Part VI). The United States will file its Pretrial Brief, setting out its legal and factual contentions in narrative form, on March 13, 1987.

This Pretrial Statement also responds to Manville's Proposed Findings of Fact, Proposed Conclusions of Law, Witness List and Exhibit List, all filed on November 3, 1986 and revised on January 16, 1987. Because the United States has not yet received copies of a number of the Manville exhibits, and because many of the exhibit copies provided by Manville are illegible, it may be necessary for the United States to supplement its response when legible copies of the exhibits are received.

The United States is today also filing its annotations to Manville's four-volume Proposed Findings of Fact, pursuant to the Order of December 3, 1986. These annotations indicate that, while the parties agree on many factual matters, there are also large and important areas of disagreement. In these areas the United States believes that Manville's allegations are inaccurate, incomplete and misleading. The facts to be proven at trial, as set out below in the government's Proposed Findings of Fact, will show a vastly different picture of the WWII knowledge, relationships, and contractual commitments of the parties than is alleged by Manville.

II. EVIDENTIARY ISSUES

A. Test Claimants/Test Shipyards

Manville's three asbestos-related cases in this Court cover more than forty years and several thousand claimants. In order to make this litigation manageable, the Court ordered in October, 1985, that the initial trial would deal exclusively with No. 465-83C, Manville's "World War II case". However, this case itself is extremely broad, in part because (i) during WWII there were approximately 135 shipyards and (ii) Manville has put at issue in this case 56 closed underlying claims and approximately 335 open underlying claims (Complaint at Appendices B and C). Consequently, on April 11, 1986, the Court entered a Revised

Scheduling Order designating two public shipyards (Boston and Philadelphia) and two private shipyards (Bethlehem Steel's Fore River yard and Consolidated Steel's Orange, Texas yard) as the "test shipyards" for the initial trial. Moreover, the Court further narrowed the scope of trial by designating seven of the closed cases ("pure WWII" claimants) as the "test claimants" (Anderson, Herlihy, Ogle, Roche, Archey, Houten and Clancy). At Manville's request, the parties subsequently agreed to add three additional pure WWII cases (Teta, King, and Smith).

On September 15, 1986, the Court ordered that five cases involving both WWII and post-WWII exposures be added as test claimants (Shulman, Legee, Drinan, Rothman and Impriano). The Court stated unambiguously that these cases were being added, at Manville's request, solely to present the issue of whether exposure during WWII was in itself an adequate basis for recovery against the United States, regardless of the type, duration, or intensity of exposure after the war. The Court stated that discovery would not be expanded to include the post-WWII exposures of these individuals and urged that the government not conduct discovery on this point: "You can assume arguendo any factual situation you want...I would urge you not to discover them in deposition at all on this point, but merely to stipulate that they worked and were exposed in asbestos situations after World War II". Transcript of Proceeding,

September 12, 1986 at 44. See also Order of September 15, 1986 ("Discovery and trial shall not be directed to facts concerning the post-World War II exposure and work experience of these five test claimants, other than to establish that such exposure existed.")

Thus, with regard to both the "pure WWII" claimants and the "mixed" claimants, the evidence at trial is to be limited to matters relevant to asbestos exposures occurring prior to the end of WWII.

B. Damages

By Order of August 4, 1986, the Court provided that "[t]he initial trial in No. 465-83C will include all liability and damages issues arising from Manville's effort to recover from the United States for settlements, judgments, and defense costs incurred in connection with the claims of the test claimants". That Order further provided that Manville's damage claims not relating specifically to the test claimants, including "increased insurance costs, increased business costs, loss of business reputation, loss of business, and other liquidated damages", would be tried separately, at a later date. Thus, the only Manville losses at issue in the April 20, 1987, trial are the settlements paid to the test claimants and the defense costs associated with these claimants.

C. Counterclaims

Pursuant to the Scheduling Order of October 28, 1985, the government's counterclaims will be tried "separately and following decision on plaintiffs' claimants".

D. Other Evidentiary Issues

The United States intends to seek rulings on the following evidentiary issues:

1. Trial subpoenas: The United States expects to seek an order pursuant to Rule 45 (e), RUSCC, authorizing the service of trial subpoenas on numerous trial witnesses residing more than 100 miles from Washington, D.C.

2. Use of deposition testimony: The United States expects to seek an order authorizing the use of deposition transcripts at trial in lieu of live testimony with regard to certain witnesses who are deceased, infirm, or otherwise unavailable to testify live at trial.

3. Hodgson deposition: The United States intends to file a motion in limine seeking the exclusion of the December 11, 1970 deposition of Patrick Hodgson, on the ground that this deposition was not taken in this case or in any case dealing with either asbestos-related issues or indemnification for third-party personal injury liability and the

United States has not had adequate opportunity and motive to question Mr. Hodgson, who is now deceased.

4. Unresolved privilege claims: Manville has refused on grounds of privilege to produce approximately 250 documents from the files maintained by Manville in connection with the fifteen test claimants. Many of these documents deal with Manville's handling and settlement of the underlying tort claims and are consequently important to the issue of the reasonableness of Manville's settlements. If these privilege issues cannot be resolved, the United States expects to file a motion in limine seeking to exclude all evidence regarding its settlements with the relevant test claimants.

Manville has also refused on the basis of privilege to produce approximately 3,000 pre-1947 documents requested by the United States. These documents deal with a variety of WWII issues and will require consideration by the Court before trial if the privilege issues cannot be resolved.

5. California insurance depositions: On February 13, 1987 this Court entered an Order requiring Manville to seek waiver of the March 30, 1983 protective order in the California insurance

litigation in order to produce to the United States the transcripts from depositions of approximately 65 individuals, principally present and former Manville employees. The United States has been informed by Manville that an appropriate motion has been filed and will be argued on March 9, 1987. The United States expects to supplement this Pretrial Statement when these deposition transcripts are made available by Manville.

6. Depositions from underlying tort litigation: Among the witnesses listed to testify for Manville are underlying claimants and other shipyard workers who are deceased. Although not indicated in Manville's pretrial statement, presumably the testimony of these witnesses will be drawn from depositions conducted in the underlying tort litigation. In most or all of these situations the United States was not a party to the underlying litigation, did not attend the deposition at issue, and had no opportunity or motive to question the now-deceased asbestos victim. The United States intends to file a motion in limine to exclude deposition testimony taken under these circumstances.

7. Ruling On Motion for Judgment On The Pleadings: On March 6, 1987, the Court granted the

government's motion for judgment on the pleadings with regard to seven of the nine outstanding claims, leaving principally Manville's Second Claim, based on specifications, and Manville's Fifth Claim, based on "superior knowledge". However, most of the factual issues relevant to the dismissed claims are also material to the remaining claims as interpreted by the Court. This Pretrial Statement is submitted in light of the March 6th ruling and does not address factual issues relevant only to the dismissed claims.

The United States reserves the right to raise additional evidentiary issues at or before trial as may become necessary.

III. ESTIMATE OF TRIAL TIME

The United States anticipates that at least three full weeks will be required for presentation of the government's case. Moreover, additional time may be required, depending in part on the nature and scope of Manville's evidence, the number of witnesses presented by Manville, and the degree to which testimony is required to overcome objections by Manville to the authenticity or admissibility of the government's exhibits.

IV. PROPOSED FINDINGS OF FACT

The United States requests the Court to make the following findings of fact after trial.

A. MANVILLE'S EXTENSIVE INSURANCE COVERAGE FOR ASBESTOS-RELATED PERSONAL INJURY CLAIMS WILL PRODUCE MORE THAN THREE-QUARTERS OF A BILLION DOLLARS IN INSURANCE REIMBURSEMENT

1. Manville Corporation is a diversified international manufacturing and natural resources supplier headquartered in Denver, Colorado. It is the successor to the H.W. Johns Manufacturing Company, founded in 1858, and continues businesses begun 128 years ago.

Exhibit:

Application For An Order Granting Substantive Consolidation of the Debtors' Chapter 11 Cases, at 2 (August 26, 1986), In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witness:

John A. McKinney.

2. Manville Corporation directly or indirectly owns all of the issued and outstanding capital stock of Manville Sales Corporation, Johns-Manville Corporation, and each of the following:

Manville Properties
Ken-Caryl Ranch Corporation
Johns-Manville Idaho, Inc.

Allan-Deane Corporation
Manville Investment Corporation
Johns-Manville International Corporation
Manville Canada Service Inc.
Manville Canada Inc.
Manville International Corporation
Manville Export Corporation
Johns-Manville Amianate Canada Inc.
Johns-Manville Canada Inc.
Manville Forest Products Corporation

Manville Corporation's officers and directors are substantially the same as many of the officers and directors of its subsidiary corporations. Corporate policy for all of the subsidiaries is established and implemented by Manville Corporation's executives and board of directors.[1]

Exhibit:

Application for an Order Granting Substantive Consolidation of the Debtors' Chapter 11 Cases, at 2 (August 26, 1986), and Exhibit A, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witnesses:

John A. McKinney;

Richard B. Von Wald.

3. Manville has total assets of over $2 billion.

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[1] Unless otherwise indicated, the term "Manville" is used hereafter to refer jointly to Manville Corporation and its subsidiaries.

Exhibit:

First Amended Disclosure Statement (August 22, 1986), Exhibit III-A, at M-409, Annual Report Incorporating Form 10-K for 1985, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witness:

W. Thomas Stephens.

4. Manville employs 20,000 persons worldwide and operates more than 100 plants, mines and sales offices. About one-third are outside the United States, including locations in Brazil, France, Spain, Germany, Canada, Argentina, England, Italy and Mexico.

Exhibits:

Application for an Order Granting Substantive Consolidation of the Debtors' Chapter 11 Cases, (August 26, 1986), Exhibit E, Manville promotional brochure, (Bankr. S.D.N.Y.);

Manville 1985 Annual Report and Form 10-K.

Witness:

W. Thomas Stephens.

5. Manville is listed by Fortune magazine as the 198th largest industrial corporation in the United States.

Exhibit:

Fortune, at 182 (April 28, 1986).

6. Manville produces the world's broadest line of insulation products.

Exhibit:

Application for an Order Granting Substantive Consolidation of the Debtors' Chapter 11 Cases (August 26, 1986), Exhibit E, Manville promotional brochure, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witnesses:

John A. McKinney;

W. Thomas Stephens.

7. One of the principal products in Manville's Specialty Products group is insulation contracting, i.e., the installation of insulation.

Exhibit:

First Amended Disclosure Statement (August 22, 1986), Exhibit III-A, at M-441, Annual Report Incorporating Form 10-K for 1985, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witnesses:

John R. McKinney;

Richard B. Von Wald;

Hugh Jackson.

8. At all times relevant to this litigation Manville was the largest supplier of asbestos and asbestos-containing products in the world.

Exhibit:

Plaintiffs' Reply to Defendant's First Amended Counterclaim, Paragraph No. 137 (March 2, 1984), admitting Paragraph No. 137 of the First Amended Counterclaim (March 30, 1983).

Witnesses:

John A. McKinney;

Hugh M. Jackson;

Roger Hackney;

Clyde Barnett.

9. Manville divested its domestic asbestos cement pipe operations in 1982. Manville sold its asbestos mining and milling operations in 1983. Manville produced its last asbestos-containing product in 1985.

Exhibits:

First Amended Disclosure Statement (August 22, 1986), Exhibit III-A, at M-437, Annual Report Incorporating Form 10-K for 1985, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Application for an Order Granting Substantive Consolidation of the Debtors' Chapter 11 Cases (August 26, 1986), Exhibit D, Manville 1985 Corporate Profile, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witness:

John A. McKinney.

10. At the end of 1985, Manville announced a major five-year capital spending program of approximately $800 million. This level of spending represents an increase of 50% over recent years.

Exhibit:

First Amended Disclosure Statement (August 22, 1986), Exhibit III-A, at M-437, Annual Report Incorporating Form 10-K for 1985, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witness:

John A. McKinney.

(1) Manville Has Been Sheltered From Asbestos-Related Personal Injury Claims For More Than Four Years While It Negotiated With Its Insurers

11. Manville was first found liable for punitive damages in asbestos personal injury litigation in 1981 (five cases). During the first half of 1982, Manville was found liable for punitive damages in five additional cases. The average punitive damage award against Manville in these ten cases was more than $600,000.

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-31 (September 30, 1986).

Witnesses:

John A. McKinney;

Dennis Markusson;

Richard B. Von Wald.

12. Prompted in part by these punitive damage awards, on August 26, 1982, Manville Corporation and twenty of its subsidiaries filed petitions for reorganization under Chapter 11 of the Bankruptcy Code in the United States Bankruptcy Court for the Southern District of New York.

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at I-5 (September 30, 1986).

Witnesses:

John A. McKinney;

Richard B. Von Wald.

13. The filings under Chapter 11 were not based on Manville's inability to fund normal operating liabilities. Indeed, Manville was "...one of the most financially healthy corporations ever to take such action."

Exhibits:

First Amended Disclosure Statement, at M-29 (August 22, 1986), In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.);

P. Brodeur, Outrageous Misconduct, at 3 (1985).

Witnesses:

John A. McKinney;

Richard B. Von Wald.

14. Immediately prior to Manville's bankruptcy filings, litigation was pending against Manville on behalf of approximately 16,500 persons seeking damages for personal injury resulting from exposure to asbestos.

Exhibit:

First Amended Disclosure Statement (August 22, 1986), Exhibit III-A, at M-454, Annual Report Incorporating Form 10-K for 1985, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witnesses:

John A. McKinney;

Richard B. Von Wald;

Dennis Markusson.

15. As a result of Manville's bankruptcy petition, substantially all asbestos-related tort litigation against Manville has been stayed for the last four and one-half years. During this period few asbestos personal injury tort claimants have received any compensation whatsoever from Manville.

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-31 (September 30, 1986).

Witnesses:

John A. McKinney;

Richard B. Von Wald;

Dennis Markusson.

(2) Manville Will Emerge From The Bankruptcy Proceeding Free Of All Asbestos-Related Personal Injury Litigation

16. A Plan of Reorganization for Manville was confirmed by the Bankruptcy Court on December 18, 1986. Upon final confirmation the Plan will free Manville of all asbestos-related tort litigation.

Exhibit:

Determination of Confirmation Issues, In re Johns-Manville, et al., No. 82 B 11656 (Bankr. S.D.N.Y.) (December 18, 1986).

Witnesses:

John A. McKinney;

Richard B. Von Wald;

Dennis Markusson.

17. As of September 30, 1986, Manville was a defendant in approximately 12,630 pending lawsuits, brought

by approximately 18,030 plaintiffs, alleging personal injury as a result of exposure to asbestos.

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-30 (September 30, 1986).

Witnesses:

John A. McKinney;

Richard B. Von Wald;

Dennis Markusson.

18. The Plan of Reorganization contemplates that Manville's liabilities with respect to these pending asbestos health claims, as well as all future asbestos-health claims, will be assumed by one trust (the "Asbestos Health Trust") and that Manville's liabilities with respect to property damage claims will be assumed by a second trust (the "Property Damage Trust"). Manville will thereafter be protected by injunction from asbestos-related personal injury and property claims.

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-18 (September 30, 1986).

Witnesses:

John A. McKinney;

Richard B. Von Wald;

Dennis Markusson.

19. The Asbestos Health Trust will be funded initially with, inter alia, at least $615 million in proceeds from Manville's insurance settlements. Over time, the total funding available to the Trust (without taking into account Manville stock) is expected to exceed $2.5 billion.

Exhibit:

First Amended Disclosure Statement, at M-33, 34 and 65 (August 22, 1986), In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witnesses:

John A. McKinney;

Richard Von Wald.

20. No punitive damages will be allowed under the Reorganization Plan with respect to present or future asbestos health claims.

Exhibit:

First Amended Disclosure Statement, at M-33 (August 22, 1986), In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.).

Witnesses:

John A. McKinney;

Richard B. Von Wald.

(3) Manville Has Already Received Substantial Reimbursement From Its Insurers For Payments Made To Asbestos Victims

21. Manville purchased primary liability insurance coverage beginning in at least the 1920's. Manville purchased excess liability policies beginning in the 1940s. During the period 1927 through 1980, many different carriers provided Manville with primary and excess comprehensive general liability coverage.

Exhibits:

Affidavit of Richard B. Von Wald, at 9-10 (November 10, 1986);

Exhibit No. 1 to the Von Wald Affidavit.

Witness:

Richard B. Von Wald.

22. By the end of 1981, Travelers Insurance Company had made payments under its policies to Manville (or to asbestos victims on Manville's behalf) of approximately $16 million in connection with asbestos-related personal injury claims. Further, Traveler's paid (or reimbursed Manville for) over $7 million in expenses arising out of Manville's defense of asbestos-related claims.

Exhibits:

Affidavit of Robert B. Von Wald, at 12 (November 10, 1986);

Appendix to Von Wald Affidavit, at 9-10.

Witness:

Robert B. Von Wald.

23. Among the sums reimbursed to Manville (or paid directly) by Travelers was the settlement made by Manville in 1980 with Thomas Drinan, one of the "test claimants" in this litigation.

Exhibits:

Letter from Nancy E. Stead to H. Michael Semler (January 22, 1987);

Letter from Nancy E. Stead to H. Michael Semler (February 10, 1987).

Witnesses:

Richard B. Von Wald;

Dennis Markusson.

24. Home Insurance Company has paid Manville more than $33 million in connection with asbestos-related claims, including $12 million in personal injury liability payments and $7 million in defense costs in personal injury cases.

Exhibits:

Affidavit of Robert B. Von Wald, at 14 (November 10, 1986);

Appendix A to Von Wald Affidavit at 6.

Witness:

Robert B. Von Wald.

25. Manville has also received reimbursement for asbestos-related litigation losses and expenses from Rocky Mountain Insurance Company.

Exhibit:

Von Wald Affidavit at 14.

Witness:

Richard B. Von Wald.

26. Manville has also received reimbursement for asbestos-related litigation losses and expenses from Aetna Insurance Company.

Exhibit:

Von Wald Affidavit at 14.

Witness:

Richard B. Von Wald.

27. Through September 30, 1986, Manville had disposed of approximately 4,260 asbestos personal injury tort claims. Manville made payments to the asbestos victims in connection with approximately 3,200 of these claims.

Almost all of these claims were disposed of prior to the August 26, 1982 bankruptcy petition.

Exhibits:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-30 (September 30, 1986);

Trial Transcript, Vol. 77, at 8832, California Insurance Litigation, Judicial Council Coordination Proceeding 1072 (October 7, 1985).

Witnesses:

Richard B. Von Wald;

Dennis Markusson.

28. The average cost to Manville for all claims disposed of through September 30, 1986 was $16,810 per claim (excluding legal expenses and cases on appeal as of August 26, 1982).

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-3, 30 (September 30, 1986).

Witnesses:

Richard B. Von Wald;

Dennis Markusson.

29. Substantially all asbestos health related disposition costs and legal expenses which were incurred through the filing of the petitions for reorganization have

been charged by Manville to applicable insurance maintained by Manville.

Exhibit:

Form 10-Q, Quarterly Report filed by Manville Corporation with the Securities and Exchange Commission, at II-30 (September 30, 1986).

Witness:

Richard B. Von Wald.

30. Manville has computer printouts ("insurance loss runs") created by Travelers and Aetna which may indicate which, if any, additional underlying claimants in Manville's Claims Court litigation (including the test claimants in this litigation) received funds which were paid by, or reimbursed to Manville by, Travelers or Aetna. However, Manville has stated that it cannot read these printouts and thus cannot identify the underlying claimants with regard to whom it has received reimbursement from its insurers.

31. Manville does not know with certainty which of its payments to the underlying claimants at issue in the three Claims Court asbestos cases have already been reimbursed by insurance and which have not.

Exhibit:

Letter from Nancy E. Stead to H. Michael Semler (February 10, 1987).

Witnesses:

Richard B. Von Wald;

Dennis Markusson.

(4) Manville's Insurers Will Pay Out More Than Three-Quarters Of A Billion Dollars In Connection With Manville's Liability To Asbestos Victims, Including The Test Claimants

(a) Manville's California Insurance Litigation

32. On March 31, 1980, Manville filed suit in the Superior Court of the State of California against twenty-seven insurance carriers who had written liability coverage for Manville. Johns-Manville Corporation, et al. v. The Home Insurance Company, et al., Docket Number 765226.

Exhibit:

Affidavit of Richard B. Von Wald (November 10, 1986) in Support of Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers, at 5 (October 27, 1986).

Witness:

Richard B. Von Wald.

33. In this action Manville requested a declaratory judgment that: (a) each of Manville's insurers was under a duty to provide coverage and to reimburse Manville for all sums which it had paid or would become

obligated to pay by reason of underlying actions; and (b) each of Manville's insurers was bound to provide coverage for asbestos-related injuries to the limits of liability for each year of its respective policies.

Exhibit:

Affidavit of Richard B. Von Wald, at 5 (November 10, 1986).

Witness:

Richard B. Von Wald.

34. Manville contended in the California insurance litigation that "a claimant who has sustained compensable asbestos-related disease resulting from exposure to asbestos has undergone an injurious process which starts immediately upon or shortly after inhalation of asbestos and continues progressively and cumulatively thereafter at least through the date of manifestation."

Exhibit:

Affidavit of Richard B. Von Wald, at 18 (November 10, 1986).

Witness:

Richard B. Von Wald.

35. Manville further contended in the California insurance litigation that "each policy in effect during any

portion of this injurious process is obligated to provide coverage to Manville."

Exhibit:

Affidavit of Richard B. Von Wald, at 18 (November 10, 1986).

Witness:

Richard B. Von Wald.

36. One of the principal issues in Manville's California insurance litigation was whether Manville had insurance coverage during the period 1934 to 1945, a period for which all policies had been lost. Manville contended that each year throughout this period Employers Liability Assurance Corporation ("Employers Assurance"), a predecessor to Commercial Union Insurance Company, insured Manville for comprehensive general liability, including personal injury products liability, in the amount of $250,000 per occurrence. Manville further contended that throughout this period the Employers Assurance coverage applied to all Manville products and that the terms of the policies were substantially identical to the Employers Assurance policies written during the period 1945 to 1951, copies of which were available.

Exhibit:

Final Statement of Claims and Defenses of the Johns-Manville Parties, at 15-17 (January 15, 1985).

37. During the "Phase I" trial in the California insurance litigation, the jury was asked to determine whether the lost Employers Assurance policies relied on by Manville had in fact been issued, and if so, to determine the contents of these policies.

Exhibits:

Manville Memorandum on the Issues Involved in the California Insurance Litigation, at 137-138 (November 10, 1986);

Special Jury Verdict Forms for Use in Phase I of Trial of Johns-Manville v. Reliance and Commercial Union (May 30, 1985).

Witness:

Richard B. Von Wald.

38. During the trial of this issue counsel for Manville argued that the Employers Assurance policies underwent no material change during the period 1934 through 1945, with the exception of the substitution of the word "occurrence" for the word "accident."

Exhibits:

Trial Transcript, Vol. 38, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072, at 4432-4437 (May 10, 1985).

Trial Transcript, Vol. 47, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072, at 5572-5573 (May 23, 1985).

39. During the Phase I trial Manville read into the record portions of the deposition of David Winton, an employee of Manville's insurance brokers from 1935 to 1943, to establish that Manville had personal injury liability coverage and that this coverage did not change materially during the period 1934 to 1945. Mr. Winton testified as follows:

> Q. When does your knowledge of the J-M insurance account connected with your work at Johnson & Higgins begin?
>
> A. November 18, 1935, if it wasn't a Sunday.
>
> Q. When does your knowledge end?
>
> A. When I went in the service, 1943, May.
>
> Q. Now, between November of 1935 and May of 1943 is when you knew about the Johns-Manville matter, and I will call that the period of your knowledge, is that satisfactory?
>
> A. Yes, sir.
>
> Q. During the period of your knowledge did the Employers Liability Assurance Corporation write insurance coverage for Johns-Manville?
>
> A. Yes.
>
> Q. Was products liability coverage included?
>
> A. I believe so.
>
> Q. Can you recall what types of coverage Employers Liability wrote for Johns-Manville Corporation

during the period of your knowledge?

A. And with respect to my particular department?

Q. To the extent that your recollection, yes, sir?

A. Workmen's Compensation with a number of exceptions as to what places, and what is referred to as general liability and property damage insurance.

Q. Do you recall what the term of the policy issued by the Employers Liability Assurance Corporation was?

A. I believe they were all annual policies, but I'm not certain.

* * * * * *

Q. Mr. Winton, at that time what was the meaning of the term 'public liability' as you understood it?

A. Liability is bodily injury or death or damage to or destruction of property of other members of the public, others, non-employees.

Q. Was that form of coverage separate from and in addition to products liability coverage?

A. Not usually. Products liability was an inclusion, if so specified.

Exhibit:

Trial Transcript, Vol. 41, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072, at 4934-4939 (May 15, 1985).

Witness:

David Winton.

40. During the Phase I trial Manville similarly called Paul Locke, a former employee of Marsh & McLennan, Manville's insurance brokers beginning in 1943, to testify that there was no change in the terms of Manville's liability insurance policies during WWII.

Exhibit:

Trial Transcript, Vol. 41, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1972, at 4920-4927 (May 15, 1985).

Witness:

Paul W. Locke.

41. Manville also called Howard Bush, a former employee of Employers Assurance, to testify that Employers Assurance provided Manville personal injury liability insurance from 1934 to 1945 and that the terms of this coverage remained unchanged from year to year.

Exhibit:

Trial Transcript, Vol. 41, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072, at 4899 (May 15, 1985).

Witness:

Howard Bush.

42. During the Phase I trial Employers Assurance argued that if the policies were issued, they covered only a narrow range of products, specifically the same four groups of products mentioned in the existing post-war contracts.

Exhibit:

Trial Transcript, Vol. 38, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072, Opening Statement of Nelson Barry, Counsel for Commercial Union, at 4469-4470 (May 10, 1985).

43. Following the Phase I trial the jury found in Manville's favor that Employers Assurance did issue liability policies to Manville during each year from 1934 to 1945. Further, the jury found that, with certain exceptions the "material terms" of the policies each year from 1934 to 1945 were "the same as or substantially the same as" the 1945-1948 policy.

Exhibit:

Special Jury Verdict Forms for Use in Phase I of Trial of Johns-Manville v. Reliance and Commercial Union, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072 (May 30, 1985).

Witness:

Richard B. Von Wald.

44. The Phase I jury also found that like the immediate post-war policies, Manville's policies from 1934 to 1945 contained specific reference to certain groups of

products. Prior to 1940, there were three such groups: (i) pipe wrapping machines; (ii) acoustical materials, and (iii) home insulation material. After 1940, a fourth group was also listed: (iv) Flat Transite, Asbestos Flexboard, Asbestos Wallboard, and Marinite Flooring. The jury did not specifically address the question of whether the reference to these product groups meant that Manville's coverage was limited to these groups, as Employers Assurance contended, or whether this reference was solely for rating purposes and did not limit the coverage, as argued by Manville. Thus, the jury decision in Phase I did not clearly resolve the scope of the Employers Assurance policies during and before WWII.

Exhibit:

> Special Jury Verdict Forms for Use in Phase I of Trial of Johns-Manville v. Reliance and Commercial Union, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072 (May 30, 1985).

Witness:

> Richard B. Von Wald.

45. Following the jury decision in Phase I, Manville settled its insurance litigation with Employers Assurance (now Commercial Union) for over $27 million. In seeking approval for this settlement from the Bankruptcy Court, Manville stated that one of the factors it considered was the uncertainty still surrounding the issue of whether

the Employers Assurance policies from 1934 to 1945 covered all of Manville's products or only the products which are mentioned in the policies. Manville noted that it had taken the position that "the list of product categories are for rating purposes only and do not operate to limit the coverage."

Exhibits:

Manville's Application for Approval of Settlement Agreement with Insurance Companies and Brokers, at 141 (October 27, 1986);

Affidavit of Richard B. Von Wald, at 46-48 (November 10, 1986);

Manville Memorandum on the Issues Involved in the California Insurance Litigation, at 137-139 (November 10, 1986).

Witness:

Richard B. Von Wald.

46. Employers Assurance provided personal injury liability coverage to Manville from January 1, 1934 through July 1, 1945.

Exhibits:

Special Verdict Forms for Use in Phase I of Trial of Johns-Manville Reliance and Commercial Union (May 30, 1985);

Trial Exhibits Nos. 252, 253, 254, 255, 256, 257, 258, 259 and 730 from Phase I of Johns-Manville v. Reliance and Commercial Union, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072;

Trial Transcripts, Vols. 38, 39, 40, 41, 42, 43, 44, 45, 46 and 47; California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072 (May 10 - May 23, 1985).

Witnesses:

David Winton;

Howard Bush;

Paul Locke;

Richard B. Von Wald.

47. If, contrary to Manville's assertions in the California insurance litigation, Manville's policies from 1934 to 1945 (and beyond) with Employers Assurance were limited to certain product groups, the decision to obtain such limited coverage was made by Manville long before WWII and without reference to or reliance on any Navy policy of self-insurance or assumption of risk.

Exhibits:

Special Verdict Forms for Use in Phase I of Trial of Johns-Manville Reliance and Commercial Union (May 30, 1985);

Trial Exhibits Nos. 252, 253, 254, 255, 256, 257, 258, 259 and 730 from Phase I of Johns-Manville v. Reliance and Commercial Union, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072;

Trial Transcripts, Vols. 38, 39, 40, 41, 42, 43, 44, 45, 46 and 47, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072 (May 10 - May 23, 1985).

Witnesses:

David Winton;

Howard Bush.

(b) Manville's Insurance Settlements

48. On July 18, 1984, Manville entered into a $314 million settlement with three of the insurers involved in the California insurance litigation: Travelers; Home Insurance; and Lloyd's of London (representing more than 100 subscribing syndicates). Travelers contributed $85 million to this settlement, Home Insurance $120 million, and Lloyds $109 million.

Exhibits:

Manville's Application for Approval of Settlement Agreement with Insurance Companies and Brokers (October 27, 1986);

Manville's Application for Approval of its Insurance Settlement Agreement with Travelers Indemnity Company, Home Insurance Company and Certain Syndicates at Lloyd's, London, dated August 2, 1984, Exhibit Vol. 1 - Settlement Agreement.

Witness:

Richard B. Von Wald.

49. On October 27, 1986, Manville filed an application with the Bankruptcy Court for approval of 21 additional settlement agreements with 27 of its insurers,

totalling an additional $417 million in insurance reimbursement.

Exhibit:

Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers (October 27, 1986).

Witness:

Richard B. Von Wald.

50. The 21 settlement agreements covered by Manville's October 27, 1986 Application for Approval extinguished all claims between Manville and the settling insurers arising out of the following policies:

POLICIES	POLICY PERIOD	COVERAGE
AETNA		
01 XN 733 WCA	7/1/75 - 7/1/76	4th Excess
01 AL 260802 SRA	7/1/76 - 7/1/77	Primary
01 XN 1053 WCA	7/1/76 - 7/1/77	6th Excess
985 LG 30516 SRA	7/1/76 - 7/1/77	Primary
01 XN 1405 WCA	7/1/77 - 7/1/78	6th Excess
01 XN 1913 WCA	7/1/78 - 7/1/79	4th Excess
01 XN 2284 WCA	7/1/79 - 7/1/80	4th Excess
AIU INSURANCE CO.		
75 100718	7/1/78 - 7/1/79	4th Excess
75 100719	7/1/78 - 7/1/79	5th Excess
75 101097	7/1/79 - 7/1/80	4th Excess
75 101098	7/1/79 - 7/1/80	5th Excess
ALLSTATE		
630 00928	7/1/75 - 7/1/76	2nd Excess
630 01943	7/1/76 - 7/1/77	2nd Excess
630 03297	7/1/77 - 7/1/78	2nd Excess
630 03298	7/1/77 - 7/1/78	3rd Excess

AMERICAN RE-INSURANCE CO.

M 1050173	7/1/76 - 7/1/77	5th Excess
M 1665370	7/1/77 - 7/1/78	5th Excess
EUR 4000021	7/1/78 - 7/1/79	5th Excess

CENTAUR

CU 00203	7/1/79 - 7/1/80	5th Excess

COMMERCIAL UNION

Policies, as determined in Phase I of the California Insurance Litigation	1/1/34 - 7/1/45	Primary
0-312500	7/1/45 - 7/1/48	Primary
0-312501	7/1/45 - 7/1/48	Primary
0-334350	7/1/46 - 7/1/49	Primary
0-334351	7/1/46 - 7/1/51	Primary

POLICIES	POLICY PERIOD	COVERAGE
S-10497 on pre-printed form ES9024-1	7/1/60 - 7/1/63	1st Excess
E16 8232-001	3/18/66 - 7/1/69	2nd Excess
E16 8232-002	3/18/66 - 7/1/69	2nd Excess
EY 8232-004	7/1/69 - 7/1/72	2nd Excess
EY 8232-005	7/1/69 - 7/1/72	2nd Excess

FIRST STATE

922992	7/1/76 - 7/1/77	7th Excess

GIBRALTAR

GMX 00179	7/1/79 - 7/1/80	5th Excess

GRANITE STATE

80 93032	7/1/76 - 7/1/77	6th Excess
80 93033	7/1/76 - 7/1/77	7th Excess
80 93260	7/1/77 - 7/1/78	6th Excess
80 93261	7/1/77 - 7/1/78	7th Excess
6179 1514	7/1/79 - 7/1/80	6th Excess

HIGHLANDS		
SR 20115	7/1/76 - 7/1/77	7th Excess
INSURANCE COMPANY OF NORTH AMERICA		
XCP 3530	3/18/66 - 7/1/69	2nd Excess
XCP 3628	7/1/69 - 7/1/72	2nd Excess
INSCO, LTD.		
MLI 1309	7/1/79 - 7/1/80	6th Excess
INTERNATIONAL SURPLUS LINES INSURANCE COMPANY		
XSI 5205	7/1/79 - 5/7/80	3rd Excess
XSI 5206	7/1/79 - 5/7/80	5th Excess
LEXINGTON		
GC 550 4610	7/1/75 - 7/1/76	3rd Excess
GC 550 3055	7/1/76 - 7/1/77	5th Excess
GC 550 6117	7/1/77 - 7/1/78	5th Excess
551 1324	7/1/78 - 7/1/79	3rd Excess
551 1483	7/1/79 - 7/1/80	5th Excess

POLICIES	POLICY PERIOD	COVERAGE
LONDON		
881 UKL 1177	7/1/78 - 7/1/80	1st Excess
881 UKL 1178	7/1/78 - 7/1/81	2nd Excess
881 UKL 1179	7/1/78 - 7/1/79	2nd Excess
881 UKL 1180	7/1/78 - 7/1/81	3rd Excess
881 UKL 1181	7/1/78 - 7/1/79	3rd Excess
881 ULL 0931	7/1/79 - 7/1/80	2nd Excess
881 ULL 0932	7/1/79 - 7/1/80	3rd Excess
881 ULL 1218	7/1/79 - 7/1/80	6th Excess
551 UMA 0476	7/1/80 - 7/1/83	1st Excess
881 UMA 0477	7/1/80 - 7/1/81	2nd Excess
881 UMA 0478	7/1/80 - 7/1/81	3rd Excess
881 UMA 0479	7/1/80 - 7/1/81	5th Excess
UNA 0412	7/1/81 - 7/1/83	2nd Excess
UNA 0413	7/1/81 - 7/1/83	3rd Excess
UNA 0414	7/1/81 - 7/1/83	4th Excess

MIDLAND		
XL 2184	3/3/72 - 7/1/72	3rd Excess
XL 2504	7/1/72 - 7/1/75	2nd Excess
XL 2505	7/1/72 - 7/1/75	2nd Excess
NATIONAL UNION		
118 5191	7/1/76 - 7/1/77	4th Excess
122 8559	7/1/77 - 7/1/78	4th Excess
122 8560	7/1/77 - 7/1/78	7th Excess
122 8561	7/1/77 - 7/1/78	8th Excess
123 1971	7/1/78 - 7/1/79	3rd & 5th Ex.
978 2326	7/1/79 - 7/1/80	3rd, 5th & 6th Excess
PEERLESS		
619	7/1/44 - 3/17/48	Excess
829	4/4/47 - 7/1/50	Excess
930	3/17/48 - 7/1/50	Excess
1-245	7/1/50 - 9/11/52	Excess
1-010	Unknown	Unknown
PRUDENTIAL		
DXC 90 1143	7/1/76 - 7/1/77	7th Excess
DXC DX 0308	7/1/77 - 7/1/78	7th Excess
DXC DX 1109	7/1/78 - 7/1/79	5th Excess
PURITAN		
ML 65 00 94	7/1/76 - 7/1/77	1st Excess
ML 65 03 13	3/1/77 - 7/1/77	8th Excess
ML 65 03 55	7/1/77 - 7/1/78	4th & 7th Excess
RELIANCE		
Standard Accident Form	4/30/27 - 1/1/34	Primary
ROCKY MOUNTAIN		
29002	7/1/77 - 7/1/78	1st Excess
29003	7/1/77 - 7/1/78	Primary
29004	7/1/78 - 7/1/79	Primary
SUN		
65 014	4/1/46 - 4/1/49	Primary
65 050	4/1/49 - 4/1/52	Primary
65 087	4/1/52 - 7/1/52	Primary

65 088	7/1/52 - 7/1/55	Primary
65 5115	7/1/55 - 7/1/58	Primary
65 8543	7/1/58 - 7/1/61	Primary
65 11550	7/1/61 - 7/1/70	Primary

Exhibits:

Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers (October 27, 1986);

Appendix B to Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers (October 27, 1986).

Witness:

Richard B. Von Wald.

51. Payments under the 1984 settlement with Travelers/Home/Lloyd's and the settlements covered by the October 27, 1986 application for approval will be made as follows:

Date	Contributing Companies	Amount
Plan Confirmation (assumed to be 7/1/87)	Travelers Home Lloyd's Peerless Highlands Rocky Mountain I Aetna I Aetna II Reliance American Re ISLIC First State Sun Commercial Union	$426,909,645
Ninety days after Plan Confirmation (October 1, 1987)	London	$15,915,905

One year after Plan Confirmation (July 1, 1988)	Aetna I Commercial Union	$11,450,000
One year and 90 days after Plan Confirmation (October 1, 1988)	London	$19,399,732
January 2, 1989	Prudential Gibraltar INSCO Puritan Centaur	$17,768,500
February 15, 1989 One to two years after Plan Confirmation (July 1988-July 1989)	Centaur INA Midland Allstate Rocky Mountain II	$500,000 $110,300,000
Two years after Plan Confirmation (July 1, 1989)	Aetna I Commercial Union	$10,250,000
August 15, 1989	AIU Granite State Lexington National Union	$44,400,000
Two years and 90 days after Plan Confirmation (October 1, 1989)	London	$26,860,919
Three years after Plan Confirmation (July 1, 1990)	Commercial Union	$6,000,000
Four years after Plan Confirmation (July 1, 1991)	Marsh	$41,454,000

Total (undiscounted) Amount of Principal, Interest, Investment Income and Coverage-in-Place to be Paid to the Estate

Between Plan Confirmation
and Four Years After Plan
Confirmation.....$731,208,701

Exhibits:

Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers (October 27, 1986);

Appendix A to Manville Application (October 27, 1986).

Witness:

Richard B. Von Wald.

52. On November 19, 1986 the Bankruptcy Court approved Manville's $314 million settlement with Travelers, Home and Lloyd's and the 21 settlements totalling $416 million covered by Manville's October 27, 1986 application for approval.

Exhibit:

Manville's Application for Approval of its Insurance Settlement Agreement with Columbia and Continental, at 2-3 (December 11, 1986).

Witness:

Richard B. Von Wald.

53. On December 11, 1986 Manville filed an application with the Bankruptcy Court for approval of a $38 million settlement with Columbia and Continental insurance companies. This application was approved on December 18, 1986.

Exhibit:

Manville's Application for Approval of its Insurance Settlement Agreement with Columbia and Continental ("CNA") (December 15, 1986).

Witness:

Richard B. Von Wald.

54. Manville has now reached settlements with all of its insurers involved in the California insurance litigation and consequently, Manville is no longer actively involved in the California insurance litigation.

Exhibit:

Order Approving Manville's Application for Approval of Settlements with Insurance Companies and Brokers (November 19, 1986).

Witnesses:

Richard B. Von Wald;

Dennis Markusson.

55. The payments to be made by Manville's insurers as a result of the settlements approved by the Bankruptcy Court in the last six months of 1986 exceed $731 million.

Exhibit:

Settlement Agreements filed as Exhibits Nos. 41-188, Appendix A, Affidavit of Richard B. Von Wald (November 10, 1986).

Witness:

Richard B. Von Wald.

56. The total amount of insurance reimbursement already received by Manville or to be received by Manville as a result of asbestos-related claims exceeds $825 million. This total includes the following amounts (but does not include sums already obtained by Manville from Rocky Mountain and Aetna insurance companies):

Received from Travelers prior to end of 1981	$23 million
Received from Home Insurance Company	$33 million
1984 Settlement with Travelers, Home and Lloyd's	$314 million
21 Settlements subject to October, 1986 application for approval	$417 million
1986 Settlements with Columbia and Continental	$38 million
	$825 million

Exhibits:

Affidavit of Richard B. Von Wald, at 12, 14 (November 10, 1986);

Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers, Appendix A, at 1-4 (October 27, 1986);

Manville's Application for Approval of its Insurance Settlement Agreement with Columbia and Continental ("CNA") (December 15, 1986);

Order Confirming Debtors' Second Amended and Restated Plan of Reorganization, In re Johns-Manville Corporation, et al. (Bankr. S.D.N.Y.) (December 22, 1986).

Witness:

Richard B. Von Wald.

57. The abovementioned insurance payments and settlements have been made or will be made in satisfaction of all Manville's previously unreimbursed settlements, judgments and defense costs associated with asbestos-related tort claims, including the claims of the test claimants in this litigation. Manville's right to recover against its insurers in connection with the claims of any of the test claimants has been terminated as part of, and as consideration for, these settlements.

Exhibits:

Affidavit of Richard B. Von Wald, at 12, 14 (November 10, 1986);

Manville's Application for Approval of Settlement Agreements with Insurance Companies and Brokers, Appendix A, at 1-4 (October 27, 1986);

Manville's Application for Approval of its Insurance Settlement Agreement with Columbia and Continental ("CNA") (December 15, 1986);

Order Confirming Debtors' Second Amended and Restated Plan of Reorganization, In re Johns-Manville Corporation, et al. (Bankr. S.D.N.Y.) (December 22, 1986).

Witnesses:

Richard B. Von Wald;

Dennis Markusson;

Martin McConnel;

Joseph Gunn.

58. The insurance payments and settlements already made or to be made will reimburse Manville in whole or in part for its payments made to, or in connection with, the test claimants in this litigation.

Witnesses:

Richard Von Wald;

Dennis Markusson;

Martin McConnel;

Joseph Gunn.

59. The insurance reimbursements to be made after final confirmation of the Reorganization Plan will be assigned by Manville largely to the Asbestos Health Trust and will be used, inter alia, to make payments to asbestos victims with open claims, including the approximately 335 underlying claimants with open cases identified in Appendix C to the Complaint in this litigation.

Exhibits:

First Amended Disclosure Statement, Second Amended and Restated Plan of Reorganization and Related Documents (August 26, 1986), Exhibit III-A, at M-462, Annual Report Incorporating Form 10-K for 1985, In re Johns-Manville Corporation, et al., No. 82 B 11656 (Bankr. S.D.N.Y.);

Trial Exhibit Nos. 776 and 777, California Insurance Litigation, Johns-Manville v. Reliance and Commercial Union, Judicial Council Coordination Proceeding No. 1072;

Trial Transcript, Vol. 77, at 8833, California Insurance Litigation, Judicial Council Coordination Proceeding No. 1072 (October 7, 1985).

Witnesses:

Richard B. Von Wald;

Joseph Gunn.

B. THROUGHOUT WORLD WAR II MANVILLE AGGRESSIVELY SOLICITED SALES TO THE UNITED STATES AND REAPED HUGE PROFITS FROM THESE SALES AND BUILT UP TREMENDOUS RESERVES FOR "WAR CONTINGENCIES"

(1) At The Outset Of WWII Manville Had Been Manufacturing Asbestos-Containing Products For Seventy Years And Was The Giant Of the Industry

60. In 1858, H.W. Johns, roofing manufacturer and founder of the asbestos industry, started the H.W. Johns Company in New York.

Exhibit:

Since 1858 The Story of Johns-Manville Has Been a Continuous Record of Research and Development, at 1 (April 24, 1953).

Witnesses:

John A. McKinney;

Roger Hackney.

61. In 1868, the H.W. Johns Company obtained its first patent for an asbestos product and began manufacturing numerous products composed wholly or partially of asbestos fibers. Many of these products came to be recognized as standard articles for mechanical, structural and electrical uses.

Exhibits:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 2 (September 11, 1958).

62. In the 1880's the H.W. Johns Company provided financial backing for asbestos mining operations in Quebec, Canada, in order to assure an adequate supply of asbestos fiber for its expanding asbestos product line. During this period the H.W. Johns Company also acquired an interest in the Asbestos and Asbestic Corporation, an asbestos mining company in Quebec.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 4 (September 11, 1958).

63. During the early 1890s the H.W. Johns Company brought about the consolidation of various companies with interests in asbestos or related products (including Chalmers Spence Company of New York; Shields and Brown Company of Chicago; the Asbestos Packing Company of Boston;

and C.W. Trainer Company of Boston) into what became the H.W. Johns Manufacturing Company.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 3 (September 11, 1958).

64. In approximately 1893, the H.W. Johns Manufacturing Company began the production of asbestos yarns suitable for weaving asbestos cloth.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 3 (September 11, 1958).

65. In 1886, Charles B. Manville and his three sons founded the Manville Covering Company in Milwaukee, Wisconsin.

Exhibit:

Since 1858 The Story of Johns-Manville Has Been a Continuous Record of Research and Development, at 1 (April 24, 1953).

66. In approximately 1890, Manville Covering Company produced a "molded asbestos sectional covering" which was a combination of asbestos and plaster of paris.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 4 (September 11, 1958).

67. In 1900, the Manville Covering Company was first associated in business with the H.W. Johns Manufacturing Company when it purchased the Chicago branch office of the H.W. Johns Manufacturing Company.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 4 (September 11, 1958).

68. A year later in 1901, the Manville Covering Company merged with the H.W. Johns Manufacturing Company under the name of H.W. Johns-Manville Company.

Exhibit:

Since 1858 The Story of Johns-Manville Has Been a Continuous Record of Research and Development, at 2 (April 24, 1953).

69. As a result of this merger, the consolidated company produced roofing and building materials, insulation, packings, asbestos textiles, electrical insulating products, asbestos-containing structural materials, and numerous specialty products containing asbestos.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 5 (September 11, 1958).

70. In 1907, the H.W. Johns-Manville Company acquired the entire assets of the Asbestos Wood Fibre

Company and thereby obtained the services of Charles Norton, a pioneer in asbestos cement products.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 6 (September 11, 1958).

71. In 1912, the H.W. Johns-Manville Company constructed a manufacturing plant at Manville, New Jersey.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 7 (September 11, 1958).

72. In 1916, in order to assure the H.W. Johns-Manville Company a supply of top-quality asbestos fiber, T.F. Manville acquired the Jeffrey asbestos mine in Quebec and all of the assets of the Asbestos and Asbestic Company Ltd. mining company.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 7 (September 11, 1958).

73. In 1922, the H.W. Johns-Manville Company built a manufacturing plant at Waukegan, Illinois.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 7 (September 11, 1958).

74. In 1924, the H.W. Johns-Manville Company built a new manufacturing plant in the city of Asbestos in Quebec, Canada.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 7 (September 11, 1958).

75. In 1925 the H.W. Johns-Manville Company built a manufacturing plant at Pittsburg, California.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 7 (September 11, 1958).

76. In 1927 the H.W. Johns-Manville Company, which had been privately owned by the Manville family, became a publicly-owned corporation called Johns-Manville Corporation.

Exhibit:

Since 1858 The Story of Johns-Manville Has Been a Continuous Record of Research and Development, at 1-2 (April 24, 1953).

77. By 1928, Manville was the industry leader in the field of industrial insulation, including asbestos paper insulation, asbestos felt, magnesia, hair and wool felt products.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 8 (September 11, 1958).

78. In 1928, Manville acquired the Celite Products Company, adding high temperature diatomaceous earth insulation to its product lines.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 8-9 (September 11, 1958).

79. In 1929, Manville set pre-war records for total sales and profits and acquired the Banner Rock Wool Company, the leading producer of rock wool insulations.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 9 (September 11, 1958).

80. In 1929, Manville also obtained from an Italian concern the right to manufacture and sell asbestos cement pipe in the United States.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 11 (September 11, 1958).

81. In 1933, Manville began selling raw asbestos fiber from its Canadian mine on the open market. Annual sales of this fiber were more than $2 million by 1940.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 13 (September 11, 1958).

82. In March 1937, Manville began production of a new line of products (developed by Manville research between 1930 and 1935) at a plant in North Billerica, Massachusetts. This was the "Marinite" line of products.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 14 (September 11, 1958).

83. By the late 1930s Manville was the largest producer of asbestos-related products in the world, with average annual sales during the five-year period 1934 through 1938 of $44.2 million.

Exhibit:

Arthur B. Cummins, A Century of Service with Johns-Manville, at 14 (September 11, 1958).

(2) Manville's Wartime Business Was Substantially The Same As Its Pre-War Peacetime Business And Manville Continued To Aggressively Market Its Asbestos-Containing Products

(a) Wartime Economic Controls Did Not Preclude, But Rather Encouraged, Voluntary Formation Of Defense Contracts Through Negotiation And Competitive Bidding

84. One of the first legislative responses to the developing national emergency in the early 1940s was the Act

of June 28, 1940, which provided that the President could authorize the Navy to negotiate contracts, rather than adhere to the usual formal advertising procedure, when he deemed it to be in the best interest of the Nation. The President was also authorized to provide that delivery under these naval contracts and purchase orders would "take priority over all deliveries for private account." This Act was intended to facilitate the placement of voluntary contracts and the delivery of material under these contracts. Neither the Navy nor any other federal agency had authority under this Act to compel a private entity to provide products to the United States, pursuant to sale or otherwise.

Exhibits:

Act of June 28, 1940, Pub. L. No. 671, Ch. 440, 54 Stat. 676 2 (1940);

H.R. Rep. No. 2257, 77th Cong. 3rd Sess. 2-3 (1940);

S. Rep. No. 1863, 76th Cong. 3rd Sess. 6-7 (1940);

National Defense Advisory Commission Memorandum, Price Stabilization Division, Legal Section, (December 9, 1940).

85. In the latter part of 1940, the President established a Priorities Board to implement the priorities system with regard to Army and Navy contracts. The Priorities Board authorized the Army and Navy Munitions Board, with the concurrence of the Priorities Board, to

"provide for the assignment of preference ratings to all Army and Navy prime contracts for materials contained in the list of critical items of the Army and Navy."

Exhibits:

Executive Order No. 8572, 5 Fed. Reg. 4122 (1940);

Uniform Procedures for Handling of Priorities, 32 C.F.R. § 919 (Supp. 1940);

Executive Order No. 8612, 5 Fed. Reg. 5143 (1940).

86. In September 1940, Congress enacted the Selective Training and Service Act of 1940 ("STASA"), Section 9 of which empowered the President, acting through the War Department or the Navy, to place an obligatory order and to require preferential performance of such an order. However, this STASA Section 9 procedure was in addition to existing methods of procurement and was in fact rarely used.

Exhibits:

Selective Training and Service Act of 1940, Ch. 720, § 9, 54 Stat. 885, 892 (1940);

J.L. O'Brian and M. Fleishmann, "The War Production Board Administrative Policies and Procedures," 13 Geo. Wash. L.R. 1, 4-10 (1944);

Miller, Pricing of Military Procurements, at 104-105 (1949).

87. On January 7, 1941, the President established the Office of Production Management to, inter alia, regulate the production and supply of critical defense materials and to coordinate government activities with regard to these

materials. The Office of Production Management was to determine when, to what extent, and in what manner priorities should be accorded under Section 2(a) of the Act of June 28, 1940.

Exhibit:

Executive Order No. 8629, 3 C.F.R. (1938-1943 Compl.).

88. Until May of 1941, the use of the priorities power under Section 2(a) was limited to prime contracts of the Army and Navy. Thus, until that time priority in delivery under subcontracts (and certain prime contracts) was assigned on a voluntary basis.

Exhibits:

J.L. O'Brian and M. Fleishman, "The War Production Board: Administrative Policies and Procedures," 13 Geo. Wash. L.R. 1, 8-9 (1944);

H.R. Rep. No. 460, 77th Cong., 1st Sess. 3-14 (1941).

89. In the spring of 1941, the Office of Production Management developed a "P" (Preference) series of orders. By virtue of a blanket rating for all purchases relating to a particular contract, a manufacturer covered by such an order could avoid the need for an individual priorities certificate for each item that he procured.

Exhibit:

O'Brian and Fleishmann, "The War Production Board Administrative Policies and Procedures," 13 Geo. Wash. L. Rev. 1, 29 (1944).

90. The operation of the priorities system functioned to the benefit of Manville and many other manufacturers because it enabled them to obtain preferential delivery of necessary components and materials. For example, on July 15, 1941, a Manville official accepted and executed copy 26 and 33 of Office of Production Management General Preference Order No. P-7 (Material and Equipment entering into Merchant Ship Construction) issued in connection with certain merchant ship construction. The orders provided a general preference rating of A-1-b and A-1-C respectively "in favor of the Shipbuilder...and in favor of each Rated Subcontractor" (emphasis added). By agreeing to honor the preference rating as applied to the shipbuilder's needs and to serve as a rated subcontractor, Manville ensured that it would make these sales and obtain the raw materials necessary to complete the sales.

Exhibits:

Office of Production Management, General Preference Order P-7, Copy 26, executed by Johns-Manville Sales Corp. (July 15, 1944);

Office of Production Management, General Preference Order P-7, Copy 33, executed by Johns-Manville Sales Corporation (July 15, 1941);

Letter from J.A. O'Brien, Johns-Manville Sales Corporation to J.W. Haslan, Babcock & Wilcox Co. (July 16, 1941).

91. The priority power of Section 2(a) of the Act of June 28, 1940, was amended by Act of May 31, 1941 to cover any contract or subcontract deemed necessary to the national defense and to immunize the rated contractor from liability for default on other contracts resulting directly or indirectly from compliance with the required priority. In so amending the priority system Congress noted that "[o]rders placed by the armed services are in most instances not compulsory but the manufacturer who accepts these orders knows that a preference rating will usually be assigned to such orders the moment he accepts them" (H.R. Rep. No. 460 at 6) (emphasis added). This congressional statement accurately reflects the fact that under the priorities system, initial arrangements regarding formation of a contract were entirely voluntary in most instances, but the making of a rated contract would invoke the rules requiring that precedence be given in performance, in accordance with the applicable rating.

Exhibits:

H.R. Rep. No. 460, 77th Cong., 1st Sess. 6 (1941);

Act of May 31, 1941, Pub. L. No. 77-89, 55 Stat. 236;

Memorandum submitted to the House Committee on Naval Affairs by Priorities Division, Office of Production Management, Hearing on H.R. 4534, House of Representatives Committee on Naval Affairs 1005 (1941).

92. The immunization from liability for default on other contracts was provided in recognition that the voluntary acceptance of rated contracts and orders created potential liability to other customers for delay or default in their orders. This protection "greatly stimulated the desire of business concerns to secure orders for the manufacture of war materials."

Exhibits:

H.R. Rep. No. 460, 77th Cong. 1st Sess. 6 (1941);

J.L. O'Brian and M. Fleishman, "The War Production Board Administration Policies and Procedures," 13 Geo. Wash. L. Rev. 1, 12 (1944).

93. Power to requisition materials was granted by the Act of October 10, 1940, Ch. 836, 54 Stat. 1090 (1940), the Act of October 16, 1941, Ch. 445, § 1, 55 Stat. 742, and the Second War Powers Act, 1942, Ch. 199, §§ 601, 602, 56 Stat. 176, 181 (1942). Manville makes no claim in this action that its asbestos-containing products were requisitioned by the government.

Exhibits:

Second War Powers Act, 1942, Ch. 199; 56 Stat. 176, 181 (1942);

Act of October 16, 1941, Ch. 445 § 1, 55 Stat. 742, 199 (1941);

Act of October 10, 1940, Ch. 836, 54 Stat. 1090 (1940).

94. Shortly after the declaration of war on December 8, 1941, the President abolished the Office of Production Management and established the War Production Board, also in the Office for Emergency Management of the Executive Office of the President. The War Production Board's focal point for handling matters affecting the manufacturers of asbestos-containing material was the Cork, Asbestos and Fibrous Glass Division.

Exhibits:

Executive Order No. 9024, 7 Fed. Reg. 329 (1942);

History of the Cork, Asbestos and Fibrous Glass Division, 1941-1945 (Oct. 1945).

95. Throughout the war, the composition of the Asbestos Section of the Cork, Asbestos and Fibrous Glass Division was dominated by employees of the asbestos industry. Arthur Byxbee, who was employed by an asbestos manufacturer (Raybestos-Manhattan), headed the asbestos unit in the Office of Production Management and continued as chief of the Asbestos Section of the Cork, Asbestos and Fibrous Glass Division. In December, 1941, J.A. Brown, Jr., also employed by an asbestos manufacturer (Keasbey and Mattison), was added to the Asbestos Section to handle

asbestos building materials. On January 1, 1942, Utley W. Smith of the Johns-Manville Corporation was added to the Asbestos Section to handle asbestos textiles. In April, 1942, Mr. J.E. Cole of Raybestos-Manhattan assumed responsibility for asbestos textiles. In August, 1942, George P. Stone, formerly General Sales Manager of Keasbey and Mattison Company, was hired as Chief of the Asbestos Section.

Exhibit:

History of the Cork, Asbestos and Fibrous Glass Division, 1941-1945 at 2, 3, and 5.

96. The Division performed its work with the "considerable assistance" of four Industry Adivisory Committees: the Asbestos Textile Industry Advisory Committee; the Specifications and Testing Industry Advisory Committee for African Asbestos Fibres; the Compressed Sheet Packing Industry Advisory Committee; and the Asbestos Friction Materials Industry Advisory Committee.

Exhibit:

History of the Cork, Asbestos and Fibrous Glass Division, 1941-1945 at 7 (October 1945).

97. The Office of Production Management issued Priorities Regulation No. 1, effective August 27, 1941. This regulation established a system for assignment of priority to defense contracts and subcontracts, and required

priority be followed in the acceptance and performance of such defense contracts. However, Priorities Regulation No. 1 provided that a "defense order" need not be accepted and performed in preference to other contracts if, inter alia, "the Person seeking to place the Defense Order is unwilling or unable to meet regularly established prices and terms of sale or payment...." By requiring that defense orders offer to pay the "going rate," the regulation avoided any question of a "taking" under the Fifth Amendment to the Constitution.

Exhibits:

Office of Production Management, Priorities Regulation No. 1, 6 Fed. Reg. 4489, 4490 (1941) (emphasis added);

J.L. O'Brian and M. Fleishmann, "The War Production Board Administrative Policies and Procedures," 13 Geo. Wash. L. Rev. 1, 33 (1944).

98. Priorities Regulation No. 1 provided that any person who considered that compliance with any priorities regulation or order "would work an exceptional and unreasonable hardship upon him" could "appeal to the division of Priorities...." 6 Fed. Reg. 4489, 4491 (1941). The WPB's appeals procedure was designed with "emphasis...on the rights of the individual who is complaining against a fortuitous discrimination against him--a discrimination not required by the exigencies of the war effort." In the two years following its creation in July, 1942, the Appeals Board considered approximately 42,500 appeals and granted

approximately 38,000 in whole or in part. Manville has not alleged that it ever submitted an appeal regarding a priorities regulation or order.

Exhibits:

Office of Production Management, Priorities Regulation No. 1, § 944.19, 6 Fed. Req. 4489, 4491 (1941);

J.L. O'Brian and M. Fleishmann, "The War Production Board Administrative Policies and Procedures," 13 Geo. Wash. L. Rev. 1, 43-44 (1944);

Manville Revised Pretrial Statement.

99. Priorities Regulation No. 1 also provided that "[a]ny Person who obtained delivery of any Material under an Order or specific direction of the Director of Priorities, or a delivery of Material bearing a preference rating, must use such Material, or an equivalent amount thereof, for the purpose specified in connection with the issuance of the Order, direction or rating" (emphasis added). Thus, the party receiving material under a priorities order was not required to use exactly that same material to fulfill the purpose specified in the order or rating, but could substitute other material of the same type.

Exhibit:

Priorities Regulation No. 1, § 944.11, 6 Fed. Reg. 4489, 4490 (1941).

100. Another aspect of the government's industrial mobilization effort was the development of the "M" series of orders, which covered particular materials. Throughout WWII importation of a broad variety of materials was regulated through Conservation Order M-63 (e.g., coconut oil, palm oil, hides, skins, hog bristles, and copper). In January, 1942, certain grades of asbestos originating in Africa were added to Order M-63 coverage. 7 Fed. Reg. 223 (1942). Shortly thereafter, certain grades of African asbestos were listed among materials whose importation was restricted to certain government corporations or agencies unless permission was obtained from the WPB's Direction of Industry Operations. 7 Fed. Reg. 2094 (March 17, 1942). During WWII there was no prohibition of the importation of any grade of Canadian asbestos.

Exhibits:

Conservation Order M-63, War Production Board;
6 Fed. Reg. 6796 (1941);
7 Fed. Reg. 223 (1942);
7 Fed. Reg. 2094 (1942);
7 Fed. Reg. 9878 (1942);
7 Fed. Reg. 10574 (1942);
8 Fed. Reg. 5581 (1943);
9 Fed. Reg. 13287 (1944);
10 Fed. Reg. 1367 (1945).

101. Conservation Order M-79, effective January 20, 1942, provided that unless otherwise authorized by the Director of Priorities, fabrication, spinning, or processing of asbestos fiber from South Africa was prohibited except where such processing was necessary to fill defense orders. Use of certain grades of Rhodesian chrysotile fiber and South African amosite fiber was limited to the manufacturing of certain products. The restrictions on use of African amosite and of Rhodesian chrysotile were revoked December 8, 1944.

Exhibits:

7 Fed. Reg. 436, 1630 (1942);

8 Fed. Reg. 13889 (1942);

9 Fed. Reg. 14428 (Dec. 9, 1944);

9 Fed. Reg. 1109, 14428 (1944);

10 Fed. Reg. 10179 (1945).

102. Similarly, Conservation Order M-123 limited the production of non-essential asbestos textiles. After April 4, 1942, unless specifically authorized by the Director of Industry Operations, no manufacturer of asbestos textiles was to deliver such textiles except for use in industrial packings or on orders bearing a preference of A-10 or higher. These limitations were replaced on December 14, 1942, by a prohibition of the manufacture of a list of

specified asbestos textile products, such as theater curtains and scenery.

Exhibits:

7 Fed. Reg. 2472 (1942);

7 Fed. Reg. 10444 (1942).

103. The asbestos industry vigorously supported many of these restrictions on non-essential uses of asbestos. For example, during a meeting of the Asbestos Textiles Industry Advisory Committee to the War Production Board on October 22, 1942, attended by five representatives of industry (including F.J. Wakem of Johns-Manville Corporation), the industry voiced approval for early implementation of prohibitions on production of certain asbestos textile products. The minutes of that meeting provide in part as follows:

> Members of the committee were of the opinion that eliminations [of production of non-essential uses of asbestos textiles] should be as drastic as can reasonably be imposed . . . . * * * Industry members could see no necessity for permitting the processing of additional quantities of material for restricted uses and suggested that the limitations be made effective immediately upon issuance of the order.

Exhibit:

Asbestos Textiles Industry Advisory Committee, WPB, Summary of Meeting of October 22, 1942 at 5-6.

104. In 1943, the WPB did place asbestos textiles under such an allocation procedure through Conservation Order M-283. However, the actual uses of asbestos textiles were not substantially changed as a result of this order:

> the end uses of asbestos textiles have changed very little since the allocation system has been in effect, cable, friction materials and packings and gaskets using the greater part - 79% - of the production.

Exhibits:

Conservation Order M-283, WPB, 8 Fed. Reg. 1790 (1943);

Minerals and Metals Advisory Committee, WPB, Meeting 50 (September 25, 1944) at 2.

105. None of the foregoing priorities or allocations regulations or orders precluded manufacturers from soliciting and entering into voluntary arrangements, consistent with the regulations, for the sale of asbestos-containing products.

Exhibits:

See, supra, ¶¶ 97, 101, 102, 104.

Witness:

Lincoln Gordon.

106. To the contrary, businesses could and did aggressively seek out defense-related orders. For example,

in June, 1942, Business Week presented a guide on how to secure war business, stating (at p. 28), inter alia:

> What it all adds up to is that there is salesmanship involved in selling to the government as well as selling to a private buyer. You've got to convince the procurement officers that you have the facilities and the skill to do the job they want and to do it fast. You've got to make yourself known to the men who buy whatever item it is you think you can make so that you will get consideration when contracts are up.

Exhibit:

Business Week, "A Guidebook to War Business" June 27, 1942.

Witness:

Charles O. Garcelon.

107. Even under the War Production Board's individual allocation orders limiting the uses of particular materials, "consumer-supplier relationships were disturbed very little, if at all." (O'Brian and Fleishmann). The WPB's controls were designed to ensure that industry got the machinery and equipment to meet essential needs, generally in a manner that "fell within the established patterns of industry." (Catton at 121). Because the wartime regulations were supportive of existing patterns of production, were administered by personnel drawn from the industries at issue, and were guided by industrial advisory committees, the heart of the war mobiliation program was

"willing cooperation by industry." (Id.) Moreover, despite some limitations on maximum prices, the government's pricing, taxation and procurement policies provided liberal incentives for producers of defense-related items. Suppliers were provided opportunities for large increases in volume, lower marginal costs and dramatically increased profits.

Exhibits:

J.L. O'Brian and M. Fleishmann, "The War Production Board Administrative Policies and Procedures," 13 Geo. Wash. L. Rev. 1, 36 (1944);

Bruce Catton, The War Lords of Washington -- The Inside Story of Big Business Versus the People in World War II at 121-122 (1948);

Emergency Price Control Act of 1942, 56 Stat. 29, § 201;

Office of Price Administration, General Maximum Price Regulation, 7 Fed. Reg. 3153 (1942);

Office of Price Adminstration, Supplementary Regulation No. 4 to General Price Regulation, 7 Fed. Reg. 3724 (1942);

Office of Price Adminstration, Procedural Regulation No. 6, Office of Price Administration 7 Fed. Reg. 5087 (1942);

War Production Board, Procurement Directive No. 2, 7 Fed. Reg. 8179 (Oct. 1942);

Office of Price Administration, Revised Supplementary Regulation No. 1, 8 Fed. Reg. ___ (1943);

J.P. Miller, Pricing of Military Procurements 47-221 (1949).

Witness:

Robert R. Nathan.

108. Central to the entire WWII program of economic mobilization was the desire to achieve the necessary defense strength with as little departure as possible from voluntary, free-market relationships:

> A basic objective of the whole program of economic mobilization was to effect mobilization with as little use of compulsory power as possible. This was particularly true in the field of pricing of military contracts, where every effort was made to conclude contracts on a voluntary basis.

(Emphasis added). While the existence of mandatory powers undoubtedly facilitated procurement from certain reluctant suppliers, "the record indicates a general reluctance on the part of the services to use these mandatory powers and a systematic policy to keep authority to do so in the higher echelons...." The services did not use the mandatory powers frequently because "[t]hey believed that a wide-spread or indiscriminate use of them was not the way to elicit the cooperation of industry which was necessary to insure maximum production. It is clear too that the services and WPB were particularly loath to invoke these powers where price was the primary obstacle."

Exhibit:

John Perry Miller, Pricing of Military Procurements at 102-108 (1949).

Witness:

H. Struve Hensel.

109. As stated by Chairman of the War Production Board in his report, "War Production-1944," the Board used its mandatory powers as sparingly as possible:

> While fighting for democracy abroad, we have not forgotten to preserve it at home. Vested with vast powers over the production and distribution processes of the American economy, the War Production Board has used these powers as sparingly as was consistent with the job of getting war goods produced. And when it was forced by war needs to use those powers, the Board turned to industry and labor advisory committees for advice on how our objectives could be achieved.... Because the broad industry-regulating orders may work unjustifiable hardship on some individuals, provision is made for individual appeals for partial or total exemption....

Likewise, the Navy's Procurement Directives provided that "[c]ompulsory orders and repricing orders, being extraordinary remedies, shall be resorted to only when efforts to reach a voluntary agreement on reasonable terms have been unavailing." (Emphasis added).

Exhibits:

WPB, "War Production in 1944," a Report by the Chairman, at 4 (1945);

WPB, Procurement Directive No. 2, 7 Fed. Reg. 1732 (1942);

WPB, Procurement Directive No. 2, 7 Fed. Reg. 8179 (1942);

WPB Procurement Directive No. 2, 7 Fed. Reg. 12968 (1943);

Navy Procurement Directive issued April 3, 1944, Navy Procurement Directives (October 1945).

110. Throughout the war, asbestos manufacturers voluntarily cooperated in making contracts for the delivery of their materials for the nation's shipbuilding program. As stated by Manville's President in a sales bulletin of January 6, 1942, it was Manville's policy to cooperate 100% with the priorities program.

Exhibit:

Bulletin from the Office of the President, Johns-Manville Corporation, January 6, 1942.

(b) Manville's Manner Of Doing Business And Aggressive Sales Policy Did Not Change As A Result Of The Wartime Regulations

111. In 1943, Manville President Lewis H. Brown testified before the House Committee on Naval Affairs Investigating the Progress of the War. In his testimony, Mr. Brown frankly admitted that Manville's wartime business was "very much the same" as its business had been before

World War II. Specifically, Mr. Brown was asked the following questions and gave the following answers:

> Mr. Wels. What is the peacetime character of the business of the Johns-Manville Co.?
>
> Mr. Brown. It is the manufacture of about 1,200 different products, asbestos materials, friction materials, and so on.
>
> Mr. Wels. Is the wartime character of the business the same as the peacetime character of the company's business?
>
> Mr. Brown. Very much the same; yes.
>
> Mr. Wels. You have had a substantial amount of wartime business. Has that been principally with the War Department or with the Navy Department or both?
>
> Mr. Brown. It has been with all the departments of the Government, generally.

Exhibit:

> Investigation of the Progress of the War Effort: Hearing Before the House Committee on Naval Affairs, 78th Cong., 1st Sess. 535, 536 (June 15, 1943). (statement of Lewis H. Brown, President, Johns-Manville Corporation, New York City).

112. The wartime business of Manville's distributors and installation units was also the same as its pre-war peacetime business. As the Price Adjustment Board found in 1946:

> The peacetime business of [H.W. Porter & Co., Inc. and Reid Hayden, Inc.] was identical-the installation of heat and cold insulation and the distribution of Manville products. There has been no change in the nature of the business during the war period. The companies'

government business consisted of subcontracts for the installation of insulation, principally on vessels.

Exhibit:

Memo from Price Adjustment Board to United States Maritime Commission (February 11, 1946).

113. Manville's goal during World War II was the same as its goal had been before World War II: to make as many sales as it possibly could and thereby make as much money as it possibly could. Manville's aggressive solicitation of business was the same before, during and after World War II.

Witnesses:

Roger Hackney;

Charles O. Garcelon.

114. In order to reach its World War II goal of making as many sales as it possibly could, Manville maintained a four-pronged sales and promotional program: First, Manville paid its salesmen on an incentive pay system and encouraged them to sell to every potential customer, particularly large customers such as the United States. Second, Manville vigorously marketed and advertised its products. Third, Manville carefully watched its competitors' products and prices so that it would not consistently be bested in competitive bidding. Finally, Manville bid on almost every request for tender it received

from the United States and pursued the "priorities" business essential to its World War II success.

See paragraphs 115-168, infra.

(i) Manville Provided Its Salesmen With Financial Incentives To Sell As Much As They Could

115. During World War II, Manville encouraged its salesmen to sell as much and as many Manville products as they could. In support of the general Manville sales policy, Manville had an incentive pay system for its salesmen.

See paragraphs 116-140, infra.

116. Charles O. Garcelon, a Manville salesman who began working for the company in 1921, sold Manville insulation products in the Boston area before, during and after World War II. Throughout that entire time, the Manville sales philosophy was to make as many sales as possible. With the exception of one instance where a post-war strike shut down Manville's plants, no Manville official ever told Charles Garcelon to limit his sales.

Witness:

Charles O. Garcelon.

117. During his entire sales career, including the war years, Charles O. Garcelon followed a philosophy in

conformity with Manville's desire to make as many sales as possible. Mr. Garcelon has articulated that philosophy as follows:

> We used to say wherever there was a smokestack there was a customer. * * * Anybody making smoke was a potential customer. They were heating something. They had insulation.

Mr. Garcelon's sales philosophy and Manville's sales philosophy did not change during World War II and did not change when Navy business was involved. As Mr. Garcelon said at his deposition:

> Q. So you continued to go out and find these smokestacks and sell to other customers [between 1940 and 1945]?
>
> A. Oh, yes. I never could have lived with what the navy brought. We buy big customers, General Electric and so further. Yes, my -- very little of my time was consumed or the company's time in the navy yard. As a matter of fact, I often wished it could have been more but as compared to industry in general, it was not a big customer.
>
> Q. And Johns-Manville would have preferred to have more business with the navy [between 1940 and 1945]?
>
> A. Oh, sure. With everybody we would like to have more. We liked the navy yard. We liked doing business with them. And we liked business.

Witness:

Charles O. Garcelon.

118. At his deposition, Charles O. Garcelon also testified that, except for higher volume of sales, the way in which he did business as a Manville salesman was the same throughout his entire career. Likewise, the way he made sales during World War II was the same as the way he made sales before World War II:

> Q. * * * I am interested in whether business that you did during World War II in Boston changed because of the war or whether business before World War II [was] basically the same as business during World War II and basically the same after World War II?
>
> A. Of course not. When they were building ships, they bought more. I mean that's actuality.
>
> Q. With the exception of buying more, did the way you did business remain the same?
>
> A. Absolutely. Never any different.
>
> * * *
>
> Q. * * * Did the way you made sales change during World War II from the time before?
>
> A. Not a bit.

Witness:

Charles O. Garcelon.

119. During his entire sales career with Manville, including during World War II, Charles O. Garcelon worked to

increase his sales by developing new customers and servicing existing customers. Mr. Garcelon has testified that during World War II he had hundreds of customers beside a few large companies, including non-defense-related customers such as pizza parlors:

Q. Okay. Now, during, World War II, you had customers besides [B]unker [O]il and E. B. Badger and the GE plant, didn't you.

A. Yes, I had everybody in that geographical territory. Everybody that was -- could be a customer was a customer.

Q. Would you say that you had hundreds of customers?

A. Yes. That's a fair statement.

Q. Including a lot of small companies?

A. Yes, that is right. Lots of small -- a lot of specialty companies that use our products in a special way, you know. I can't name them but that was it.

Q. But there were hundreds of customers that you sold insulation to during the World War II period?

A. Yes.

Q. And not all of them were big corporations?

A. No. May I use a little time in making -- in explaining a specific use so you will understand better what I am talking about, the brea[d]th of the thing? You have eaten pizzas perhaps?

Q. I have, yes.

A. People who make pizzas have to use a pizza oven because the oven -- they are made on an oven plate, not baked in a dish. The plate has to remain for some purposes -- the purpose -- perfectly flat so they use a transite name, trade name board to size for the shelf in that oven in which they pour the pizza mix that it is baked on. That's the kind of specialty use I mean. Hundreds of them.

Witness:

Charles O. Garcelon.

120. Charles O. Garcelon has also testified that Manville never discouraged him from making sales to the Boston Naval Yard.

Q. During World War II, did Johns-Manville ever discourage you from selling as much insulation as you could to the Boston Naval Yard?

A. Never.

Q. At any time during your career, did anyone at Johns-Manville discourage you from making as many sales of insulation to the Boston Naval Shipyard as you possibly could?

A. No.

Q. During World War II, did they ever discourage you from making sales of insulation as you could to other customers?

A. No.

MR. GARCIA: Who is they?

MR. AUSTIN: Johns-Manville.

Q. At any time during you career as a Johns-Manville salesman, did anyone at Johns-Manville ever discourage you from making sales to anyone?

A. No.

Witness:

Charles O. Garcelon.

121. In doing business with the Boston Naval Yard before World War II, Charles O. Garcelon would competitively bid to obtain a contract. The decision whether or not to bid was Manville's decision. As Mr. Garcelon testified at his deposition:

Q. * * * In the early 1930s, were you required to bid on [notice of request for bids] when you got them?

A. No, as I recall it, never. We were invited to bid. And we would be foolish if we did not. But if there was any reason we didn't, we had that right.

Q. And when you say you would be foolish not to, it was because you wanted the business?

A. Oh, sure. Also it would have been awful in not answering their invitation. That would be terrible.

Witness:

Charles O. Garcelon.

122. During World War II, Charles O. Garcelon continued to make sales to the Boston Naval Yard because Manville wanted to have the business. At his deposition Mr. Garcelon testified:

> Q. During the period 1940 to '45, how did you make those sales to the Boston Naval Shipyard?
>
> A. How?
>
> MR. GARCIA: Objection. Asked and answered.
>
> A. I actually didn't do any real selling. * * * I could only take the bid inquiry and bid on it. And my selling job was done up there, the selling I did to be sure that they didn't get too upset because our delivery was a little slow. * * *
>
> Q. When you say bid inquiry, that came to your office?
>
> A. Yes.
>
> Q. And you responded to it in writing?
>
> A. Yes. I had to. It was a form we had to make out. Their form. They sent their form. We filled it out and returned it by mail. * * *
>
> Q. And that was just a request for you to -- for Johns-Manville to bid if they desired to do so?
>
> A. That's right.
>
> Q. And like you said in the earlier time [period], you did that because you wanted business.
>
> A. Oh, of course.
>
> Q. It would have been bad business not to do that?

A. Indeed. * * *

Witness:

Charles O. Garcelon.

123. As a Manville salesman, Charles O. Garcelon had a sales "quota." Once he reached his quota, Mr. Garcelon would receive a commission on all additional sales. As Mr. Garcelon testified at his deposition:

> Q. * * * I want to ask a few questions about how you got paid during World War II. Were you a salaried salesman?
>
> A. Salaried and commission.
>
> * * *
>
> Q. Did Manville have a quota th[at] they wanted their salesmen to meet?
>
> A. Well, I was going to say that. Now you have asked it, yes.
>
> Q. And to meet your quota, did you need to make sales besides sales to the Boston Navy Shipyard?
>
> A. Oh, God, yes.
>
> Q. During World War II?
>
> A. Oh, yes. They wouldn't touch my quota.
>
> * * *
>
> Q. How did the commission system work during World War II, do you remember?
>
> A. No different than any other time. * * * We got -- call it a draw

account, call it a salary, think of it more of a draw account because we could have done a lot more than that if we were lucky and then we had, yes, a base volume. And up to that base volume, we got nothing extra for any sales at all. The base volume was plenty high. If we did an extra good job and got a little more of a base volume, we would get a little more. But basically, that was it.

* * *

Q. During World War II, were you able to meet your base rate?

MR. GARCIA: Base volume.

A. Pretty generally, yes. I did as I recall it. * * *

Q. Do you know if at any time during World War II you were able to exceed your base rate?

A. I would imagine so. I was a successful salesman. And I think I exceeded my base rate at the time.

Witness:

Charles O. Garcelon.

124. As Manville wrote in its 1940 Annual Report, Manville recognized that "[t]he success of a business is dependent upon having the employees down the line just as keenly interested in sales and profits as the stockholders." Therefore, between 1940 and 1945, Manville reported in its Annual Reports that it offered compensation incentives in order to increase the salesmens' interest in sales, production and profits. Pursuant to its sales incentive

program, Manville paid bonuses to 2,421 salesmen between 1940 and 1945 and paid bonuses to 475 district or unit sales managers. Specifically, between 1940 and 1945, Manville made the following bonus payments to salesmen and sales managers:

YEAR	SALESMEN RECEIVING INCENTIVE BONUSES	DISTRICT SALES MANAGERS RECEIVING INCENTIVE BONUSES
1940	357	71
1941	311	75
1942	474	85
1943	442	83
1944	434	80
1945	393	81.

As shown infra at paragraphs 197 to 283, Manville's sales incentive policy was clearly successful.

Exhibit:

1940 Annual Report To Stockholders, at 6 (March 10, 1940);

1941 Annual Report To Stockholders, at 6 (February 6, 1942);

1942 Annual Report To Stockholders, at 8 (February 4, 1943);

1943 Annual Report To Stockholders, at 6 (February 3, 1944);

1944 Annual Report To Stockholders, at 5 (January 31, 1945);

1945 Annual Report To Stockholders, at 5 (May 6, 1946).

Witness:

Roger Hackney.

125. Manville's aggressive sales approach also applied to its commercial relationship with the United States. Beginning in 1908, Manville created a Government Department to solicit business form the Army, Navy and other federal government agencies. Manville had salesmen assigned to the Government Department whose responsibility was to call on government agencies, sell Manville products, and help prepare government specifications.

Exhibit:

Letter from J.E. Meeks to D.C. Nutting, Naval Constructor, U.S.N. (June 20, 1907).

Witnesses:

Clyde Barnett;

Burton Tower.

126. In reporting to the Officers' Board, the Manville Government Department stated:

> It has also been our function to follow closely the engineering branches of each one of the Bureaus so that our type of material would be called for in contra-distinction to other types of material. An example of this kind of servicing was when we persuaded the U. S. Engineers to go to Asbestos Siding Shingles as an alternative to other forms of construction.

(Emphasis added). The Government Department declared that in the United States shipbuilding program Manville had "the immense potential" for future sales. In its report, the Government Department also stated that it was "cooperating with the Marine Department in following the proper specification agencies, both in the Maritime Commission and in the Bureau of Ships and also in the Naval Experiment Station at Annapolis in the interests of all of our materials that go into ship construction."

Exhibit:

Johns-Manville Government Service Unit, Officers' Board Meeting (June 22, 1942).

Witness:

Roger Hackney.

127. Clyde Barnett, who was the Chief Clerk of Manville's Government Department during World War II, also applied the aggressive Manville sales philosophy in dealing directly with central purchasing by departments of the federal government. Like Charles O. Garcelon, Mr. Barnett's goal during World War II in responding to requests for tender or invitations to bid was to have as may of his bids accepted as was possible. Mr. Barnett's approach was consistent with what Manville wanted its Government Department to do. As Roger Hackney testified:

Q. Do you know whether at the time you came to JM in 1941, whether JM had a government department or division?

A. They had one and I believe they had one when I first came to the company, I am not sure about the timing but the fact of having one I recollect.

Q. And what did you understand the function of that department to be?

A. Well, in a broad way it was to handle and encourage sales to the government.

Q. And were they to do as much as they could to generate business?

A. Yes.

Witnesses:

Clyde Barnett;

Roger Hackney.

128. Clyde Barnett was never told during World War II by anyone within Manville that he should not sell as much and as many products as he could.

Witness:

Clyde Barnett.

129. During World War II, when Manville did not want to respond to requests for tender or invitations to bid from the federal government, it simply did not submit a bid.

Witness:

Clyde Barnett.

130. In effect, the World War II bid procedure for making sales to the United States was the same as the pre-war and post-war bid procedure.

Witnesses:

Norman Adams;

Charles O. Garcelon;

Clyde Barnett.

131. Even at the height of World War II, the Navy's "Request for Tender" form explicitly provided:

> If you are interested in furnishing any of such articles or services, you may submit a tender EXECUTED IN DUPLICATE for opening on the date and at the time specified in the Schedule annexed.

Norman Adams, a Manville employee between 1937 and 1944 and Manville order clerk during 1938 and 1939, testified at his deposition that the 1943 Navy "Request For Tender" form language quoted above was identical to the language contained in the Navy's 1938 and 1939 "Request For Tender" form.

Exhibit:

United States Navy "Request For Tender" Form dated May 20, 1943.

Witness:

Norman Adams.

132. Manville's aggressive World War II sales approach was also mirrored by its Power Products and Industrial Insulation Departments. On October 25, 1943, these Departments issued "The Marine Industry" handbook, an internal document "for company use only." In "The Marine Industry", Manville indicates the degree to which it pursued contracts with the United States during World War II.

Exhibits:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943);

See paragraphs 133-140, infra.

133. As "The Marine Industry" makes clear, Manville desired all the shipyard business which it could get and was constrained in that desire only by its own inability to manufacture its products at a partial rate. As Manville stated in the introduction to "The Marine Industry": "Little did anyone realize then [1935], that in 1943 we would be selling eight million dollars worth of J-M materials for ships alone, and that we would be restricted to that figure solely by production limits."

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

134. Throughout "The Marine Industry", Manville made clear that it was eagerly attempting to expand its

sales to the United States. In discussing "Machinery and Engine Room Casing Insulation", Manville noted that the wartime shipyard market "is strictly a price market and, although we occasionally secure a substantial order, it is difficult to make much headway in this market and at the same time maintain a sound price policy through other substantial outlets." In discussing "Refrigerated Space Insulation", Manville noted that the market "[h]as developed into a very large and satisfactory business, almost entirely on an applied basis through sub-contractors * * * but, we frequently run into stiff competition from high density cork on account of its greater compressive strength."

Exhibit:

The Marine Industry. Johns-Manville Power Products and Industrial Department (1943).

135. In "The Marine Industry", after discussing "The Maritime Shipbuilding Market" and noting that the United States Maritime Commission had ordered 4,727 ships under its Victory Program, Manville expressed its interest in this shipbuilding program as a potential sales market: "what we are really interested in is what types of ships are these 4727, and what have we done toward supplying their requirements of materials that we manufacture."

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

136. In answering its own question of what it had done to assure that Manville products would be used by the Maritime Commission, Manville delineated "Accomplishments To Date" in selling its products to the Maritime Commission. Manville divided its Maritime Commission "accomplishments" according to the type of ship built. For Type C cargo ships, Manville noted that "[o]ur [marinite and marine sheathing] panels are being used exclusively on 86% of these ships" and that "52% of our panel business was secured through Hopeman [a company that installed products in shipyards during World War II]." For large tankers, Manville's success was almost as great as for Type C cargo ships: "We actually lost out completely on only 34 boats of this entire lot * * * [and] [w]e have credited ourselves with 80% of this business, of which 64% was through Hopeman." For six refrigerated cargo ships, Manville noted that it could have the entire business if Manville's factories could increase production.

> It is being handled by the United Fruit Company and Gulf and we have been offered the business. The outcome will be determined by whether or not we are successful in receiving an anticipated increase in production from our factories.

For ocean tugs, Manville noted that its success was due to establishing an installation contractor: "Our New York

District was largely instrumental in setting up a new joiner contractor - James McCutchson, the linen house - and they started in the Marine field by getting most of this tug business."

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

137. But "The Marine Industry" shows that Manville was not as successful in getting the United States Navy to buy its products. In building ships, the Navy used Manville's products primarily, if not exclusively, as boiler engine room materials. However, in the "enormous program for the construction of Floating Steel Drydocks," Manville was successful in selling its products for a variety of uses:

> Our New York District has succeeded in having our joiner panels, structural and engine room insulation specified; and we are securing the bulk of the business already let.

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

138. Based upon the foregoing information, Manville compared its Maritime Commission business to its Navy business in a chart entitled "BUSINESS OPPORTUNITIES" "MARITIME VS. NAVY". The chart showed Manville's desire to

exploit the opportunities to do business with the Navy and Maritime Commission and Manville's overwhelming success in marketing and selling its products to the Maritime Commission:

BUSINESS OPPORTUNITIES

MARITIME VS. NAVY

	MARITIME	NAVY
JOINER PANELS	YES	STEEL
SHELL & HULL INSULATION	YES	FIBERGLAS
MACHINERY SPACE INSULATION	YES	FIBERGLAS
ACOUSTICAL TREATMENT	YES	FIBERGLAS
REFRIGERATED SPACES	YES	FIBERGLAS
BOILER & ENGINE ROOM MATERIALS	YES	YES

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

139. In addition to discussing its Maritime Commission and Navy business in "The Marine Industry," Manville also discussed its business with the War Department. After explaining that the most important part of the War Department for Manville's purposes was the Army Transportation Corps, Manville stated that "[o]ur Government Department has seen to it that almost everything we sell is specified on their small boat new construction program, and our overall Army business has been quite substantial."

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

140. In "The Marine Industry" Manville also evaluated its competitors in the insulation market. Manville concluded its "Competition" section by noting the active price competition with some of its competitors: "[t]wo orders were lost to [Keasbey & Mattison] due to a 1 [cent] per square yard price differential, although on a third very large inquiry we secured the business on account of better delivery."

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

(ii) During World War II Manville Continued Its Promotion Program Through Advertisements and Sales Brochures

141. Long before World War II, Manville had adopted a sales strategy of heavily advertising its products. In "Insulation", a document written during World War II to provide the Manville Officers' Board with a "brief history of our insulation business," the "Sales Promotion" section said:

> The advertising of Johns-Manville Industrial Insulation is virtually as old as the Company itself.

* * *

> This long history of continuous advertising has had much to do with making Johns-Manville the best know name in the Industrial Insulation field.

Exhibit:

> "Insulation", Johns-Manville Officers' Board Meeting (December 21, 1942).

Witness:

> Roger Hackney.

142. The "Sales Promotion" section of "Insulation" provided sample advertisements used to market and sell Manville Industrial Insulation products. Among the advertisements featured was one targeting the steel and iron industries. According to "Insulation", Manville ran the advertisement in six trade magazines in October 1942 alone.

Exhibit:

> "Insulation", Officers' Board Meeting (December 21, 1942).

Witness:

> Roger Hackney.

143. In "Insulation", Manville identified each of its product groups and identified its competition as it existed in 1942. In the low temperature insulation market, Manville identified six companies as its principal competitors. In the low pressure temperature insulation

market, Manville identified seven companies as its principal competitors and forty other "alley winders". In the asbestos paper market, Manville identified eight companies as its principal competitors. In the asbestos millboard market, Manville identified seven companies as its competitors. In the medium temperature insulation market, Manville identified three companies as its competitors. Finally, in the high temperature insulation market, Manville also identified its competition.

Exhibit:

"Insulation", Officers' Board Meeting (December 21, 1942).

Witness:

Roger Hackney.

144. In "Insulation", Manville concluded its "brief history of the insulation business" by addressing its future goal: "We will secure our share of this business by leading the way with improved products, lower costs and better selling methods."

Exhibit:

"Insulation", Officers' Board Meeting (December 21, 1942)

Witness:

Roger Hackney.

145. In the Manville Annual Report for 1943, the Manville Sales Promotion Department explained Manville's mid-war marketing strategy:

Basic functions of the department were four-fold:

> To keep the Company name before the largest possible audience in a manner that would build good will and increased acceptance for our goods and services in the post-war period.
>
> To help maintain our contacts with our trade buyers and to strengthen our position in the many industries we serve.
>
> To keep the Sales Departments supplied with suitable descriptive literature on our products, especially of a service nature for use by military and other government buyers.
>
> To supply aggressive promotion support for those few products, which because of a decrease in war demand, again became available for sale through regular channels.

Specifically, as to products sold by the Power Products Department, the Sales Promotion Department noted:

> Power Products: Advertising in the trade and technical press was maintained on approximately the same basis as in 1942. In so far as possible, copy was of a service nature, designed to provide information on the use and maintenance of our products. As certain products became available for civilian requirements, Transite Pipe for example, plans were made immediately to resume aggressive promotion including direct mail, new literature and increased space advertising.

Exhibit:

Progress Report Sales Promotion Department for the Year 1943.

Witness:

Roger Hackney.

146. Manville's wartime advertising and marketing of a Marinite and Marine Sheathing provides another example of Manville's aggressive World War II sales promotion policy. Between 1940 and 1945, Manville "marketed" Marinite and Marine Sheathing through trade journal and sales brochures used by its salesmen. During 1940 and 1941, Manville repeatedly ran advertisements for Marinite and Marine Sheathing in the Pacific Marine Review and in other magazines. In addition to magazine advertisement, Manville also relied on sales brochures provided to its salesmen and potential customers. Between August 1940 and October 1945, Manville reissued, altered or added to its Marinite and Marine Sheathing sales brochures at least a dozen times.

Exhibits:

"Fireproof Materials for Better Ship Construction", Pacific Marine Review (March 1940);

"Marinite Bulkheads", Pacific Marine Review (May 1940);

"Maximum Safety-Quiet-Comfort on the S.S. America with J-M Marine Materials", Pacific Marine Review (September 1940);

"Here's why more than 100 ships now have fireproof MARINITE BULKHEADS", Pacific Marine Review (January 1941);

"Fireproof Materials for Better Ship Construction", Pacific Marine Review (March 1941);

Johns-Manville Sales Brochure IN-64 J-M Marine Joiner Materials (August 1940);

Johns-Manville Sales Brochure IN-64 J-M Marine Joiner Materials (December 1941);

Johns-Manville Sales Brochure IN-60 Marinite for Industrial Uses (January 1942);

Johns-Manville Sales Brochure IN-65 Methods Adaptable to Erection of J-M Marine Joiner Materials (December 1942);

Johns-Manville Sales Brochure IN-64 J-M Marine Joiner Materials (August 1942);

Johns-Manville Sales Brochure IN-64 J-M Marine Joiner Materials (December 1942);

Johns-Manville Sales Brochure IN-67 Structural Insulation Recommendations (January 1943);

Johns-Manville Sales Brochure IN-66 Marine Acoustical Materials and Structural Insulation (May 1943);

Johns-Manville Sales Brochure IN-61 J-M Marine Joiner Materials (October 1945);

Johns-Manville Sales Brochure IN-62 Methods Adaptable to Erection of J-M Marine Joiner Materials (October 1945);

Johns-Manville Sales Brochure IN-63 Marine Acoustical Materials and Structural Insulation (October 1945);

Johns-Manville Sales Brochure IN-64 Structural Insulation Recommendations (October 1945).

Witness:

Burton Tower.

147. In order to expand its business with the United States Maritime Commission, Manville during World War II would write to the Maritime Commission to have an insulation installation company placed on the Maritime Commission's list of potential sources of insulating material. For example, prior to December 18, 1941, Manville supplied the United States Maritime Commission with the name of one of its contract units, Taylor-Seidenbach, Inc., and indicated that Taylor-Seidenbach was "a source of insulating material in [its] territory."

Exhibit:

Letter from P. S. Grierson, Sr. to Taylor-Seidenbach, Inc. (December 18, 1941).

148. In "The Marine Industry", Manville clearly indicated that it not only desired to do business with the United States during World War II but that wanted to use its World War II experience as a basis for expanded post-war business. As it stated in its summary of its Maritime Commission "accomplishments":

> In studying the underlying facts behind these percentages it appears that we have done a pretty good job on the whole, and we should be in a fair position with long pull, after-the-war connections. Our prediction is that we will stay in the yards where we are working now and our competition will remain in theirs - but we must not lose any yards. (Emphasis Added.)

Exhibit:

The Marine Industry, Johns-Manville Power Products and Industrial Department (1943).

149. Another way in which Manville aggressively pushed its products during World War II was to send a sample of its product to the Navy or Maritime Commission with a request that they test the sample. For example, on December 19, 1941, the Chief of the Bureau of Ships wrote to the Commandant of the New York Naval Yard on behalf of Manville, which had earlier "requested a test of its J-M ASBESTOS MARINE tape for use as a lagging material on pipe insulation."

Exhibit:

Letter from The Chief of Bureau of Ships to the Commandant, Navy Yard, New York, N.Y. (December 19, 1941)

(iii) During World War II, Manville Carefully Identified Its Competitors And Their Prices In Order To Be Able To Price Its Products and Win Competitively Bid Contracts

150. During World War II, Manville frequently modified the price of its products according to the price competitors charged for their products. Manville did this in order to win business.

See paragraphs 169-196, infra.

(iv) Manville Vigorously Attempted To Obtain Both The Contracts Offered By The United States And The Priority Orders Necessary To Fulfill These Contracts

151. As shown above, during World War II, Manville salesmen almost always responded to United States Requests for Tender or Invitations to Bid. Although they were not required to do so, they responded with competitively priced bids in the desire of obtaining the contract.

See paragraphs 120-122, 127-131, supra.

152. In connection with the contracts which it obtained from the United States, Manville also pursued preference and priority ratings. As Manville said in its September 26, 1941 memo entitled "Order and Billing Procedures":

1. With more than half the country's resources being concentrated for war production, it is of major importance to obtain official preference ratings on our customers' orders and to handle them properly. When we have obtained the rating, we must then make sure that we pass on to the factories all the evidence that is needed to obtain the materials for manufacture and to establish the proper scheduling for production.

2. It is increasingly important that where ratings apply, we must obtain from our customer the official evidence. A statement-negotiating letter - to the effect that a certain rating could be obtained if necessary is of no value. Our Manufacturing Department cannot schedule an order which may receive an A-1 rating ahead of other orders which bear official ratings, even though these ratings are of lower rank. Further, a

> negotiating letter is of no help to us in obtaining materials with which to supply our customers' defense orders. In many cases, our sales departments have notified their district offices not to place such orders on the factories until the official ratings, whether in the form of certificate or purchase order endorsement, has been received.

Exhibit:

> Memo entitled "Order and Billing Procedure - Section M-30 - Handling Orders Under the Government Priority System" (September 26, 1941).

153. Within a month of the United States' entrance into World War II, Manville President Lewis H. Brown issued President's Bulletin No. 19-358 to "All Offices and Salesmen", in which he stated:

> It is going to be essential from now on for Industry and Business to justify their existence in terms of the war effort.
>
> It is the policy of Johns-Manville to cooperate one hundred percent with our Government's program on Priorities and Allocations. I have seen fit to address these remarks to our entire organization, since all of us, directly or indirectly, in our day to day work contribute to the operation of Johns-Manville under the Priorities and Allocations Program of the Office of Production Management.
>
> Our Sales Management will instruct the sales force on the specific steps to be taken in connection with securement of Priority business. We must bear in mind that Priorities are the tangible evidence of our contribution to the war effort which will justify our continued existence. From now on in a constantly increasing degree, goods cannot be

considered sold until the salesman has secured from, by or through his customers a priority rating that will enable Johns-Manville to manufacture the product.

Exhibit:

President's Bulletin No. 19-358 Priorities and Allocations (January 6, 1942).

Witness:

Roger Hackney.

154. One week later, L.M. Cassidy issued Sales Bulletin 65-154 to "ALL SALESMEN BUILDING MATERIALS & GENERAL DEPT." In the Sales Bulletin, Mr. Cassidy wrote:

To sum up, we need all the priority certificates that it is possible for you to get. We are certain that in many instances in the past, in our desire to get an order, we have not been insistent on getting a priority rating along with the order. A promise of a priority certificate at a later date won't help. It should accompany the order at the time that it is placed.

To help our country's war program, to keep our factories adequately supplied, to enable us to give you finished goods to sell, start today to secure priority certificates on every order possible.

Exhibit:

Johns-Manville Sales Bulletin 65-154 Priority and Allocation (January 13, 1942).

155. Manville's desire for priority ratings was communicated to its asbestos insulation installers and to

all Power Products & General Salesmen. In his January 29, 1942 Sales Bulletin, H.A. Kieselbach wrote:

> Your Technical Services Units should be notified immediately that they must obtain preference ratings for these products from their customers if shipment is to be made from our factories or if shipment is to be made from their own stocks and replacement material is to be ordered from our Company. When replenishing stock, the T.S.U. is permitted to accumulate preference ratings from his customers until he can place a purchase order on us for his minimum economical ordering quantity provided these ratings are not extended later than 3 months after the T.S.U. received same. We have been advised this practice can be used generally in connection with the extension of ratings on the above products. When the customer's order is not filled from stock by the T.S.U. but is placed on us direct, the T.S.U. should extend to Johns-Manville the preference rating which applies.

Exhibit:

> Johns-Manville Sales Bulletin 61.3-347 "Priorities-Insulation Materials" (January 29, 1942).

156. As a result of these bulletins, Manville salesmen began actively seeking preference or priority ratings. As Norman Adams testified at his deposition, one of his responsibilities as a Manville salesman was to obtain preference orders and information from customers so that he could, on behalf of the customer and Manville, prepare a statement justifying higher ratings.

Witness:

Norman J. Adams

157. As a Manville salesman during World War II Norman Adams did not receive credit toward meeting his company imposed quota when a sale was made. Rather, he received such credit when Manville delivered the ordered product. Therefore, commission salesmen, like Norman Adams had a vested interest in having customers' preference or priorities ratings increased.

Witness:

Norman J. Adams

158. Therefore, during World War II, Manville actively sought contracts with the United States and actively sought priority-rated orders. Manville salesmen lobbied for increased priority ratings whenever possible.

See paragraphs 151-157, supra.

(v) World War II Provided Manville Substantial Opportunities To Expand Its Markets

159. In 1943 and 1944, Manville compiled "Progress Reports" of the Manville Corporation for the preceding years; i.e., 1942 and 1943. These Progress Reports are replete with evidence that Manville pursued business with the United States and that it competed with other asbestos

product manufacturers for that business. Moreover, the 1943 and 1944 Progress Report show how Manville used World War II to expand its sales into new markets.

See paragraphs 160-167, infra.

160. In its 1942 Progress Report, Manville declared that "[a]s a result of war-time construction, many new opportunities were presented for the use of our commodities either in standard or special form." During 1942, "[f]ederal Government sales for 1942 amounted directly and indirectly to nearly half of our whole sales."

Exhibit:

Progress Report Johns-Manville Corporation for the Year 1942.

Witness:

Roger Hackney.

161. Many Manville departments reported new opportunities to sell Manville products. For example, in its section of the 1942 Progress Report, the Power Products & Industrial Departments reported as follows:

> The chemical, synthetic rubber, aviation and marine industries, along with new methods of producing high octane gas, etc. have opened up new fields for many of our commodities either in standard or new form. Many of these are certain to continue after the war emergency.

Exhibit:

Progress Report Power Products & Industrial Department for the Year 1942.

Witness:

Roger Hackney.

162. In its section of the 1942 Progress Report, the Building Materials & General Department also identified new marketing opportunities:

> War construction developed many new fields of opportunity for our building materials line. Fortunately our standard lines with little or no change could be adopted in these new fields.

Exhibit:

Progress Report Building Materials & General Department for the Year 1942.

Witness:

Roger Hackney.

163. Likewise, in its section of the 1942 Progress Report, the Government Department noted that during the preceding year "[m]any new opportunities were presented for the use of our standard materials and various types of war-time construction."

Exhibit:

Progress Report Government Department for the Year 1942.

Witness:

Roger Hackney.

164. In its 1943 Progress Report, Manville again identified new fields in which to sell its products: "War construction continued to account for the majority of new outlets for both standard and special products."

Exhibit:

Progress Report Johns-Manville Corporation for the Year 1943.

Witness:

Roger Hackney.

165. The Power Products and Industrial Department again identified new markets for Manville's products in the 1943 Annual Report. The Department claimed to have "[c]ontinued to exploit the Chemical, Synthetic Rubber, Aviation and Marine Industries for new cases and new requirements." As an example, the Department noted:

> The outstanding new material in the Marine line for 1943 was Marine Tape made from Asbestos Paper reinforced with an open mesh cloth. It must be emphasized however, that the large sales of this product $621,151, were due almost entirely to the shortage of asbestos and glass cloths during 1943, for which it was accepted as a substitute by Navy. Now that glass cloth is available (and on the Navy and Maritime Commission approved list) the former has directed that marine tape is

no longer acceptable excepting only on certain equipment if labor saving can be obtained by use of the tape making speedier release of the fighting ship. Aside from existing orders we will have to develop new fields for this product.

Exhibit:

Progress Report Power Products & Industrial Department for the Year 1943.

Witness:

Roger Hackney.

166. In 1944 the Building Materials and General Department reported in its section of the 1943 Annual Report that, "[d]espite restrictions on normal construction, we continued in 1943 to find new opportunities for our building materials line."

Exhibit:

Progress Report Building Materials & General Department for the Year 1943.

Witness:

Roger Hackney.

167. The Manville Government Department noted in its section of the 1943 Annual Report that "[m]any new opportunities were presented for the use of our standard materials in wartime construction." As an example of a new opportunity, the Government Department wrote: "Hardboard is being used for joiner work on non-combatant ships."

Exhibit:

Progress Report Government Department for the Year 1943.

Witness:

Roger Hackney.

168. During World War II, Manville was aggressively selling all of its products. The products which it sold to the Navy and to the Maritime Commission were no different than the products Manville sold to other customers. As Charles O. Garcelon, a Manville salesmen during World War II said at his deposition, "A sale is a sale. A dollar is a dollar." During World War II, Manville wanted as many sales from as many sources as it could obtain. The United States was just one customers among many that Manville solicited in order to make "a dollar".

Witness:

Charles O. Garcelon.

Exhibits:

See paragraphs 117-1203. supra.

(3) Manville's Wartime Prices Were Not Based On Any Navy Policy Of Self-Insurance Or Assumption Of Risk

(a) Manville's Wartime Prices Depended Largely On The Prices Of Manville's Competitors And The Size Of The Customer

169. During World War II, prices for Manville products were established centrally at Manville headquarters. The price for the same product could vary from region to region and from one class of customer to another class of customer, but did not vary among individual customers within a class. The price for each sales region and class of customer was set out in a price book, which was referred to as "the Bible" by some Manville salesmen. The prices were adjusted periodically by Manville headquarters personnel as market conditions (principally the prices of Manville's competitors) dictated. As the Government Department noted in its 1942, 1944 and 1945 reports, "[p]rices used in seeking Government business are set up by the commodity managers."

Exhibits:

Progress Report Government Department For The Year 1942 at 3;

Progress Report Government Department For The Year 1944 at 173;

Progress Report Government Department For The Year 1945 at 154.

Witnesses:

Norman Adams;

Roger Hackney;

Clyde Barnett;

Charles Garcelon.

170. In setting its prices, Manville was heavily influenced by the prices charged by its competitors. As stated by Clyde Barnett at his December 9, 1986 deposition:

> Q Do you know what caused those price increases?
>
> A Competition.
>
> Q Competition caused the prices to go up?
>
> A Many times.
>
> Q Would you --
>
> A If your competitor was increasing his price, you would increase your price. If your competitor would lower their price, you would lower your price.
>
> That had been a practice.
>
> Q While you were employed in the office service unit, it was Johns-Manville's practice to change its prices when its competitors did?
>
> A Yes.

Witness:

Clyde Barnett.

171. The reason Manville watched the prices charged by its competitors during World War II was that it was bidding against them, and would frequently lose contracts if it was underbid: As stated by Clyde Barnett:

Q * * * were there occasions that you can recall during the war where Manville had a product, submitted a bid, but did not receive an award for that contract because a competitor received the award.

A Many times.

Q Was there ever a time that, again, during the war, that ;you felt that this was due to the fact that you were being underbid on price?

* * *

A Yes.

Q Do you recall occasions where you lost out on price and you didn't receive bids because your price was high?

A Oh, yes. Yes.

* * *

Q Did that ever occur with 85 percent Mag[nesia]?

A Many times.

Witness:

Clyde Barnett.

172. Charles O. Garcelon, Manville's exclusive salesman to the Boston Naval Yard during World War II, has testified that Manville competed on prices with other asbestos product manufacturers and Manville's price could be changed depending on the prices quoted by its competition:

Q Did the product that you sold at that lower price vary at all from the --

A Nothing. We only had one product by name. Only one.

Q And so when the price varied, that didn't mean that the product varied?

A No way.

Q In bidding against your competitors for contracts at the Boston Naval Shipyard, did you get to know what their general prices were?

A Oh, sure. Their prices were for anybody to see. All the prices were open. Open bidding. When I went there to see how we did, I saw their prices as well as ours.

Q And did you try to bid so that you could beat their prices?

A No.

Q So that the fact that you knew what their prices were probably going to be didn't [a]ffect what you bid on the --

A Sure, it would [a]ffect our general business. If we found that we -- our prices were running high in the business, of course, we adjusted them.

Q And you adjusted them so that you could get the business at the naval shipyard?

A We adjusted them so that we could be competitive.

Witness:

Charles O. Garcelon.

173. In establishing its prices, Manville also considered the size of the customer. As Charles O. Garcelon said at his deposition:

> Q So that the price might vary depending on who you were selling the product to?
>
> A They would vary only within the range of scheduled prices. We would not establish a particular price for this particular John Smith. We had prices -- we had high prices. We had low prices. The big buyers, of course, got lower prices because they would get lower prices competitively and we had to remain competitive.

During World War II, Manville had many large customers. For example, in July 1944, Asbestos Magazine reported that nearly $1,000,000 of Manville products were being used in the construction of an oil refinery in California.

Exhibit:

Asbestos Magazine (July 1944);

Witness:

Charles O. Garcelon.

174. It was and is common commercial practice to grant lower prices to large customers.

Exhibits:

Robert F. Lanzillotti, "Pricing Objectives in Large Companies", American Economic Review, 48, 1958 at 931;

Memorandum from Mark Rosenfelt, Mr. George Kogel on prices of 85% magnesia asbestos pipe covering products (April 6, 1942);

Union Asbestos and Rubber company, Financial statements and supporting documentation for the year ended December 31, 1943, submitted to the War Production Board, at 7 (1944).

Witness:

Robert R. Nathan.

(b) Manville's Wartime Prices Were Also Based On Manville's Evaluation Of "Any Hazard Involved In The Sale Of The Product Due To Factors...Not Fully Known"

175. In establishing its prices during World War II, Manville also considered the potential hazard or liability involved in selling the product. On January 30, 1942, Lewis H. Brown issued President's Bulletin No., 19-362 on the "Procedure For Adopting New Processes And New Or Revised Products". In the Bulletin, Mr. Brown stated:

> The Sales Division representative * * * takes the responsibility for estimating the profit potential involved in the sale of the new or revised product and in deciding that this profit potential is satisfactory and sufficient to counter-balance any hazard involved in the sale of the product due to factors which are not fully known at the time the decision must be made (emphasis added).

Exhibit:

Johns-Manville President's Bulletin No. 19-362 Procedures For Adopting New Processes And New Or revised Products (January 30, 1942).

Witness:

Roger Hackney.

176. A President's Bulletin was the most forceful and direct way in which Lewis H. Brown communicated with Manville employees and a President's Bulletin was always considered as containing important information which should be followed.

Witness:

Roger Hackney.

177. Before and after President's Bulletin No. 19-362, Manville created and maintained reserves from its wartime profits to pay for contingencies based on the hazards or liabilities involved in marketing and selling its products. Manville did not reduce its contributions to these reserves based on the Navy's alleged agreement to indemnify it against such risks.

Exhibits:

See, paragraphs 213-225. infra.

Witnesses:

Roger Hackney;

Robert R. Nathan.

178. There is no evidence that Manville ever reduced the price of its products during World War II based upon reducing its insurance coverage or on any Navy policy of self-insurance. In fact, the evidence indicates that Manville maintained or raised the price of its products throughout World War II.

(c) Manville's Prices During World War II Were Equal To Or Greater Than Its Pre-War Prices For Almost Every Product

179. On June 15, 1943, Manville President Lewis H. Brown testified before the House Committee on Naval Affairs that the prices Manville charged for its products at the height of World War II "were based upon the prices we charged in peacetime." As an example, Mr. Brown identified products which Manville sold to the shipbuilding industry:

> We have items that we continue to sell for shipbuilding and other purposes in industry in peacetime and then it took virtually the same products and we sold them in wartime, and the volume doubled or more than doubled, and there wasn't any change in price from peacetime to wartime, and just the change in volume made a difference in more profits before taxes.

Exhibit:

Investigation of the Progress of the War Effort: Hearing Before the House Committee on Naval Affairs, 78th Cong., 1st Sess. 535, 550, 552 (June 15, 1943) (statement of Lewis H. Brown, President, Johns-Manville Corporation, New York City).

Witness:

Roger Hackney.

180. In 1942 and 1943, a government investigation of the prices Manville and five other manufacturers charged for 85% Magnesia products and for Superex products determined that Manville had not lowered the minimum price of its 85% Magnesia and Superex products between 1937 and 1942.

Exhibits:

Memorandum to Helen L. Van Tuyl from Neil Staebler (September 23, 1942);

Memorandum from Helen L. Van Tuyl to files (November 21, 1942);

Memorandum from Helen L. Van Tuyl to Julian Litlan (June 18, 1943).

Witness:

Roger Hackney.

181. Manville's internal World War II reports also confirm the statement Mr. Brown made before the House Committee on Naval Affairs. In its 1942 Progress Report, Manville wrote that "[p]rices have generally held firm."

Exhibit:

Progress Report Johns-Manville Corporation For The Year 1942.

182. Lewis Brown's 1943 statement that Manville's wartime prices were no lower than its peacetime prices is also confirmed by the Chief Clerk of Manville's Government Department during World War II, Clyde Barnett, who testified at his deposition as follows:

Q During the war years, did you continue to get these sheets with price changes?

A Yes.

Q Okay. Did they come with any more or less regularity than when you were at the office service unit?

A I would say about the same.

Q All right. Do you recall that there were any price increases during the war years?

A Of course, you know, we're again getting back to 1900 products. I remember some going up, yes.

Q Do you recall any price decreases during the war?

A No.

Witness:

Clyde Barnett.

183. The price of asbestos textiles and asbestos containing millboard rose in 1940 and 1941.

Exhibits:

Asbestos Magazine at 22 (November 1940);

Asbestos Magazine at 22 (June 1941).

(d) Manville Charged The United States Higher Prices Than It Charged Certain Other Customers

184. During World War II the minimum price at which the United States could purchase several Manville products used in shipyards was fixed above the minimum price at which other users could purchase these products.

See paragraphs 185-196, infra.

185. In 1930, a process for making 85% magnesia products was patented. The patent became known as the "Greider" or "Stover" patent. On November 5, 1931, C.J. Stover granted Manville a non-exclusive license to make, use and sell certain magnesia insulating materials, including 85% magnesia pipe covering, block and cement which were protected by the "Greider" patent.

Exhibit:

Prospectus 100,000 Johns-Manville Corporation Common Stock (February 15, 1937).

186. Four other asbestos product companies also licensed the "Greider" patent: Ehret Magnesia Manufacturing

Company, The Philip Carey Company, Paraffine Companies, Inc., and Feasbey & Mattison Company.

Exhibit:

Helen L. Van Tuyl Memo (January 9, 1942).

187. The price at which the 85% magnesia products covered by the "Greider" patent could be sold was established by C. J. Stover in 1931 and applied to all five companies that manufactured 85% magnesia products under the "Greider" patent. Between 1931 and 1942, the price set by C. J. Stover was not lowered. In fact, in 1937, C. J. Stover raised the price of the 85% Magnesia products covered by the "Greider" patent. In 1942, Mr. Stover did not anticipate any price change "except as a last resort to keep the companies in business."

Exhibits:

Helen L. Van Tuyl Memo (January 9, 1942);

Helen L. Van Tuyl Memo (September 23, 1942).

188. In 1941, the United States began investigating the possible anti trust violations involved in the price fixing scheme used by C. J. Stover and the five licensed companies. Among others the matter was brought to the attention of the Department of Justice by Captain Henry de F. Mol, officer in charge of the Navy Purchasing Office

in New York City and by other persons. Canadian officials were also investigating asbestos product price fixing.

Exhibit:

> Letter from Thurman Arnold, Assistant Attorney General, to Leon Henderson, Administrator of the Office of Price Administration (August 20, 1942);
>
> Memorandum to files from Helen L. Van Tuyl (November 19, 1941).

189. The Department of Justice investigation found that "[t]here is reason to believe that this price-fixing arrangement has not only resulted in grossly excessive prices for these products, but that the Government has been compelled to pay higher prices than some other purchasers" and that there appeared to be "arbitrary discrimination against the Government." (Emphasis added).

Exhibit:

> Letter from Thurman Arnold, Assistant Attorney General, to Leon Henderson, Administrator of the Office of Price Administration (August 20, 1942); Helen L. Van Tuyl memo (September 24, 1942).

190. The extent of the price fixing and government over-charges was documented for 85% Magnesia pipe covering, block, lagging and cement and for Hi-Temp/Superex pipe covering, block, lagging and cement. All six companies which manufactured and sold these products (Johns-Manville Sales Corporation, Keasbey and Mattison Company, Philip Carey Manufacturing Company, Ehret Magnesia Manufacturing

Company, Plant Rubber and Asbestos Company and Rubberoid Company) often charged identical prices for the same classes of consumers. The minimum prices for sales to the United States were in many instances above the minimum prices to two other classes of purchasers, and charged the "Rehandlers and Independent Insulation Contractors" and "Approved Contractors and Distributors".

For example, for car loads of 85% Magnesia pipe covering, block and lagging, Manville could sell to approved contractors and distributors 40% of the list price but had to charge permanent departments of the United States government at least 46% of the list price. For less than car loads of 85% Magnesia cement, Manville could charge approved contractors and distributors 42% of the list price and could charge rehandlers and independent contractors 48% of the list price but had to charge permanent departments of the United States government at least 50% of the list price. For car loads of Superex cement, Manville could sell to approved contractors and distributors $4.85 and to rehandlers and independent insulation contractors $5.35 but had to charge the United States at least $5.40. For less than car loads of Superex cement, Manville could charge approved contractors and distributors $5.00 and could charge rehandlers and independent insulation contractors $5.50 but had to charge permanent departments of the United States government at least $5.55. Stated differently, the minimum

price Manville could charge the United States for 85% Magnesia and Superex products was at least 11% to 16% greater than the minimum price Manville could charge approved contractors and distributors.

Exhibits:

Helen L. Van Tuyl Memo (September 23, 1942);

Helen L. Van Tuyl Memo (November 2, 1942).

Witness:

Sidney Wolf.

191. The Department of Justice determined that C. J. Stover's "licensing scheme [w]as a violation of the federal antitrust laws." Following meetings with C. J. Stover, which Mr. Stover "agreed to relinquish all control over prices and selling policies of the licensee companies * * *."

Exhibit:

Letter from Thurman Arnold, Assistant Attorney General, to Leon Henderson, Administrator of the Office of Price Administration (August 20, 1942); Helen L. Van Tuyl Memo (November 2, 1942).

192. Based upon an investigation by the Office of Price Administration, Leon Henderson concluded "that reclassifying the Government to the most favored class of purchaser [under the licensing agreement] would result in a

saving of approximately one and one-half million dollars a year."

Exhibits:

Letter from Thurman Arnold, Assistant Attorney General, to Leon Henderson, Administrator of the Office of Price Administration (September 21, 1942).

Letter from Leon Henderson, Administrator of the Office of Price Administration to Thurman Arnold, Assistant Attorney General (September 29, 1942).

193. However, while the official price fixing scheme was disbanded, its practical effects continued. As Helen L. Van Tuyl noted in her September 24, 1942 memorandum, "although the Stover agreement is no longer legally effective, the discount schedules and the classification of buyers set up under the Stover system are currently operative on medium-pressure insulation materials (known as "85% Magnesia") and on the high-pressure insulation materials known as "Hi-Temp" or "Superex".

Exhibits:

Helen L. Van Tuyl Memo (September 24, 1942).

Letter from leon Henderson, Administrator of the Office of Price Administration, to Thurman Arnold, Assistant Attorney General, (August 31, 1942).

194. On June 28, 1943, Helen L. Van Tuyl wrote to Julian Littan about the fact that, not withstanding the agreement to stop fixing prices, prices remained uniform and the United States continued to pay a higher price.

Exhibit:

Interoffice Communication to Julian Littan from Helen L. Van Tuyl (June 18, 1943).

195. Therefore, Manville charged the United States a higher minimum price for Magnesia and Superex products at least until June 18, 1943. Only four instances of deviation from the fixed price were known and they were due to "a particular competitive situation".

Exhibits:

See, paragraph 188-194, supra.

Memorandum to George Kogel from Mark Rosenfelt (April 16, 1942).

196. Manville also engaged in price fixing schemes for other products that it manufactured. Pursuant to the 1935 "Tulloch" patent licensing system, Manville engaged in price fixing for low-pressure insulation products such as 1) aircell pipe covering, sheets and blocks; 2) wool felt pipe covering; 3) sponge felt pipe covering, sheets and blocks; 4) fine cellular pipe covering, sheets and blocks; 5) asbestos indented laminated pipe covering, sheets and blocks; 6) anti-sweat pipe covering; 7) frost-proof pipe covering; 8) asbestos paper; 9) asbestos roll board; 10) corrugated asbestos paper; and 11) combination high temperature and sponge felt pipe covering.

Exhibits:

Helen L. Van Tuyl Memo (September 24, 1942);

List of Licensed Materials Forming Part of License Under United States Letter Patent No. 1,972,500 Between Donald Tulloch, Jr. and Johns-Manville Corporation. (September 1, 1935).

(4) Manville Made Record Profits During World War II, Which Enabled It To Create Massive Reserves For "War Contingencies" And Post-War Expansion

(a) Manville Made Record Sales And Profits During World War II

197. Although it was the acknowledged leader of the asbestos industry, Manville experienced financial difficulties throughout most of the 1930s. After setting records for sales ($61 million) and earnings ($7 million) in 1929, Manville would not reach these levels again until the defense build-up began in 1940. In fact, during the 1930s Manville suffered an deficit of almost $3 million in one year (1932), was unable to pay dividends on its common stock in three years, and experienced shrinking total assets during five of the ten years.

Exhibits:

Progress Report Johns-Manville Corporation For The Year 1943;

Moody's Manual of Investments - American and Foreign - Industrial Securities (1930);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1931);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1932);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1933);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1934);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1935);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

198. Between 1929 and 1938, Manville's net sales and operating income figures were as follows:

YEAR	NET SALES	OPERATING INCOME
1929	61,994,885	7,365,782
1930	49,492,048	3,702,639
1931	33,481,800	936,764
1932	20,409,206	(2,829,062)*
1933	21,232,272	303,845
1934	27,300,248	1,682,982
1935	34,646,853	3,305,324
1936	48,922,011	6,187,084
1937	60,173,392	7,066,078
1938	46,890,148	2,904,373.

*deficit.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1930);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1931);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1932);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1933);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1934);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1935);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

199. Immediately prior to World War II, Manville continued to struggle. At the Manville Board of Directors meeting on May 16, 1938, Lewis H. Brown told the Board that Manville was having business problems:

> Mr. Brown discussed the figures contained in these statements and in the report on securements, pointing out that the trend was in the direction of smaller sales and profits with no evidence of the seasonal pick-up normally to be expected.
>
> * * *
>
> The meeting was advised that the unsatisfactory showing of the Corporation during 1938, together with the discouraging outlook for the Summer months, had caused the officers to formulate a definite program of expense reduction and the meeting was presented with an outline of the steps which it was proposed should be taken and with an estimate as to the savings to be effected thereby during the remainder of the year.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (May 16, 1938);

Minutes of the Johns-Manville Board of Directors Meeting (January 31, 1938).

Witness:

Roger Hackney

200. Manville's financial problems ended abruptly with the beginning of the mobilization for World War II. Due to its aggressive pursuit of wartime business (both private and governmental) and its efforts to create products to meet new demands, Manville's profits soared and it "succeeded" beyond all prior performance levels.

See, paragraphs 111-196, supra, 201-212, infra.

201. In 1940, Manville had total sales of $61,761,236 and came within $250,000 of surpassing its corporate record for total sales, set in 1929. In 1941, Manville increased its total sales by more than 33% and established a new record for total sales, $92,852,483. In 1942, Manville surpassed for the first time the $100,000,000 sales mark. Manville's total sales remained above the $100,000,000 mark for 1943 and 1944. In sum, each year between 1941 and 1945, Manville's total sales exceeded its pre-war total sales record.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1928);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1929);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1930);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1931);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1932);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1933);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1934);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1935);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

202. Between 1940 and 1945, Manville's total sales for each year were:

YEAR	TOTAL SALES
1940	61,761,236
1941	92,852,483
1942	108,021,383
1943	107,418,305
1944	101,211,499
1945	85,993,676.

Thus, during World War II, Manville's total sales averaged more than $92,000,000 per year, which was more than double its average total sales during the six years immediately preceding WWII (i.e., $45,296,805).

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

203. Manville's high sales volume during World War II resulted in record profits. Prior to 1940, Manville's highest annual operating profits were made in 1929 and amounted to $7,365,782. In 1940, Manville established a new record for operating profits with $8,838,676. This record was eclipsed in 1941 when Manville's operating profits more than doubled, reaching $19,063,527. Manville's 1942 operating profits in turn surpassed by more than four and one-half million dollars the 1941 record. Manville's 1943, 1944 and 1945 operating profits also surpassed its 1939 operating profits. Thus, in each year between 1940 and 1944 Manville's operating profits were greater than in any year preceding World War II.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1928);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1929);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1930);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1931);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1932);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1933);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1934);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1935);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

204. Between 1936 and 1947, Manville's operating profits were as follows:

DATE	OPERATING PROFITS	OTHER INCOME	TOTAL INCOME
1936	6,187,084	584,047	6,771,131
1937	7,066,078	811,094	7,877,172
1938	2,905,373	325,543	3,230,916
1939	6,256,503	404,286	6,660,789
1940	8,838,676	1,024,364	9,863,040
1941	19,063,527	288,337	19,351,864
1942	23,802,849	256,350	24,059,199
1943	17,264,860	181,239	17,446,099
1944	13,535,056	381,240	13,916,296
1945	6,946,586	304,774	7,251,079
1946	5,644,586	471,572	6,116,158
1947	15,079,892	347,904	15,427,796.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1947);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1948).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

205. As with operating profits, Manville's 1936 record total income figure of $7,877,172 was surpassed in 1940 when Manville had total income of $9,863,040. Manville's 1940 record for total income was more than doubled in 1941 to $19,351,864. In 1942, Manville's total

income again rose, reaching $24,059,199. In sum, Manville's total income for each year between 1940 and 1944 was greater than any year preceding World War II.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1928);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1929);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1930);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1931);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1932);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1933);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1934);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1935);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

206. A portion of the huge profits made by Manville during the war was used to pay taxes, including excess profits taxes. Nonetheless, Manville's post-tax profits were well above pre-war levels:

Exhibits:

YEAR	NET INCOME WITH FUNDS FOR WAR CONTINGENCIES*
1927	4,108
1928	5,589
1929	6,591
1930	3,268
1931	583

1932	(2,260)**
1933	105
1934	749
1935	2,164
1936	4,373
1937	5,451
1938	1,455
1939	4,164
1940	5,882
1941	7,427
1942	8,030
1943	7,715
1944	6,276
1945	5,596

* in thousands.

** deficit.

Therefore, during the seven years of World War II (1939 to 1945), Manville's net income (including monies it placed in reserves to cover "war contingencies") averaged over $6,441,000 per year. Manville's average yearly wartime net income (including monies it placed in reserves to cover "war contingencies") was almost 400% higher than its average net income (including monies it placed in reserves to cover "war contingencies") in the seven years preceding World War II (1932 to 1938) when Manville's average net income (including

monies it placed in reserves to cover "war contingencies") averaged less than $1,660,000 per year.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1928);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1929);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1930);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1931);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1932);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1933);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1934);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1935);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

207. Manville's World War II sales and profits would have been even higher had the war not created labor shortages. As Lewis H. Brown told the Manville Board of Directors at their September 15, 1943 meeting:

> the falling-off in securements was due primarily to the manpower shortage which had resulted in our being unable to fill all orders received and had necessitated our setting up a system whereby our products were prorated among our customers.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (September 14, 1943).

Witness:

Roger Hackney.

208. Due to Manville's record sales and profits during World War II, Manville's overall financial strength (and overall value to the investor) was significantly greater during the war than during the 1930's:

Financial Ratios
Johns-Manville Corporation
1935 to 1945

YEAR	PRE-TAX PROFITS PER $ SALES*	AFTER-TAX PROFITS PER $ SALES*	AFTER-TAX PROFITS PER $ WORTH*
1935	9.4	6.2	6.2
1936	12.4	8.9	12.2
1937	11.8	9.1	11.7
1938	5.5	3.1	3.1
1939	11.0	7.7	8.6
1940	16.0	9.5	12.2
1941	20.4	8.0	12.3
1942	23.6	7.9	10.7
1943	16.2	7.1	8.7
1944	13.7	6.2	10.1
1945	15.6	5.9	7.0
Average			
1935-1938	9.8	6.8	8.3
1939-1945	15.6	7.5	9.9

* cents.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1936);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1937);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney H. Wolf.

209. The average profitability of the Manville Corporation was consistently higher for the war period (1939 to 1945) than for the pre-war period (1935 to 1938).

Exhibits:

See, paragraph 208, infra.

Witness:

Robert R. Nathan;

Sidney Wolf.

210. Average after-tax profits (net income) per dollar of sales increased from 6.8 cents for the 1935 to 1938 period to 7.5 cents for the 1939 to 1945 period.

Exhibits:

See paragraph 208, supra.

Witness:

Robert R. Nathan;

Sidney H. Wolf.

211. Similarly, average after-tax profits (net income) per dollar of new worth increased from 8.3 cents for the 1935 to 1938 period to 9.9 cents for the 1939 to 1945 period.

Exhibits:

See, paragraph 208, supra.

Witnesses:

Robert R. Nathan;

Sidney H. Wolf.

212. In addition to making record overall operating profits, Manville as a company earned very high profits on

the products allegedly sold to the Navy (among other purchasers). The following charts shows Manville's company-wide gross profits for the war years for 12 such products and Manville's Power Products and Industrial Division gross profits for the same period and same products:

Entire Company Percentage Of
Gross Profit On Products
It Allegedly Sold To The
Navy and Maritime Commission

PRODUCT	1940	1941	1942	1943	1944	1945
Firefelt	60.3	60.6	54.9	46.9	47.3	50.8
Superex (blocks and sheets)	54.5	47.8	50.1	45.6	42.9	41.6
Marinite	22.7	39.2	47.1	42.5	*	*
Marinite B	42.8	52.3	54.2	*	*	*
Asbestos Tape	25.1	32.2	33.4	27.5	23.2	22.7
Akoustikos Felt	36.1	35.5	35.2	36.3	24.1	29.0
Superex (pipe covering)	56.8	55.3	55.0	49.8	48.5	43.1
85% Magnesia (cement)	42.5	43.7	46.3	40.0	47.9	56.3
85% Magnesia (block)	55.6	52.4	49.6	40.8	38.7	38.7
85% Magnesia (pipe	49.1	46.6	40.9	28.4	25.6	23.9

covering)						
Ebony Asbestos (not molded)	44.1	45.3	40.9	40.1	36.7	26.9
Ebony Asbestos (molded)	31.8	29.2	35.8	27.2	26.7	22.7

*Figures not provided.

Power Products Industrial Division's Percentage Of Gross Profit On Products It Allegedly Sold To The Navy and Maritime Commission

PRODUCT	1940	1941	1942	1943	1944	1945
Firefelt	62.7	61.0	58.4	50.5	47.5	51.0
Superex (blocks and sheets)	55.8	48.5	50.1	44.9	41.4	40.8
Marinite	22.9	40.2	47.9	43.2	*	*
Asbestos Tape	26.7	34.8	36.1	29.7	27.9	26.7
Akoustikos Felt	41.8	37.5	41.8	45.8	24.1	29.0
Superex (pipe covering)	58.8	57.5	52.2	50.9	49.6	45.8
85% Magnesia (cement)	48.0	45.0	49.9	47.0	56.7	57.7
85% Magnesia (block)	56.4	52.6	49.9	41.3	38.8	37.0
85% Magnesia	51.3	48.2	42.2	32.0	28.6	25.0

(pipe covering)						
Ebony Asbestos (not molded)	44.1	50.2	39.1	37.9	35.4	25.8
Ebony Asbestos (molded)	31.9	29.2	32.6	27.1	25.5	22.0

*Figures not provided.

These figures show further that there was no across-the-board increase or decrease in Manville's gross profits on these products over the war years. Manville's gross profits were highest early in the war for some products, during the middle of the war for other products, and toward the end of the war for still other products. These figures also show that Manville's Power Products and Industrial Division, which was responsible for selling insulation to the shipyards, earned a gross profit above the company average for most products in most years; i.e., 44 of 61 categories.

Exhibits:

Johns-Manville ALL COMMODITIES : ALL DEPTS - Detailed Sales Report (1940);

Johns-Manville ALL COMMODITIES : ALL DEPTS - Detailed Sales Report(1941);

Johns-Manville ALL COMMODITIES : ALL DEPTS - Detailed Sales Report (1942);

Johns-Manville ALL COMMODITIES : ALL DEPTS - Detailed Sales Report (1943);

Johns-Manville ALL COMMODITIES : ALL DEPTS - Detailed Sales Report(1944);

Johns-Manville ALL COMMODITIES : ALL DEPTS - Detailed Sales Report (1945).

Witnesses:

Robert R. Nathan;

Sidney H. Wolf.

(b) From Its World War II Profits, Manville Created "Contingent War Reserves" To Cover Future Liabilities

213. Aware of its potential liability to World War II shipyard workers, Manville also created reserve accounts from its World War II profits to cover potential future liability, including potential future liability to shipyard workers.

Exhibits:

See paragraphs 214-234, infra.

Witness:

Roger Hackney.

214. In 1941, Manville placed $1,459,899 in a reserve account to provide "for war contingencies" or "for contingencies arising out of war conditions."

Exhibit:

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2593 (1942);

1941 Annual Report To Stockholders, at 2 (February 6, 1942).

Witness:

Roger Hackney.

215. In its 1941 Annual Report to Johns-Manville's Jobholders, Lewis H. Brown noted that the monies "set aside for contingencies arising out of war conditions" amounted to two cents of every dollar Manville made during 1941. Mr. Brown also noted that "J-M, like an aviator, must be prepared for any emergency" and that "J-M's parachute is in the form of a special fund to protect business and jobs."

Exhibit:

THE YEAR 1*9*4*1: Annual Report to Johns-Manville Jobholders From Lewis H. Brown, President, at 5 and 7 (February 25, 1942).

Witness:

Roger Hackney.

216. In its 1941 Annual Report To Stockholders, Manville stated that the $1,459,899 "set aside for contingencies arising out of war conditions" constituted 1.6% of Manville's total income for 1941. In explaining the fund, Lewis H. Brown identified several broad possible uses for $860,000 of the war contingency fund but did not tell the Manville stockholders why the company had contributed an additional $599,899 to this fund.

Exhibit:

1941 Annual Report To Stockholders, at 6 and 8 (February 6, 1942).

Witness:

Roger Hackney.

217. In the first quarter of 1942 alone, Manville "set aside [$578,665.19] for contingencies arising out of war conditions". Manville explained that the monies were put in reserve to cover "contingencies arising from the unusual character of our present business."

Exhibit:

Johns-Manville Stockholders' News (April 1942).

Witness:

Roger Hackney.

218. During all of 1942, Manville placed $2,460,000 in a reserve account to provide "for war contingencies" or "for contingencies arising out of war conditions." This amounted to 2.3% of Manville's total income for 1942.

Exhibit:

Moody's Manual of Investments - American and Foreign - Industrial Securities p. 1594 (1943);

1942 Annual Report To Stockholders, at 2 (February 2, 1943).

Witness:

Roger Hackney.

219. At its October 21, 1942 meeting, the Manville Board of Directors was told that the company's officers "had decided to increase the general reserve for contingencies so as to provide for potential liability under certain recently-enacted laws and to safeguard against unforeseen and unforeseeable contingencies other than those contemplated at the time this general reserve was established in March of 1941." (Emphasis added).

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (October 21, 1942).

Witness:

Roger Hackney.

220. Therefore, in 1943 Manville placed an additional $3,060,000 in a reserve account to provide "for war contingencies" or "for contingencies arising out of war conditions." The monies set aside by Manville in 1943 for "war contingencies" constituted 2.9% of Manville total income for 1943.

Exhibit:

Moody's Manual of Investments - American and Foreign - Industrial Securities p. 1834 (1944);

1943 Annual Report To Stockholders, p. 2 (February 3, 1944).

Witness:

Roger Hackney.

221. On June 15, 1943, Manville President Lewis H. Brown testified that the reserves Manville was setting aside "for war contingencies" should be deductible for tax purposes.

> I have one more suggestion to add which, I am sure, though less important, deserves your consideration. Reserves for contingencies are not deductible for tax purposes. Whether they should be is not relevant here. I do suggest that reasonable reserves for contingencies arising out of war conditions deserve consideration in determining whether profits are excessive in the renegotiation process.
>
> The Truman committee has suggested that reserves for post-war conversion should be so considered. That is sound as far as it goes, but such a definition is too narrow. <u>There are many other war hazards of a contingent nature</u>. I believe it is only reasonable to give them consideration before concluding that profits are excessive. (Emphasis added).

Exhibit:

<u>Investigation of the Progress of the War Effort: Hearing Before the House Committee on Naval Affairs</u>, 78th Cong., 1st Sess. 535, 546 (Statement of Lewis H. Brown, President, Johns-Manville Corporation, New York City (June 14, 1943).

Witness:

Roger Hackney.

222. In 1944, Manville placed $800,000 in a reserve account to provide "for war contingencies" or "for contingencies." The money set aside by Manville in 1944 for "war contingencies" constituted .8% of Manville's total income for 1944.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities, at 2130 (1945);

1944 Annual Report To Stockholders, at 2 (January 31, 1945).

Witness:

Roger Hackney.

223. In 1945, Manville placed $500,000 in a reserve account to provide "for war contingencies" or "for contingencies."

Exhibit:

Moody's Manual of Investments - American and Foreign - Industrial Securities, at 2476 (1946);

Moody's Manual of Investments - American and Foreign - Industrial Securities, at 2751 (1947);

1945 Annual Report To Stockholders, at 2 (May 6, 1946).

Witness:

Roger Hackney.

224. In 1946, Manville placed $107,000 in a reserve account to provide "for war contingencies". This deposit occurred many months after the end of World War II. Therefore, it could not have been made to cover normal war risks such as ship sinkings, sabotage, or supply interruption.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities, at 2751 (1947);

Moody's Manual of Investments - American and Foreign - Industrial Securities,at 1815 (1948).

Witness:

Roger Hackney.

225. Between 1941 and 1946, Manville placed a total of $8,386,899 in its special war contingencies reserve accounts.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2593 (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1594 (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1834 (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2130 (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2476 (1946);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2751 (1947);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1815 (1948);

1941 Annual Report To Stockholders, at 2 (February 6, 1942);

1942 Annual Report To Stockholders, at 2 (February 4, 1943);

1943 Annual Report To Stockholders, at 2 (February 3, 1944);

1944 Annual Report To Stockholders, at 2 (January 31, 1945);

1945 Annual Report To Stockholders, at 2 (May 6, 1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

226. The moneys which Manville placed in its war contingencies reserve account were not intended to provide money for Manville's post-war capital expenditures and post-war development/expansion, since Manville had specifically provided for those expenses in its Fund For Future Expenditure. Moreover, since deposits were made into the fund "for war contingencies" even after World War II ended, the fund must have been for a purpose unrelated to wartime interruption of shipping or losses due to ship sinkings or

similar war-related expenses. Additionally, Manville's fund for "war contingencies" could not have been for wartime contingent tax liability since Manville had a separate reserve account for federal and Canadian tax contingencies. Manville's fund "for war contingencies" was, in essence, a broad "self-insurance" fund created to deal with contingencies such as the claims of World War II shipyard workers injured by exposure to Manville's asbestos-containing materials.

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2593 (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1594 (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1834 (1944);

See paragraphs 213-234, supra, 227-234, infra, and 253-257, infra.

227. If Manville's $8.3 million fund for war contingencies had been invested at typical returns over the period 1945 to 1982, Manville's fund for war contingencies would have been worth between $101,000,000 and $282,000,000 in 1983. This huge sum would have been available to pay current liabilities, such as claims brought against Manville by World War II shipyard workers.

Witness:

Roger Hackney.

228. The $8.3 million reserve fund "for war contingencies" was not the only reserve fund Manville created during World War II which could have been available to cover Manville's liability to World War II shipyard workers injured by its asbestos-containing materials. On January 20, 1943, Manville's Board of Directors established a Fund for Deferred Expenditure. One purpose of the Fund For Deferred Expenditure was to provide Manville with reserves to pay for its planned post-war expansion. However, Manville's Fund For Deferred Expenditure was available for other purposes, including paying claims brought by World War II shipyard workers injured by Manville's asbestos-containing products.

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (January 20, 1943);

1943 Annual Report To Stockholders, at 8 (February 3, 1944);

1944 Annual Report To Stockholders, at 8 (January 31, 1945).

Witness:

Roger Hackney.

229. Between January 20, 1943 and December 1, 1943, Manville deposited $10,000,000 in the Fund For Deferred Expenditure. By December 31, 1943, Manville the

Fund For Deferred Expenditure contained $11,493,669.60. In its Annual Report To Stockholders, Manville explained that it had created the Fund in part to cover "contingent obligations which may involve the expenditure of cash". In explaining why it had put so much money aside, Manville told its stockholders that the "fund has been established by the companies to provide cash when needed for contingencies including those arising out of war conditions * * *."

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (January 20, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (February 14, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (April 21, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (July 21, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (September 15, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (December 1, 1943);

1943 Annual Report To Stockholders, at 8 and 14 (February 3, 1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2593 (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1594 (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 1834 (1944).

Witness:

Roger Hackney.

230. On February 16, 1944, the Manville Board of Directors resolved to add $2,000,000 to the Fund For Deferred Expenditure during 1944. On November 28, 1944, the Manville Board of Directors did in fact place $2,000,000 in the Fund For Deferred Expenditure. Therefore, by the end of 1944, the Fund For Deferred Expenditure held $14,022,499. In its 1944 Annual Report To Stockholders, Manville stated that the Fund existed, in part, to cover "contingent obligations which may require the expenditure of cash."

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (February 16, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (November 28, 1943);

1944 Annual Report To Stockholders, at 8, 10, 13 and 14 (January 31, 1945).

Witness:

Roger Hackney.

231. On August 15, 1945, the Manville Board of Directors decided to place funds raised by the sale of stock into the Fund for Deferred Expenditure. By the end of 1945, Manville's Fund for Deferred Expenditure had $30,202,686 (i.e., Manville placed $16,180,187 in the Fund in 1945) in part to cover "contingent obligations which may require expenditure of cash".

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (August 15, 1945);

1945 Moody's Manual of Investments - American and Foreign - Industrial Securities p. 2477 (1946).

Witness:

Roger Hackney.

232. The moneys contained in the Fund for Deferred Expenditure were available to pay claims by World War II shipyard workers who were exposed to Manville's asbestos-containing insulation products.

Witness:

Roger Hackney.

233. To Manville's management, payment of claims by World War II shipyard workers injured by exposure to Manville's asbestos-containing products would have been a "contingent obligation which may require the expenditure of cash."

Witness:

Roger Hackney.

234. During all of World War II, Manville maintained separate reserves to cover any contingent tax liabilities. Therefore, the moneys held in the "war

contingencies" fund and the Fund For Deferred Expenditure, were not intended to cover contingent tax liabilities.

Exhibits:

1941 Annual Report To Stockholders, at 2 (February 6, 1942);

1942 Annual Report To Stockholders, at 2 (February 4, 1943);

1943 Annual Report To Stockholders, at 2 (February 3, 1944);

1944 Annual Report To Stockholders, at 2 (January 31, 1945);

1945 Annual Report To Stockholders, at 2 (May 6, 1946).

Witness:

Roger Hackney.

(c) Manville Also Used Its High Wartime Profits To Expand Its Plants, Retire Its Preferred Stock And Create Reserve Funds For Later Expansion

235. During World War II, Manville used its record profits to substantially expand its business and to improve its financial position by expanding its plants, retiring its preferred stock and creating reserve funds for post-war expansion and development.

See, paragraphs 237-258, infra.

236. In 1940, the Manville Board of Directors established a Pennsylvania corporation wholely owned by

Manville to "acquire the new Zelienople plant." In 1941, with its total sales up approximately 50%, Manville expanded its plant at Zelienople, Pennsylvania.

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (March 25, 1940);

Arthur Cummins A Century of Service with Johns-Manville (September 11, 1958).

Witnesses:

Roger Hackney.

237. Since Manville was having trouble filling all the orders it was getting for magnesia production, Manville's Board of Directors on March 17, 1941 approved the expenditure of $260,000 to expand production at Manville's and Waukegan magnesia plants.

Exhibit:

Minutes of the Johns-Manville's Board of Directors Meeting (March 17, 1941).

Witnesses:

Roger Hackney.

238. Manville's wartime expansion included expansion of its sources of supply as well as its means of production. On May 19, 1941, Manville's Board of Directors was informed that the Manville Products Corporation had spent approximately $100,000 to reopen and resume production at

the Arizona Mine, a mine which had not been operated commercially since about 1928.

Exhibit:

Minutes of the Johns-Manville's Board of Directors Meeting (May 19, 1941).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney H. Wolf.

239. In 1942, with total sales up approximately 75% over 1940 levels, Mavnille expanded its facilities at Lompoc, California.

Exhibits:

Arthur Cummins, A Century of Service With Johns-Manville (September 11, 1958);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943).

Witness:

Roger Hackney;

240. On March 15, 1944, Manville's Board of Directors approved the expenditure of $500,000 to construct a building at its Manville plant for the manufacture of thin asbestos

paper and $300,000 to construct another building at its Manville plant for the manufacture of magnesia products.

Exhibit:

Minutes of the Johns-Manville's Board of Directors Meeting (March 15, 1944).

Witness:

Roger Hackney.

241. On April 19, 1944, Manville's Board of Directors approvedy the expenditure of $100,000 for new equipment for the Manville plant.

Exhibit:

Minutes of the Johns-Manville's Board of Directors Meeting (April 19, 1944).

Witness:

Roger Hackney.

242. At their January 17, 1945 meeting, the Manville Board of Directors were read a special report entitled "Capital Expenditures" which estimated that Manville would spend $5,322,696 for capital expenditures during 1945. The capital expenditures included $235,000 to buy equipment required to inaugurate Manville's strip mining program at Lompoc, California.

Exhibit:

Minutes of the Johns Manville Board of Directors Meeting (January 19, 1945).

Witness:

Roger Hackney;

243. At its April 18, 1945 meeting, Manville's Board of Directors approved spending $1,000,000 to purchase and install an additional rag felt machine at its Manville plant. The Board of Directors also discussed Lewis H. Brown's report on "Planning of Capital Expenditures". The report previewed capital expenditures of between $38,000,000 and $44,000,000 over the years 1945 to 1951 for "(1) acquisition of manufacturing companies; (2) acquisition of financial interests in foreign fields; and (3) acquisition of sources of raw materials."

Exhibit:

Minutes of the Meeting of the Johns-Manville Board of Directors (April 18, 1945).

Witness:

Roger Hackney.

244. At its May 16, 1945 meeting, the Manville Board of Directors authorized the expenditure of $700,000 for, among other things, the "design of new research laboratory facilities at Manville, New Jersey."

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (May 16, 1945).

Witness:

Roger Hackney.

245. On August 15, 1945, the Manville Board of Directors authorized $2,200,000 for research buildings at the Manville plant. The entire "Research Laboratory" project was estimated to cost $5,000,000.

Exhibit:

Minutes of Johns-Manville Board of Directors Meeting (August 15, 1945).

Witness:

Roger Hackney.

246. During World War II and while engaged in the large expansion detailed above, Manville was also able to buy back all of its 7% preferred stock. In 1939, Manville had 75,000 shares of 7% preferred stock outstanding.

Exhibit:

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2645 (1940)

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney H. Wolf.

247. At its March 22, 1940 meeting, the shareholders approved the redemption of 7,500 shares of Manville's 7% preferred stock.

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (March 22, 1940);

Minutes of the Johns-Manville Board of Directors Meeting (May 22, 1940);

Minutes of the Johns-Manville Board of Directors Meeting (January 15, 1940).

Witness:

Roger Hackney.

248. By January 2, 1941 Manville had bought back another 17,500 shares of its 7% preferred shares. Therefore, in 1940, Manville had repurchased one-third of its outstanding 7% preferred stock (25,000 shares) using $3,000,000 of its wartime profits.

Exhibit:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney H. Wolf.

249. During 1942, Manville retired another 25,000 shares of its 7% preferred stock, again spending $3,000,000 of its wartime profits.

Exhibits:

Minutes of the Johns-Manville's Board of Directors Meeting (May 8, 1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities p. 2595 (1942).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney H. Wolf.

250. On February 16, 1944, after discussion of Manville's cash situation, the Manville Board of Directors decided "that the Corporation's current cash position and probable future position warranted the prompt retirement of the remaining 25,000 shares of the Corporation's Cumulative 7% Preferred Stock. Therefore, they resolved that "this Corporation call for redemption and redeem 25,000 shares of its Cumulative 7% Preferred Stock on April 1, 1944, being all of the outstanding shares." Manville repurchased the last 25,000 shares of its 7% preferred stock using $3,000,000 of its wartime profits. Thus, between April 1940 and May 1945, Manville was able to repurchase all of its 7%

preferred stock with $9,000,000 its profits from wartime sales.

Exhibit:

Minutes of the Johns-Manville's Board of Directors Meeting (February 16, 1944).

Witness:

Roger Hackney.

251. Having retired all of its 7% preferred stock, Manville in 1945 chose to issue preferred stock to raise capital for its huge post war expansion. However, the preferred stock Manville issued in 1945 was at half the earlier rate of 7% preferred stock; i.e., 3-1/2%.

Exhibits:

See, paragraphs 246-250, supra.

Minutes of the Johns-Manville's Board of Directors Meeting (June 13, 1945);

Minutes of the Johns-Manville's Board of Directors Meeting (July 17, 1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

252. In addition to its wartime plant expansion and its wartime elimination of all of its outstanding 7% preferred stock, Manville was also able to create huge reserves for its planned post-war expansion.

Exhibit:

See, paragraphs 236-251, supra, and paragraphs 253-258, infra.

253. As noted above, on January 20, 1943, Manville's Board of Directors established a Fund For Deferred Expenditure "to meet the Corporation's requirements of deferred expenditure or other purposes whether current or deferred." According to the minutes of the meeting, the "special Fund for Deferred Expenditure [existed] to provide for contingencies which might require cash and for plant additions and repairs at the end of the war, and to assist the Canadian subsidiary in meeting the cost of changing to underground mining."

Exhibits:

Minutes of the Johns-Manville Board of Directors; Meeting (January 20, 1943);

1943 Annual Report To Stockholders, at 8 (February 3, 1944);

1944 Annual Report To Stockholders, at 8 (January 31, 1945).

Witness:

Roger Hackney.

254. By December 31, 1943, Manville the Fund For Deferred Expenditure contained $11,493,669.60. In the 1943 Annual Report To Stockholders, Lewis H. Brown wrote:

> War conditions have created an unusual future requirement for cash. Principally this requirement is of three kinds: contingent obligations which may involve the expenditure of cash, capital expenditures which would have been made during this period had not war conditions prevented, and other capital expenditures which will be necessary for postwar development. In January, 1943, the Board of Directors concluded to provide therefor, in whole or in part, by establishing a Fund for Deferred Expenditure. At different times during the year amounts of cash totally $10,000,000 have been deposited in this Fund. (Emphasis added.)

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (January 20, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (February 14, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (April 21, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (July 21, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (September 15, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (December 1, 1943);

1943 Annual Report To Stockholders, at 8 and 14 (February 3, 1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities at 2593; (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities 1594; (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944), p. 1834.

Witness:

Roger Hackney.

255. By the end of 1944, the Fund for Deferred Expenditure held a total of $14,022,499. This was in addition to the $7,176,104 which Manville had set aside by 1944 as "Reserves for contingencies" and in addition to the millions of dollars Manville placed in its war contingency reserves.

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (February 16, 1943);

Minutes of the Johns-Manville Board of Directors Meeting (November 28, 1943);

1944 Annual Report To Stockholders, at 8, 10, 13 and 14 (January 31, 1945).

See, paragraph 220-239, supra.

Witness:

Roger Hackney.

256. On August 15, 1945, the Manville Board of Directors decided to place funds raised by the sale of stock into the Fund for Deferred Expenditure. By the end of 1945, Manville's Fund for Deferred Expenditure contained

$30,202,686 (i.e., Manville set aside $16,180,187 for the Fund in 1945) which was "available for capital expenditure and for contingent obligations which may require expenditure of cash".

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (August 15, 1945);

1945 Moody's Manual of Investments - American and Foreign - Industrial Securities (1946), p. 2477;

1945 Annual Report To Stockholders, pp. 5, 13, 15 (May 6, 1946).

Witness:

Roger Hackney.

257. Therefore, during World War II, Manville had been able out of its profits to withhold tremendous amounts of cash for post-war expansion and for other purposes beneficial to the Company.

Exhibits:

See paragraphs 258-261, supra.

Witness:

Roger Hackney.

258. The degree to which Manville improved its financial position during World War II is shown by the increase in its total assets during World War II. Between January 1, 1940 and December 31, 1945, Manville's total

assets increased by 65.43%. Between January 1, 1938 and December 31, 1947, Manville's total assets increased by 124.76% from $51,281,513 to $115,259,357. Specifically, Manville's total assets between 1938 and 1947 were:

YEAR	TOTAL ASSETS	% CHANGE
1938	51,056,564	(00.44%)
1939	53,749,841	5.28%
1940	58,877,846	9.54%
1941	69,242,590	17.60%
1942	79,993,791	15.55%
1943	78,660,466	(01.17%)
1944	74,225,488	(05.64%)
1945	88,917,719	19.79%
1946	95,294,051	7.17%
1947	115,259,357	20.95%

Exhibits:

Moody's Manual of Investments - American and Foreign - Industrial Securities (1938);
Moody's Manual of Investments - American and Foreign - Industrial Securities (1939);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1940);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1941);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1942);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1943);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1944);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1945);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1946);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1947);

Moody's Manual of Investments - American and Foreign - Industrial Securities (1948).

Witnesses:

Roger Hackney;

Robert R. Nathan;

Sidney Wolf.

(d) Manville Utilized Its WW II Profits To Expand Its Business And To Dominate The Post-War Insulation Market

259. By mid-war, Manville was already planning for post-war expansion. On February 3, 1943, Lewis H. Brown wrote in the 1942 Annual Report To Stockholders:

> Meanwhile, the Company is looking toward the post-war period and to the day when its major customers once again will be home owners and new home builders and industries engaged in the manufacture of peacetime goods. Obviously, with a war for survival now requiring every energy, this is not the time to deal with specific post-war plans. It is proper, however, to assure stockholders that the management has not lost sight of the post-war era. When that time comes Manville will be prepared and ready to enter vigorously into the tremendous task that must be undertaken.

Exhibit:

1942 Annual Report To Stockholders, at 11 (February 3, 1943).

Witness:

Roger Hackney.

260. At their September 20, 1944 meeting, Lewis H. Brown informed the Board of Directors of Manville's planning for the future:

> Mr. Brown provided the Directors with a detailed description of the manner in which the officers of the Corporation were attacking the problems involved in future planning for the reconversion and post-war period. Plans were being formulated which, if carried to completion, would involve capital expenditures for new plants and new processes and for the enlargement of existing facilities. Such expenditures in the aggregate would be of considerable magnitude; certain individual projects would likewise be large but the entire program covers so many projects and would involve so much detail and was, in many cases, so tentative that Mr. Brown felt it was not feasible at this time to provide the Board with more than a general description of the projects the officers had in mind, many of which would ultimately require specific approval of the Directors.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (September 20, 1944).

Witness:

Roger Hackney.

261. Four months later, at the January 17, 1945 meeting of the Manville Board of Directors, R. W. Lea (standing in for Lewis H. Brown) read the directors a "Special Report" entitled "Capital Expenditures" which estimated that Manville would make capital expenditures of $5,322,696 during 1945.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (January 17, 1945).

Witness:

Roger Hackney.

262. On April 18, 1945, Lewis H. Brown presented the Manville Board of Directors with copies of a "confidential report" entitled "Planning Studies Under Way in Manville". This confidential report "contained a preview of the capital expenditures of from $38,000,000 to $44,000,000 over the years 1945 to 1951 * * *." Specifically, the report "covered (1) acquisition of manufacturing companies; (2) acquisition of financial interests in foreign fields; and (3) acquisition of sources of raw materials."

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (April 18, 1945).

Witness:

Roger Hackney.

263. Also in 1945, Lewis H. Brown wrote a document entitled "V-Day in Europe -- Its Effect on JM." In the document, the president of Manville stated that: "Manville will not have to shutdown for reconversion. We shall continue to make, by and large, the same products we are now making." (Emphasis added). In sum, at the end of World War II, Manville hit the ground running toward expanding its leadership of the asbestos product industry.

Exhibit:

Lewis H. Brown, V-Day in Europe -- Its Effect on JM (1945).

Witness:

Roger Hackney.

264. In his 1945 Annual Report To Stockholders, Lewis H. Brown reported that Manville had put its post-war plans into effect shortly after V-J Day.

> An expansion, cost reduction, replacement and improvement program to require expenditure of about $50,000,000 in the next few years was launched shortly after V-J Day.
>
> Projects to be undertaken include expansion of production and research facilities, introduction of new products, cost reduction through further

mechanization of processes, improvement of working conditions replacement of worn equipment, and expansion of foreign business.

Exhibit:

1945 Annual Report To Stockholders, at 8 (May 6, 1946).

Witness:

Roger Hackney.

265. One aspect of Manville's strategic corporate planning during the war was to utilize contracts and business relationships, particularly in shipyards, as the foundation for post-war expansion. On October 25, 1943, C. C. Simoni issued "The Marine Industry", a Manville document "compiled by the Power Products and Industrial Departments of Manville for company use only." Throughout this document, Manville's Power Products and Industrial Departments made clear their plan to exploit their wartime contacts with shipyards and ship owners to assure themselves a large share of the post-war marine insulation market: Manville's attitude is summarized as follows in the Introduction:

> Everything else is up to the ship operator - who until the war is over will not have to build ships, sell space, or pay damage claims. By that time, we should know them well, for our own good.

In discussing its "Accomplishments To Date", Manville said:

> In studying the underlying facts behind these percentages it appears that we have done a pretty good job on the whole, and we should be in a fair position with long pull, after-the-war connections. Our prediction is that we will stay in the yards where we are working now and our competitors will remain in theirs - but we must not lose any yards.

Finally, in Section 9 of "The Marine Industry", Manville concluded:

> (5) We understand that extensive plans are being prepared by the U.S. Maritime Commission in conjunction with certain Naval Architects and ship operators involving the post war construction of modern commercial ships. Before that time arrives, however, it would be well for us to re-establish our contacts with the important ship owners and operators.

Exhibit:

> Johns-Manville Power Products and Industrial Department, The Marine Industry (1943).

266. Manville was not alone in perceiving that the asbestos industry would have to readjust to non-wartime business. In February 1944, Asbestos Magazine outlined the problems facing the asbestos industry in the post-war economy. The major problem was that more substitutes for asbestos-containing products had been used during the war and the asbestos industry, led by Manville, would have to recapture these markets. The article suggested two

approaches: "Research work to improve and to find new uses" for asbestos; and "Advertising to keep the public informed of such improvement and uses." In March, 1946, Asbestos Magazine published an article entitled "Lesson in Selling" in which it suggested that asbestos industry salesmen would have to be "blasted out of their habits of salesmanship" learned during World War II, when sales were plentiful.

Exhibits:

Asbestos Magazine at 8 (February 1944);

Asbestos Magazine at 16 (March 1946).

267. With the end of the war in August, 1945 Manville went on a spending spree that lasted several years. In August 15, 1945, Manville's Board of Directors authorized the expenditure of $2,200,000 for research facilities at the Manville plant.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (August 15, 1945).

Witness:

Roger Hackney.

268. At its September 19, 1945 meeting, the Manville Board of Directors authorized its Canadian subsidiary to spend $1,370,000 for a rock storage building, an addition to a mill, some "experimental tests" and

"miscellaneous expenditures" of $220,000. The Manville Board of Directors also approved a $216,000 expenditure for an expansion to the Manville, New Jersey, plant, a $138,000 expenditure for an expansion of the Waukegan plant, a $500,000 expenditure for additional machinery at the Waukegan and Watson plants, and a $94,000 expenditure for equipment at the Pittsburgh plant.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (September 19, 1945).

Witness:

Roger Hackney.

269. At its October 17, 1945 meeting, the Manville Board of Directors approved a $195,000 expenditure for additional equipment for the Waukegan plant and a $302,000 expenditure for equipment at the Richmond plant.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (October 17, 1945).

Witness:

Roger Hackney.

270. On October 22, 1945, President Lewis H. Brown informed the Board of Directors of Manville's negotiations to purchase "a certain company engaged in the manufacture of

a building material which would supplement the Manville line.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (October 22, 1945).

Witness:

Roger Hackney.

271. At its November 21, 1945 meeting, the Manville Board of Directors approved the expenditure of $85,000 to increase the Manville plant's production capacity, $416,000 for a new machine for the Manville plant, $123,000 for another new machine for the Manville plant, $84,000 for a corporate plane, $149,000 to enlarge the Waukegan plant's capacity, $847,000 for new machinery for the Waukegan plant, $519,000 for expansion of the Watson plant, $66,000 for new machinery to be used at "some location on the West Coast" and $128,000 for expansion of facilities and purchase of machinery at the Asbestos plant. The Directors also received another report on Manville's attempt to purchase another company.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (November 21, 1945).

Witness:

Roger Hackney.

272. At its December 19, 1945 meeting, the Manville Board of Directors approved the expenditure of $5,000,000 for the construction of a new plant in Mississippi and $117,000 for new equipment for the Watson plant.

Exhibit:

Minutes of the Johns-Manville Board of Directors Meeting (December 19, 1945).

Witness:

Roger Hackney.

273. Thus, in the five months between August and December 1945, the Manville Board of Directors approved the expenditure of over $12 million.

Exhibits:

See, paragraphs 267-272, supra.

274. Manville's Board of Directors continued spending money for capital expansion in 1946. During the first nine months of 1946, the Manville Board authorized over $11 million worth in various major expenditures.

Exhibits:

Minutes of the Johns-Manville Board of Directors Meeting (January 16, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (February 20, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (March 20, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (April 17, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (May 15, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (June 11, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (June 19, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (July 17, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (August 21, 1946).

Minutes of the Johns-Manville Board of Directors Meeting (September 18, 1946).

Witness:

Roger Hackney.

275. On September 19, 1946, Lewis H. Brown issued a Chairman of the Board's Bulletin in which he said:

> During the past years we have been laying the foundation for a major expansion of Manville. Our post-war $50-million-dollar capital expenditure program which is now well underway will give us the tools with which at least double our prewar volume of business. But this is only the beginning of a larger long range program.
>
> The attainment of our purpose will be (1) by research, development and expansion from within, and (2) by acquisition from without.

Thus, one year after the end of World War II, Manville had spent over $24 million for capital expenditures and that was "only the beginning of a larger long range program."

Exhibits:

Chairman of the Board's Bulletin No. 1 (September 18, 1946);

Witness:

Roger Hackney.

276. In the 27 months between September 1946 and January 1948, the Manville Board of Directors would approve expenditures (excluding the expenditures of its subsidiaries) in excess of $8 million. By the end of 1948, Manville had about doubled its "company size" from a decade earlier, when its Board of Directors discussed "the extremely poor business" late in 1937 and early in 1938.

Exhibit:

1946 Index of Minutes;

1947 Index;

1948 Index;

Arthur Cummings, A Century of Service with Johns-Manville (September 11, 1958);

Minutes of the Johns-Manville Board of Directors Meeting (January 31, 1938);

Minutes of the Johns-Manville Board of Directors Meeting (May 16, 1938).

Witness:

Roger Hackney.

277. Manville continued its expansion with it's 1949 purchase of an asbestos mine near Matheson, Ontario and its 1952 acquisition of a controlling interest in Rhodesian Asbestos Ltd.

Exhibits:

Arthur Cummings, A Century Of Service with Johns-Manville (September 11, 1958).

Witness:

Roger Hackney.

278. In sum, during World War II Manville made plans to expand its asbestos-related business at the end of the war and placed money from its wartime profits in reserve accounts to fund this expansion. Using its huge wartime profits as a springboard, Manville did in fact institute a massive expansion program immediately upon the close of war. In this post-war expansion, Manville did not significantly diversify its operations or business. Rather, it continued to purchase and sell asbestos and asbestos-related products.

Exhibits:

Planning in Johns-Manville (January 17, 1945);

See paragraphs 253-277, supra.

C. THE METALS RESERVE COMPANY'S PURCHASE, IMPORTATION, AND SALE OF AFRICAN ASBESTOS TO MANVILLE BEGINNING IN MID-1943 ENSURED MANVILLE ADEQUATE SUPPLIES OF FIBER AT REASONABLE PRICES

279. The Reconstruction Finance Corporation (hereinafter "RFC") was established in 1932 to extend financial aid to commerce, industry and agriculture by means of direct loans and other financial assistance. With the advent of the war, Congress authorized the RFC to facilitate procurement of scarce materials. In 1940, the RFC created the Metals Reserve Company.

Exhibits:

Act of January 22, 1932, ch. 8, § 1, 47 Stat. 5;

Act of June 10, 1940, ch. 190, 55 Stat. 250;

Act of June 25, 1940, ch. 427, § 5, 54 Stat. 572;

Joint Resolution of June 30, 1945, ch. 215, 59 Stat. 310;

Act of June 30, 1947, ch. 166, 61 Stat. 202, 208;

Act of July 30, 1953, ch. 682, 67 Stat. 230.

6 Fed. Reg. 2970, 5464 (1940).

280. In mid-1941, the Metals Reserve Company declined an offer by an American manufacturer to sell it a quantity of Rhodesian fiber. Instead, the Metals Reserve Company suggested that the offeror communicate with Manville, who was in the market for material of the offered grade.

Exhibit:

Letter from Charles B. Henderson, President, Metals Reserve Company, to Ernest Muehlock, Keasby & Mattison Company (June 27, 1941).

281. Although in mid-1941 the Metals Reserve Company had acquired some African asbestos fiber for stockpile, the government was not then precluding private importation.

Exhibit:

Memorandum from Simon D. Strauss to W. L. Clayton (with handwritten note from W.L. Clayton to Simon D. Strauss) (June 24, 1941).

Witness:

Simon D. Strauss.

282. During the first half of 1942, 3,300 tons of asbestos fiber was lost due to the sinking of a ship coming from Southern Africa. The threat of enemy action required that the government use Naval convoys to protect shipments of raw materials from Africa.

Exhibits:

History of the Cork, Asbestos & Fibrous Glass Division, War Production Board, 1941-1945, at 3 (October 1945);

Manville Complaint at ¶ 26.

Witness:

Simon Strauss

283. As of April 1942, all available major supplies of normally-imported African grades of asbestos fiber had been purchased by the manufacturers, leaving none available for purchase by the Metals Reserve Company.

Exhibit:

Memorandum from Fred W. Gardner, Chief, Cork-Asbestos Branch, WPB, to William Batt (April 3, 1942).

284. In June of 1942, the Metals Reserve Company and the Cork-Asbestos Section of the War Production Board turned to Raybestos-Manhattan, Inc., a manufacturer of asbestos-containing products, for testing and information on a grade of Rhodesian asbestos fiber that a private broker was suggesting for purchase. The President of Raybestos-Manhattan recommended purchase of the tested grade of Rhodesian asbestos "only as insurance against future boat sinkings. . . ."

Exhibits:

Letter from S. D. Strauss, Vice President, Metals Reserve Company, to Sumner Simpson, President, Raybestos-Manhattan, Inc. (June 26, 1942);

Letter from Sumner Simpson to S. D. Strauss, Metals Reserve Company, at 2 (July 3, 1942).

285. In a letter dated June 17, 1942, from G. Temple Bridgeman, Executive Vice-President of the Metals Reserve Company, to the Chief of the War Production Board's Cork and Asbestos Section, Mr. Bridgeman referred to 500

tons of VRA-2 grade of African asbestos fiber which had been offered in March 1942 and stated:

> [i]t is our understanding that in the event that Raybestos decides that it does not care to purchase this quantity, you will so advise us and we will then attempt to resume negotiations. (Emphasis added.)

At that time, there were no contracts for purchase of African asbestos by the Metals Reserve Company other than one calling for delivery of 600 tons of Cape Blue asbestos.

Exhibits:

Letter from G. Temple Bridgeman to Fred W. Gardner (June 17, 1942);

Letter from Fred W. Gardner to G. Temple Bridgeman (June 6, 1942).

286. In mid-1942, the Metals Reserve Company and the Cork-Asbestos Branch of the War Production Board turned to the asbestos industry, and Manville in particular, for testing and advice on whether the Metals Reserve Company should purchase certain grades of Russian asbestos fiber offered for sale by a private American broker. The Metals Reserve Company declined the offer to purchase.

Exhibits:

Letter from Fred W. Gardner, Chief, Cork-Asbestos Branch, WPB, to S. D. Strauss, Metals Reserve Company (July 2, 1942);

Letter from S. D. Strauss, Assistant Vice President, Metals Reserve Company to Leonard Buck (July 8, 1942);

Letter from Leonard Buck, Leonard J. Buck, Inc., to S.D. Strauss, Assistant Vice President Metals Reserve Company (July 10, 1942);

Letter from S.D. Strauss to Leonard J. Buck (July 13, 1942).

287. In August of 1942, the Chief of the War Production Board's Cork-Asbestos Branch advised the Metals Reserve Company that it should hold in abeyance a possible purchase of South African asbestos fiber from a private broker, since "[a]n informal conference with the large users and buyers of South African asbestos will be held shortly," "negotiations [were] now under way with the large mines in South African for an increase in production," and "if this can be brought about, there will be a . . . satisfactory solution to this problem, as their grades are well known and are adaptable to our manufacturing processes in this country." C.J. Stover had evaluated the offered asbestos fiber for the Metals Reserve Company.

Exhibits:

Letter from S. D. Strauss, Assistant Vice President, Metals Reserve Company to Fred W. Gardner (July 13, 1942);

Letter from Fred W. Gardner, Chief, Cork-Asbestos Branch, WPB, to S.D. Strauss, Assistant Vice President Metals Reserve Company (August 4, 1942);

Letter from S. D. Strauss, Assistant Vice President, Metals Reserve Company to Fred W. Gardner, Chief, Cork-Asbestos Section, WPB (August 12, 1942);

Letter from John K. Norton to Simon D. Strauss (June 20, 1942).

288. By mid-September 1942, the government had appointed a committee of the asbestos industry representatives "to assist in making purchase contracts" and had scheduled a meeting of the committee at which the Committee was to "draft proper specifications to assist in placing purchase contracts." Members of the committee included E. S. Crosby, President, Johns-Manville International Co., and L. J. Silverman, Vice-President, Union Asbestos & Rubber Company.

Exhibit:

> Letter from Fred W. Gardner, Chief, Cork Asbestos-Branch, War Production Board, to S. D. Strauss, Assistant Vice-President, Metals Reserve Co. (September 17, 1942).

289. On September 25, 1942, the Specification and Testing Industry Advisory Committee for African Asbestos Fibres held a meeting "to discuss specifications for African asbestos fibres and a program concerning the procurement of African asbestos fibers to insure an adequate supply for 1943." It was noted that the Committee was advisory in nature and that "[p]olicy decisions are made and enforced by WPB, a procedure which avoids conflict with antitrust laws." Since the Board of Economic Warfare was to negotiate contracts for the purchase and delivery of African asbestos fibers during 1943, information was "needed by that agency on the quantity and grades of material that should be bought." It was understood that "[e]ach buyer already [had]

indicated the quantity of material that he would normally contract for during 1943" and that "[a]dded to these figures will be an additional amount for a reserve stockpile, plus an allowance to cover shipping losses or unexpected changes in shipping schedules." It was estimated that "the over-all shipping loss to the industry during the contract year 1942 averages 15 percent."

Exhibit:

> Specification and Testing Industry Advisory Committee for African Asbestos Fibres, Summary of Meeting, at 2 (September 25, 1942).

290. In response to the government's request to the asbestos industry advisory committee for "background information on acceptable grades," Mr. Crosby of Johns-Manville International said that the industry had never prepared detailed specifications for African asbestos fibers, that all shipments had been received in accordance with samples offered by the firms with whom transactions had been made, that this buying arrangement had worked to the asbestos industry's complete satisfaction and that a departure from the established pattern was not advisable. It was noted that the two chief suppliers of African asbestos fibre, Cape Asbestos and Turner & Newall, had been furnishing standard products over a long period of years and the approximately nine buyers of African asbestos fiber in American industry had "dealt with one or both of these firms

for some time." The general feeling of the industry representatives was "that as long as the shipments were like the grades now being shipped they would meet their needs." Representatives from the Board of Economic Warfare and the Metals Reserve Company responded that "a representative from the industry competent to furnish expert advice [was] wanted" and that, "without the benefit of the industry's assistance, it would be impossible to reach a decision on grade and quality." A list of acceptable grades was then provided by the industry representatives.

Exhibit:

Specification and Testing Industry Advisory Committee for African Asbestos Fibres, Summary of Meeting, at 2-4 (September 24, 1942).

Witness:

Simon D. Strauss.

291. To provide such technical advice, W. Jacobsen of Asbestos Fibre Distributors, a Division of Johns-Manville Sales Corporation, accompanied the Board of Economic Warfare negotiator during his negotiation in London late 1942 for South African asbestos fiber.

Exhibits:

Letter from W. Jacobsen to Simon D. Strauss, Assistant Vice President, Metals Reserve Company (October 30, 1942);

Specification and Testing Industry Advisory Committee for African Asbestos Fibers, Summary of Meeting, at 5 (February 16, 1943);

Letter from W. Jacobsen, Asbestos Fibre Distributors, Division of Johns-Manville International Corporation to Metals Reserve Company (Feb. 16, 1943) (with enclosure of Mr. Jacobsen's report to E.S. Crosby, Johns-Manville International Corporation and other asbestos companies (January 29, 1942) (with enclosure of Letter from W. Jacobsen to Mr. Wasserman (Dec. 5, 1942); Letter from W.E. Wasserman to W. Jacobsen (Dec. 7, 1942); Letter from R.M. Bateman to W. Jacobsen (Dec. 2, 1942); Letter from W. Jacobsen to W. F. Sheperd, Chairman, Turner & Newall, Ltd. (Dec. 15, 1942); Letter from W. Shepherd to W. Jacobsen, Johns-Manville Corp. (Jan. 1, 1943); Letter from R. R. Williams to Mr. Jacobsen (Dec. 16, 1942); Letter from W. Jacobsen to W. Rennison, Ministry of Supply of Asbestos (Nov. 30, 1942); Letter from W. Rennison to Mr. Sherriff (Dec. 1, 1942); Letter from A.B. Robinson to W. Jacobsen, Johns-Manville Co. (Dec. 9, 1942); Letter from W. Jacobsen to A.B. Robinson (Dec. 7, 1942); Letter from R.F. Bradley to Mr. Jacobsen (Dec. 11, 1942));

Letter from S.D. Strauss to William Jacobsen (Feb. 27, 1943).

Witness:

Simon D. Strauss.

292. During the conference of the United States Board of Economic Warfare and the British Missions of Supply in December, 1942 and January, 1943, contracts were signed with asbestos fiber producers for delivery of 57,490 short tons of asbestos fiber from South Africa and Rhodesia to the Metals Reserve Company. The conference was part of the United States' participation in the Combined Raw Materials Board, through which the United States and British officials

worked to increase and equitably distribute material in short supply.

Exhibits:

History of Cork, Asbestos & Fibrous Glass Division, War Production Board, 1941-1945, at 4-5 (October 1945);

Memorandum of Understanding between the United States of America and the United Kingdom of Great Britain and Northern Ireland (January 6, 1943);

Combined Raw Materials Board Memorandum from J. J. Chetwynd to A. B Tatistcheff (August 10, 1943).

293. The contracts signed in London for delivery of African fiber to Metals Reserve during 1943 called for, and resulted in, importation of greater amounts of African asbestos fiber than the asbestos industry had obtained in 1942, and greater percentages in the export of these fibers to the United States.

Exhibits:

Letter from W. Shepherd, Turner & Newell, Ltd., to W. Jacobsen (Jan. 1, 1943);

Summary of Meeting of Specifications and Testing Industry Advisory Committee for African Asbestos Fibers at 4 (February 16, 1943);

Summary of Meeting of African Asbestos Fibre Industry Advisory Committee, War Production Board, at 2 (September 8, 1943);

United States Department of Interior, Bureau of Mines, 1950 Materials Survey - - Asbestos at IX-14, IX-17 (1952).

294. The importance of the government's participation in the Combined Raw Materials Board to a continuing and even increased supply of asbestos fiber is underscored by the following facts. First, Great Britain, which also used African asbestos fiber during the war, was the home of Turner & Newall and Cape Asbestos, the British companies that controlled the African mines from which the major, imported grades of African asbestos were purchased. Second, Great Britain had influence over the distribution of African asbestos fiber by virtue of the fact that Rhodesia was then its colony. Third, Turner & Newall controlled Keasby & Mattison, which would have worked to the disadvantage of other American asbestos product manufacturers during times of shortages of asbestos fiber.

Witness:

Simon Strauss.

295. The Metals Reserve Company's foreign purchases of asbestos fiber grades which were in short supply also helped keep the price of the material from rising sharply. During the negotiations, Mr. Jacobsen congratulated the government's negotiator on persuading Sir Samuel Turner and Mr. Shepherd to forego an increase of 7 and 1/2 percent which they had decided to put into effect.

Exhibits:

Report from W. Jacobsen, Asbestos Fibre Distributors, Division of Johns-Manville Sales Corporation, to E. S. Crosby, President, Johns-Manville International Corporation and others at 3 (Jan. 29, 1942) (with enclosure of Letter from W. Jacobsen to Mr. Wasserman (December 5, 1942)).

Witness:

Simon Strauss.

296. The government's purchase of large amounts of certain grades of asbestos fiber which were in short supply also relieved the asbestos industry of the danger of substantial losses on inventory should use of the material decline after the war.

Exhibit:

Summary of Meeting of Specification and Testing Industry Advisory Committee for African Asbestos Fibers, at 4 (February 16, 1943).

Witness:

Simon Strauss.

297. The government's purchase of African asbestos was also beneficial to United States' manufacturers of asbestos-containing products in that the government was "in a better position to secure proper shipping space than private companies buying for their own account."

Exhibit:

Summary of Meeting Asbestos Textiles Advisory Committee, at 3 (October 22, 1942).

Witness:

Simon Strauss.

298. Importation by the Metals Reserve Company also avoided the payment of customs duties.

Exhibit:

Exec. Order No. 9177, May 30, 1942, 3 C.F.R. 1166-67 (1938-1943 Compl.)

299. Individual asbestos companies were not obligated to accept the asbestos fiber purchased by the Metals Reserve Company.

Exhibit:

Summary of Meeting of the Specification and Testing Industry Advisory Committee for African Asbestos Fibres, at 3 (February 16, 1943).

300. The planned procedure for distribution of the asbestos fiber purchased by the government involved notice of a shipment to the industry from the Cork and Asbestos Division asking companies "with the smallest stocks on hand whether they wish[ed] to be included in the distribution of the asbestos. . . . If a company wish[ed] asbestos, the Metals Reserve Company" would arrange for a contract to be

sent to the company. (Summary of Meeting of Feb. 16, 1943). The asbestos industry was pleased with this arrangement.

Exhibits:

> Summary of Meeting of Asbestos Textiles Industry Advisory Committee, at 3 (October 22, 1942);
>
> Summary of Meeting of Specification and Testing Industry Advisory Committee for African Asbestos Fibers, at 4 (February 16, 1943);
>
> Memorandum from Henri Rush, Chief, Building Materials Section, War Production Board, to Irving Swerdlow, Acting Chief, Public Welfare & Facilities Division (February 18, 1943);
>
> Summary of Meeting of African Asbestos Fibre Industry Advisory Committee, War Production Board, at 5 (September 8, 1943).

301. In January, 1943, Simon Strauss noted that the Metals Reserve Company "made no sales of this asbestos or of any comparable grade during March 1942 [the base period for purposes of the Office of Price Administration's General Maximum Price Regulation]" and "that in the past these grades of asbestos were imported by the consumers for their own account, at substantially the same cost prices f.o.b. port of shipment as we are now paying." (emphasis added.) He added:

> We propose to sell this material f.o.b. cars, shipside, at any United States gulf or Atlantic coast port, upon the basis of this cost, plus ocean freight, insurance, and an additional 5% to cover overhead . . . .

Exhibit:

Letter from S.D. Strauss to John D. Sumner (January 5, 1943).

Witness:

Simon D. Strauss

302. The Metals Reserve Company also kept the shipping insurance rate low. While the Metals Reserve Company briefly considered charging war risk insurance at the commercial rate of 17 and 1/2 percent on its authorized sales to consumers in this country, it calculated its prices "using the War Shipping Administration's rate of 4% for war-risk insurance, rather than the commercial rates." (Letter of February 15, 1943).

Exhibits:

Letter from S.D. Strauss to A. Philip Woolfson, Office of Price Administration (February 11, 1943);

Letter from S.D. Strauss to A. Philip Woolfson, Office of Price Administration (February 15, 1943).

Witness:

Simon D. Strauss.

303. The Metals Reserve Company devised procedures for document handling, billing and associated matters, that included opportunity "for inspection of asbestos by the consumers to whom the asbestos is sold . . . ."

Exhibits:

Letter from S.D. Strauss, Assistant Vice President, Metals Reserve Company, to M.E. Miller, Traffic Manager, Metals Reserve Company (December 26, 1942);

Memorandum from S.D. Strauss, Assistant Vice President, Metals Reserve Company, to Mr. Petterson (January 20, 1943).

Witness:

Simon D. Strauss.

304. In late 1943 and during 1944, the Metals Reserve Company began to confront the problem of having had to store rather than sell certain fiber lengths of Rhodesian chrysotile that had limited strategic use, but had been accepted by the government in negotiating for increased production and purchase of other grades of asbestos fiber. In mid-1944, the Metals Reserve Company invited response from Manville and other asbestos product manufacturers to the possible sale of this asbestos fiber at a discount from the ceiling price in order to make it competitive with other grades of asbestos fiber. Several manufacturers responded by indicating the price they thought would be competitive, but Mr. Crosby of Johns-Manville International recommended that the Metals Reserve Company take no action to sell the asbestos fiber at that time as it would "be taking the business away from the Canadians" and "it will interfere with the production of spinning fibres . . . vitally needed in the United States." Manville during this period owned

and operated Canadian asbestos mines whose business would be hurt by a Metals Reserve Company decision to lower the price of its asbestos fiber. Further effort was made, however, to elicit a higher bid from the asbestos industry.

Exhibits:

Letter from Simon D. Strauss to Paul R. Nitze, Office of Economic Warfare (September 11, 1943);

Letter from S.D. Strauss to R.S. Crosby, President, Johns-Manville International Corp. (July 17, 1944);

Letter from E. S. Crosby to S.D. Strauss (July 21, 1944);

Letter from Ernest Muehleck, President, Keasbey & Mattison Company to S. D. Strauss (July 28, 1944);

Letter from S.D. Strauss to Ernest Mehleck. Keasbey & Mattison Company (August 8, 1944);

Letter from S.D. Strauss to H. Dewitt Smith (August 8, 1944).

Witness:

S. D. Strauss.

305. In September of 1943, there was hope that "satisfactory arrangements [could] be made to turn the purchase of African asbestos back to private hands." The greatest anticipated difficulty was the probability that the producers of Rhodesian chrysotile would "be loathe to supply" the quantities of asbestos grades that could be used by the manufacturers without also requiring the government's

agreement to purchase considerable amounts of less desirable grades.

Exhibits:

Letter from Kurt Lowenstein, Industrial Mineral Division, to S. D. Strauss (September 17, 1943).

306. In October of 1943, the Chief of the Cork, Asbestos & Fibrous Glass Division complained to the Metals Reserve Company about a price differential that had been established between sales from ships and sales from government warehouses. The Metal Reserve Company's response noted that "for most consumers the cost of transportation from warehouse would be substantially less than the cost of transportation from shipside--so that the added cost to the consumer [would] be substantially less than the gross margin provided by the price regulation"; and that even smaller companies should be able to avoid any need to purchase from warehouse as the Metals Reserve was receiving shipments one to three times per month, the small companies "could carry a month's stock at a time at their plants without difficulty" and "[i]n many cases it is only lack of willingness to plan ahead or a desire to cut inventory risks to a bare minimum that causes a manufacturer to ask for last-minute allocations out of warehouse, at heavy expense to the government."

Exhibits:

Letter from W. T. Meloy to Mr. Strauss, Metals Reserve Company (October 23, 1943);

Letter from S. D. Strauss to W. T. Meloy (October 27, 1943).

Witness:

Simon D. Strauss.

307. As of mid-December 1943, the War Production Board was

> not recommending any further purchase of Cape Blue asbestos, due to an increase in production in Africa and the fact there are only two consumers in this country, both of whom are in a position to make direct contracts.

(Letter dated Dec. 16, 1943). Since the supply of asbestos fiber had increased and demand for asbestos fiber had declined, the War Production Board thought it best "to permit this fiber to be contracted for by private consumers..." (Letter dated December 8, 1943). The recommendation concerning Rhodesian chrysotile covered only two grades, C & G 1 and C & G 2, of the four grades which had been purchased in 1943.

Exhibits:

Memorandum from S.D. Strauss to Mr. Bridgeman (December 16, 1943);

Memorandum from W. T. Meloy to William Y. Elliot (December 8, 1943).

308. While stating that "the price policy of asbestos fiber, as sold from the Metals Reserve stockpile, was not within the province of the War Production Board," the Director of the War Production Board's Cork, Asbestos & Fibrous Glass Branch suggested in an October 1944 letter to Mr. Strauss of the Metals Reserve Company that he agreed with one of the asbestos product manufacturers (not Manville) that the Metals Reserve Company was asking more than a competitive price for sales of Grade C & G/3 from stockpile. Mr. Strauss responded by reducing the price "at which C & G/3 will be sold to domestic consumers" with the expectation that "this reduction in price [would] permit a more rapid reduction of the present excessive government stock."

Exhibits:

Letter from W. T. Meloy to S.D. Strauss (October 25, 1944);

Letter from S.D. Strauss to Alan M. Bateman (November 4, 1944).

Witness:

Simon D. Strauss.

309. During 1943, 1944 and 1945, Manville and the Metals Reserve Company cooperated to provide Manville with the asbestos fiber it needed. Manville's first sales contract with the Metals Reserve Company for the purchase of asbestos fiber was executed in June of 1943. There were

thirteen additional sales contracts between Metals Reserve and Manville between June of 1943 and November of 1944 and one more sales contract in May of 1945.

Exhibits:

Contract between Metals Reserve Co. and Johns-Manville Corporation (June 11, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (June 29, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (September 25, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (October 14, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (October 15, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (October 22, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (December 9, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (December 27, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (January 21, 1944);

Contract between Metals Reserve Co. and Johns-Manville Corporation (February 10, 1944);

Contract between Metals Reserve Co. and Johns-Manville Corporation (March 7, 1944);

Contract between Metals Reserve Co. and Johns-Manville Corporation (April 4, 1944);

Contract between Metals Reserve Co. and Johns-Manville Corporation (April 28, 1944);

Contract No. MR C-1 S-1666 between Metals Reserve Company and Asbestos Fibre Distributors Division of Johns-Manville Sales Corp. (November 18, 1944);

Contract No. MR C-1 S-2507 between Metals Reserve Company and Asbestos Fibre Distributors Division of Johns-Manville Sales Corp. (May 5, 1945).

310. These contracts between Manville and the Metals Reserve Company were sales contracts. The contracts contain no reservation of title by the government to the asbestos sold. The contracts are replete with language indicating that the Metals Reserve Company was selling the asbestos and Manville was buying the specified material for a price certain: "Metals Reserve Company will sell to you"; "you agree to purchase" "purchase price"; "[e]ach shipment will be considered a separate sale"; "quantities actually shipped to and received by buyer"; and, "seller may, at its option, cancel the sale." Manville officials accepted each of the sales contracts by execution of their signature on the lines designated for the "Buyer." (Emphasis added.)

Exhibits:

Contract between Metals Reserve Co. and Johns-Manville Corporation (June 11, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (June 29, 1943);

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Contract between Metals Reserve Co. and Johns-Manville Corporation (April 4, 1944);

Contract between Metals Reserve Co. and Johns-Manville Corporation (April 28, 1944).

Witnesses:

Simon Strauss;

Harold Sheehan.

311. The agreements between the Metals Reserve Company and Manville involved no promise or warranty by the Metals Reserve Company or the government generally that it would indemnify Manville, or hold Manville harmless, for damages suffered by Manville in its manufacture and sale of asbestos-containing products.

Exhibits:

Contract between Metals Reserve Co. and Johns-Manville Corporation (June 11, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (June 29, 1943);

Contract between Metals Reserve Co. and Johns-Manville Corporation (September 25, 1943);

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Contract No. MR C-1 S-2507 between Metals Reserve Company and Asbestos Fibre Distributors Division of Johns-Manville Sales Corp. (May 5, 1945).

Witnesses:

Simon Strauss;

Harold Sheehan.

312. Manville does not show that any test claimant was exposed to a Manville product produced by using any part

of the asbestos fiber it purchased from the Metals Reserve Company.

Exhibit:

Manville's Revised Pretrial Statement.

IN THE
UNITED STATES CLAIMS COURT

JOHNS-MANVILLE CORPORATION and JOHNS-MANVILLE SALES CORPORATION, Plaintiffs, v. THE UNITED STATES OF AMERICA, Defendant.	Civil No. 465-83C

PRETRIAL STATEMENT OF THE UNITED STATES

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D. MANVILLE'S WWII CONTRACTS WITH THE NAVY AND THE MARITIME COMMISSION PROVIDE NO BASIS FOR RECOVERY IN THIS LITIGATION

(1) During WWII There Were No Navy Policies, No Discussions Between The Parties, And No Shared Understandings Which Could Reasonably Have Lead Manville To Believe That Its Asbestos-Related Losses Were Considered Costs Of Performance Which Would Be Borne by The United States

(a) Manville's Wartime Contracts Were Competitively-Bid Fixed-Price Contracts

2001. Prior to World War II, the Department of the Navy was required in almost all circumstances to purchase supplies pursuant to formal advertising. Under this procedure, the purchasing agency issued Invitations to Bid or similar solicitations spelling out the ground rules for the competition, including the time, date and place for opening of bids. Interested suppliers were required to submit sealed bids which were, in legal contemplation, offers. Bids were publicly opened and evaluated in accordance with the factors articulated in the Invitation. Award was made to the responsive bidder with the lowest price.

Exhibits:

Revised Statutes of the United States, § 3709 (2d ed. 1978);

41 U.S.C. § 5 (1940);

Cibinic & Nash, Federal Procurement Law, Vol. 1, ch.5, at 222-224 (1977);

Office of General Counsel, Bureau of Naval Personnel, Navy Contract Law, ch.2 (April 1949).

Witnesses:

H. Struve Hensel;

John M. Malloy;

C. Bouton McDougal.

(i) During WWII Supplies Were Routinely Purchased By Informal Competitive Bidding

2002. With the commencement of hostilities in Europe in late 1939 and the beginning of military growth in this country, there was a pressing need to develop faster and more flexible contracting procedures. As noted, the Act of June 28, 1940 authorized the Navy to "negotiate" contracts for the "acquisition, construction, repair or alteration of complete naval vessels or aircraft or any portion therefore" and also for "machine tools and other similar equipment." The Act also authorized the use of cost-plus-a-fixed-fee contracts.

Exhibits:

Act of June 28, 1940, Pub. L. No. 671, ch.440, 54 Stat. 676, 677 (1940);

Office of General Counsel, Bureau of Naval Personnel, Navy Contract Law, ch.7 (April 1949).

Witness:

H. Struve Hensel;

John M. Malloy.

2003. The First War powers Act of December 18, 1941 added additional flexibility to contracting procedures by, among other things, removing all requirements for competitive bidding, approving the use of letters of intent, and authorizing the President to contract "without regard to the provisions of law relating to the making, performance, amendment, or modification of contracts whenever he deems such action would facilitate the prosecution of the war...." The Act provided, in part, as follows:

> The President may authorize any department or agency of the Government exercising functions in connection with the prosecution of the war effort, in accordance with regulations prescribed by the President for the protection of the interests of the Government, to enter into contracts and into amendments or modifications of contracts heretofore or hereafter made and to make advance, progress and other payments thereon, without regard to the provisions of law relating to the making, performance, amendment, or modification of contracts whenever he deems such action would facilitate the prosecution of the war,... Provided further, That all acts under the authority of this section shall be made a matter of public record under regulations prescribe by the President and when deemed by him not to be incompatible with the public interest. (Emphasis added).

Exhibit:

> First War Powers Act, 1941, Pub. L. No. 354, 55 Stat. 838, 839 (1941).

2004. On December 27, 1941 President Roosevelt issued Executive Order 9001, authorizing the Secretary of the Navy, the United States Maritime Commission and the

Secretary of War to exercise the powers granted to the President under the First War Powers Act, subject to certain restrictions:

TITLE I

> 1. By virtue of the authority in me vested by the Act of Congress, entitled "An Act to expedite the prosecution of the War effort" approved December 18, 1941, (hereinafter called "the Act") and as President of the United States and Commander-In-Chief of the Army and Navy of the United States, and deeming that such action will facilitate the prosecution of the war, I do hereby order that the War Department, the Navy Department, and the United States Maritime Commission be and they hereby respectively are authorized <u>within the limits of the amounts appropriated therefor</u> to enter into contracts and into amendments or modifications of contracts heretofore or hereafter made, and to make advance, progress, and other payments thereon, without regard to the provisions of law relating to the making, performance, amendment or modification of contracts. (Emphasis added).

<u>Exhibit</u>:

Exec. Order No. 9001, 6 Fed. Reg. 6787 (1941)

2005. On December 28, 1941 the Secretary of the Navy issued an explanatory directive to all Bureaus and Offices of the Navy Department and the Major General Commandant of the Marine Corps regarding "Navy Contracts During the War" in light of the First War Powers Act and Executive Order 9001. The directive provided, in part:

> 4. From and after the date hereof and irrespective of whether letters of intent or more definitive contracts in

respect of the identical subject matter shall be outstanding, the contracting officers shall, within the limits of their cognizance and general authority to make contracts and within the limits of the applicable appropriations, execute and deliver such contracts (including letters of intent), and such amendments and modifications of contracts as may be deemed by them appropriate in accordance with the procedure authorized under the aforesaid Section 201 and Executive Order of December 27, 1941. Such contracts may be made with or without competitive bidding as the respective contracting officers in their discretion shall determine. * * *

* * *

5. The contracting officers are authorized to select such procedures in making contracts as are deemed best fitted to the purchases involved and the needs of the Navy. If procurement is initiated in the same manner as has heretofore been required...the contracting officers may follow all or only such part of the requirements of such statutes as are deemed desireable. All contracts in excess of $500 shall be reduced to writing and signed by the contracting parties.

Exhibit:

Memo to All Bureaus and Offices of the Navy Department, the Major General, U.S. Marine Corps from the Secretary of the Navy (December 28, 1941) reprinted in part at NPD (CCH) ¶¶ 10,501-10,513 at 5311-5313 (December 28, 1941).

2006. On January 9, 1942 the Chief of the Bureau of Supplies and Accounts issued a directive entitled "Purchase Procedure During War" to various Naval activities including supply officers. The directive referred to the First War Powers Act and Executive Order 9001 and provided, in part:

2. The law and executive order of the President supplement and broaden the present authorized methods of procurement. Under this authority procurement may take any form which will accomplish delivery at the time and at the place where it is needed.

3. In many instances the objective may be best accomplished by advertisement for competitive bids as a manner of locating competent suppliers having the supplies available for delivery within the time and at the place needed. Advertisement may be accomplished through telephonic or telegraphic invitations from two or more prospective suppliers, by circular letters, or by the more formal invitations for bids, whichever in the judgment of the procurement officers, will best serve the interests of the Government.

* * *

5. Cost-plus-a-percentage-of-cost contracts are prohibited under the Act and the executive order. Cost-plus-a-fixed-fee contracts, because of the need for the development of an accounting system and financial provisions, shall not be entered into by Field Offices.

* * *

7. A written record will be made of each and every purchase transaction which will include a record of the bids, whether with or without competition, and the reasons for the action when the award is made to other than the low bidder on a competitive bid basis. (emphasis added)

Exhibits:

Memo from Ray Spear to the Fleet, (January 9, 1942);

Memo from Struve Hensel to Admiral Spear (January 7, 1942).

2007. On March 3, 1942 the War Production Board issued Directive No. 2 prescribing procurement by negotiation, rather than formal advertising, as the normal contracting procedure. This negotiation procedure included, where time allowed, the solicitation of competitive bids:

> Provided that where consistent with the required speed of war procurement, notification of the proposed procurement shall be given to qualified possible contractors and quotations secured from them.

Exhibits:

> War Production Board, Directive No. 2, 7 Fed. Reg. 1732 (March 3, 1942).

2008. Subsequently the Bureau of Supplies and Accounts continued to give notice to qualified suppliers where appropriate and to seek quotations from them. When standard or relatively simple items were bought and time permitted, a "Notice of a Navy War Requirement" was circulated to all suitable firms on the bureau's lists. This was the equivalent of a request for bids. Award, however, did not automatically go to the low bidder. Time of delivery was also a consideration. A document entitled "Summary of the Negotiation of Contracts During World War II," dated November 23, 1942, described the procedures as follows:

> (b) When standard or other items which involve relatively simple production problems are required, and the conditions governing a particular procurement are such that time permits the securing of informal written

quotations from capable potential suppliers, procurement may be by the use of the forms, enclosures (a) and (b), and procedure outlined therein, subject to the following exceptions: (1) Whenever the responses to "Notice of a Navy War Requirement," or any other information available to the procurement officer, indicate that more than one firm (other than those that are reserved for the more difficult war production problems) is fully qualified to supply the materials (or services) specified in the time required without plant expansion, the lowest price offered for the items (or services) delivered where required shall be the governing consideration in the selection of the contractor or contractors.

Exhibits:

Bureau of Supplies and Accounts Purchase Division Indoctrination Course, Summary of the Negotiation of Contracts During World War II, by Capt. George F. Yoran (SC) (23 November, 1942);

A Guidebook to War Business, Business Week 33 (June 27, 1942);

Interim Memorandum of Procurement in the Navy Department (March 15, 1943);

"Changes in Purchase Procurement in the Bureau of Supplies and Accounts Since The Emergency" December 5, 1942 (unpublished).

2009. Throughout the remainder of the war, the Bureau of Supplies and Accounts continued to use a form of competitive bidding for the purchase of routine items. Local purchasing activities such as Naval Shipyards likewise used a form of competitive bidding for the purchase of routine items. See ¶ 2008, supra.

Witnesses:

C. Bouton McDougal;

Clyde Barnett;

Charles O. Garcelon.

(ii) Throughout WWII The Bureau Of Supplies And Accounts Routinely Purchased Supplies Using Fixed-Price Contracts

2010. During World War II, the United States Navy primarily used two forms of contracts for the purchase of supplies: fixed-price and cost-plus-a-fixed-fee.

Exhibits

Office of General Counsel, Bureau of Naval Personnel, Navy Contract Law, Ch.2 (April 1949);

Outline of Lecture, War Contracting and War Contracts, 44-45 (September 15, 1943).

2011. Under the fixed price contract, the contractor agreed to furnish designated supplies or services at a specified firm price. Under the cost-plus-a-fixed-fee contract, the Government agreed to reimburse the contractor for the allowable cost of performing the contract, with some allowance for profit. In most cases, Navy cost-reimbursement type contracts provided for the determination and acceptance of costs by the Bureau of Supplies and Accounts, usually in accordance with a statement of cost principles which was specifically designated in the contract. Prior to April 1942, the reimbursability of costs

under Navy cost-type contracts was determined in accordance with Treasury Decision No. 5000. In April 1942 the War and Navy Departments jointly issued a new set of cost determination principles, entitled "Explanation of Principles for Determination of Costs under Government Contracts, War Department-Navy Department," more commonly called the "Green Book."

Exhibits:

Office of General Counsel, Bureau of Naval Personnel, Navy Contract Law, ch.7 (April 1949);

Melvin Rishe, Government Contract Costs, 1st ed., Appendix 3 "T.D. 5000 (§ 26.9) Cost Principles" pp. 404-409; (reproduced from 1940-42 C.B)

Explanation of Principles for Determination of Costs Under Government Contracts, War Department - Navy Department, (April 1942);

Cibinic & Nash, Federal Procurement Law, Vol. 1, Ch. 7, at 412-452 (1977);

Rishe, Government Contract Costs ¶¶s, 3-13 to 3-27 (1983).

Witnesses:

John M. Malloy;

H. Struve Hensel;

Richard G. McClung;

W. John Kenney;

Gilbert J. Ginsburg;

C. Bouton McDougal.

2012. The Secretary of the Navy considered that "some method of fixed price compensation [was] always more satisfactory than provision for compensation on a cost basis or a cost-plus-a-fixed-fee basis." In a directive dated March 20, 1943 he articulated the basis for this conclusion:

> The fixed price method of compensation has advantages which make it more satisfactory than either of the other two methods of compensation (hereinafter collectively referred to as the "cost" method of compensation), even in those cases where the contractor lacks production experience or where other factors require some degree of flexibility in the arrangement for compensation. Contracts providing for compensation of a cost basis present the following problems, among others: control by the Navy Department of the contractor's costs is difficult; the contractor has little or no incentive to reduce costs; the inevitable uncertainties in cost determination give rise to time-consuming controversies which may delay production; the supply of competent accountants available to the Navy is inadequate; and Navy disbursing officers lack assurance that payments by them are definitive and not subject to subsequent question. The Secretary of the Navy hereby finds with respect to contracts other than construction contracts that in general the compensation arrangement which fixes firm prices effective over a relatively short term, is more satisfactory than a cost method of compensation, * * *" (emphasis added)

As a result of these determinations, the Secretary stated that "Existing contracts of the cost type should be converted into fixed price contracts or one of the variations thereof * * * whenever practicable

Exhibits:

Navy Procurement Directive (CCH) ¶¶10,551-10,556 at 5321-22 (March 20, 1943).

Witnesses:

H. Struve Hensel;

John M. Malloy.

2013. Fixed price contracts were commonly used where the costs of the product was readily ascertainable. A typical situation would be where the United States was purchasing a product which was generally produced and available in the economy. Johns-Manville asbestos containing products generally met this criteria. See ¶2011, supra.

Exhibits:

Office of General Counsel, Bureau of Naval Personnel, Navy Contract Law, Ch. 7 at 140 (April 1949);

Investigation of the Progress of the War Effort, 1943: Hearing before the Committee on Naval Affairs, 78th Cong., 1st Sess. 434,535-555 (1943).

Witnesses:

H. Struve Hensel;

C. Bouton McDougal;

George Lockhart;

Willis McCook Miller;

John M. Malloy.

2014. At least two methods were used to initiate fixed-price contracts during World War II. In some cases, the Navy Department would contact contractors whom it believed were capable of performing the type of work or supplying the materials required. The Department would then negotiate and attempt to reach an agreement with the contractor regarding the terms of an agreement. Once the terms were reached, a contract would be drafted reflecting the agreement of the parties. In other cases, the Department would issue a "Request for Tender" or "Invitation to Bid" to contractors believed capable of performing the type of work required. The contractor then responded to the Invitation or Request with an offer. Where the offer met the terms of the request or invitation, the Department determined which bid to accept, prepared an acceptance form and returned it to the contractor. The tender along with the acceptance comprised the contract. Where the offer did not meet the terms of the Invitation or Request, additional negotiations regarding the terms of the contract may have been necessary. As noted in a memorandum entitled "New Contract Forms" dated June 15, 1943:

> In the event that the contractor has made changes in or addition to the Tender which are not acceptable to the contracting officer, or if the changes, even though acceptable, are so extensive and complicated that the Tender and Acceptance together will not make an ineligible contractual document, or if there has been negotiations between the parties subsequent to the submission of the Tender and the contractor has agreed to prices, delivery or other terms

differing from those stated in the Tender, a contract should be prepared ***

Contracts entered into pursuant to Invitations to Bid and Requests for Tender were always fixed price contracts.

Exhibits:

Memorandum from W.B. Young, Chief, Bureau of Supplies and Accounts to Commandants, Naval Districts, et. al. enclosing Standard A Form 102 (June 15, 1943);

Preparation and Signing of Navy Department Contracts by H. Struve Hensel and C. Bouton McDougal at p. 11, 12. (May 18, 1942).

Witnesses:

C. Bouton McDougal;

Clyde Barnett;

Charles O. Garcelon.

(iii) All Of Manville's WWII Sales Of Asbestos-Containing Products Were Pursuant To Fixed-Price Contracts

2015. During World War II, Clyde Barnett served as Chief Clerk in the Government Department of Johns-Manville Sales Corporation, which handled all sales of Manville products to the United States other than those handled on a local basis. Barnett testified, and the available evidence supports his testimony, that all Manville supply contracts with the United States during World War II were fixed price contracts entered into as a result of competitive bidding. See ¶'s 2016-2028, infra.

Exhibits:

Letter from Robert M. Bruskin to Albert Cohen (December 22, 1986);

Memo from Supply Officer to Manager (April 25, 1940);

Memo from Office of Counsel for the Bureau of Supplies and Accounts to Office of Procurement and Material (July 23, 1943);

Navy Inspection, Bureau of Yard and Docks, Contract No. 5326 (May 5 1944);

Memo from Supply Officer to Manager (November 13, 1939);

Memo from Supply Officer to Manager (April 8, 1942);

Memo from Supply Officer to Manager (August 25, 1943);

Memo from Supply Officer to Manager (October 14, 1941);

Mrmo from Supply Officer to Manager (October 14, 1941);

Memo from Supply Office to Manager (September 18, 1940).

Witness:

Clyde Barnett.

2016. The basic contracting procedures were as follows. Manville along with other suppliers would receive three copies of Invitations for Bids or Tenders from the United States. A determination was then made by Manville as to whether or not to bid on the contract. If it was determined that Manville would submit a bid, two copies of the bid would be sent back to the agency that had requested the offer. The agency would then determine which bid to

accept. If Manville's offer was accepted, a signed copy of the offer submitted by Manville would be returned to Manville and would serve as the contract between the parties.

Witness:

Clyde Barnett.

2017. This basic procedure was followed by the Bureau of Supplies and Accounts. Over 85% of the sales Mr. Barnett handled in Manville's Government Department were to the Bureau of Supplies and Accounts. There was a very minor percentage of sales to the Bureau of Yards and Docks and few, if any, sales to the Bureau of Ships.

Witness:

Clyde Barnett.

2018. As a general rule, in purchasing supplies under a fixed-price contract during WWII, the Navy required at least three bids to be submitted before it would accept any of the bids. The award was normally made to the complying bidder with the lowest price.

Witnesses:

Clyde Barnett;

Charles Garcelon.

2019. Mr. Barnett testified that the contract consisted of the "general conditions" and the "specifications". The document returned by the Navy after acceptance was identical to what had been bid on. There were no negotiations regarding the terms of the contracts except in rare instances where the parties discussed a change in the delivery date.

Witness:

Clyde Barnett.

2020. In early 1942, when Mr. Barnett began working for the Government Department, he submitted the form contract which the United States was using to the Manville legal department to determine whether it was acceptable to the company. The form contract was found to be acceptable. The form contract did not change significantly thereafter and during Mr. Barnett's tenure as Chief Clerk, no other government contracts were submitted to the Manville legal department for approval.

Witness:

Clyde Barnett.

2021. The contracting procedure described by Mr. Barnett was virtually identical to the procedure described in a memo dated June 15, 1943 by W.B. Young, Chief of the

Bureau of Supplies and Accounts, entitled "New Contract Forms." That directive provided in part that:

> When used, the Request for Tender should be sent to the prospective supplier or suppliers, in triplicate, attached to a Schedule containing a description of the supplies or services, specifications, the desired deliveries and all applicable contract clauses. Two executed copies of the Tender should be returned by the supplier with the Schedule and clauses attached. If his Tender or any part thereof is to be accepted, the Acceptance Form should be prepared (indicating thereon the supplies to be purchased, the price and any changes or additions made by the contractor in submitting his Tender, which changes or additions are acceptable to the contracting officer) and executed in duplicate by the contracting officer. A contract number in the uniform series should be assigned and one executed copy of the Acceptance should be forwarded to the contractor, comprising his notice of acceptance and, together with his retained copy of the Tender, comprising his signed copy of the contract.

Thus, the Tender plus the Acceptance constituted the contract.

Exhibits:

Directive from Chief, Bureau of Supplies and Accounts entitled "New Contract Forms" (June 15, 1943);

Request for Tender and Schedule on Negotiation, from W.B. Young to Suppliers of Materials (c.1942).

Witness:

Clyde Barnett.

2022. Charles Garcelon, a Manville salesman in the New England Region during World War II, testified that similar competitive bidding procedures were used by the Boston Naval Shipyard in purchasing from Manville. The shipyard solicited bids from contractors using requests for bid or requests for tender. Manville responded by filling out a form supplied by the Navy and submitting its offer. The offers submitted by the various bidders were then opened and awarded at an opening attended by the contractor. Awards were always made to the lowest bidder.

Witness:

Charles Garcelon.

2023. Manville has failed to produce originals or copies of any WWII contracts for the sale of Manville asbestos-containing products for use in government ships. However, three contracts for the sale of other Manville products to the United States during this period have been found, and each is a fixed-price contract. The first is a purchase order issued by the United States Submarine Base at Groton, Connecticut, dated September 5, 1941, for "weathertite sheathing fibre board." The second is a purchase order issued by the Submarine Base at Groton, dated September 16, 1941 for asbestos shingles and "speednuts". The third is a fixed-price contract between the Federal

Works Agency and Manville Sales Corporation for Cement Asbestos Water Pipe, dated April 27, 1942.

Exhibits:

Purchase Order issued to Johns-Manville Co. (September 5, 1941);

Purchase Order issued to Johns-Manville Co. (September 16, 1941);

Contract between Johns-Manville Sales Corporation and Federal Works Agency (April 27, 1942).

Witness:

John M. Malloy.

2024. Although no Manville contracts for the WWII sale of asbestos-containing products for use in government ships have been produced, Navy contracts with two other manufacturers (Ruberoid and Asbestos Manufacturing Company) are available. Each of these is a fixed price contract. See ¶'s 2025, 2026, and 2027 below.

2025. The contract dated October 17, 1944 between the Supply Department at the Philadelphia Navy Yard and The Ruberoid Co. for "Pipe Covering, Thermal Insulation" is a fixed-price contract. Similarly, Contract No. 24601 between the Philadelphia Navy Yard and The Ruberoid Co. is a fixed price contract.

Exhibits:

Contract between The Ruberoid Co. and the Philadelphia Navy Yard (October 17, 1944);

Contract No. 24601 between The Ruberoid Co. and the Philadelphia Navy Yard (1944).

Witness:

John M. Malloy.

2026. There are two other fixed-price contracts between the Bureau of Supplies and The Ruberoid Company. One is a purchase order dated March 23, 1945 for "pipe covering, thermal insulation" to be sent to various Navy Yards. The second is a purchase order dated July 10, 1945 for "pipe covering, thermal insulation" to be sent to various locations including several Navy Yards.

Exhibits:

Contract No. NXsx 96418(P) between The Ruberoid Co. and the Bureau of Supplies and Accounts (March 23, 1945);

Contract No. NXsx-10168 (P) between The Ruberoid Co. and the Bureau of Supplies and Accounts (July 10, 1945).

Witness:

John M. Malloy.

2027. The contract dated April 18, 1945 between Asbestos Manufacturing Company and the Bureau of Supplies and Accounts for "cloth, combination glass and asbestos" to

be sent to various Naval facilities including several Navy Yards is also a fixed-price contract.

Exhibit:

Contract No. NXsx-932 between Asbestos Manufacturing Company and the Bureau of Supplies and Accounts (April 18, 1945).

Witness:

John M. Malloy.

2028. Other documents establish that it was the practice of the Navy Department to purchase asbestos-containing products of the type sold by Johns-Manville on a competitively bid/fixed-price basis. Union Asbestos & Rubber Company was a supplier of asbestos-containing products to the United States during World War II and a competitor of Johns-Manville. According to the "Report on Renegotiation of Government Contracts for the Year Ended December 31, 1943", prepared by the Navy Price Adjustment Board, Union Asbestos & Rubber Company, stated to Federal Renegotiation officials that its "sales to the Government have all been made on the basis of competitive bidding."

Exhibit:

Navy Price Adjustment Board, A Report on Renegotiation of Government Contracts for the Year Ended December 31, 1943 (December 29, 1944).

2029. There is no evidence that during World War II the United States Navy directly purchased asbestos-

containing products for use in government ships using cost-plus-a-fixed-fee or other cost-based contracts.

(b) Manville's WWII Contracts Contained No Express Term Indicating That The United States Would Treat Third-Party Tort Liability Losses As Reimbursable Costs Of Performance

2030. No contract between Johns-Manville and the United States for the sale of asbestos-containing products for use in government ships during World War II contained a written provision which stated that the United States would reimburse Johns-Manville for third-party personal injury liabilities or that liabilities would be considered reimbursable costs of performance.

2031. To the extent that the terms of Manville's asbestos supply contracts can be determined, it must be on the basis of:

(a) contracts for similar products entered into between the United States and other manufacturers of asbestos-containing products (e.g., the Ruberoid contracts and the contract with Asbestos Manufacturing Company);

(b) contracts which do exist between Manville and the United States for similar types of products (e.g., the purchase orders issued by the United States Submarine Base at Groton and the contract with the Federal Works Agency);

(c) form contracts which are available from the period;

(d) guidelines contained in the Navy Procurement Directives and other World War II directives and memoranda, including the June 15, 1943 directive relating to "New Contract Forms" and the March 16, 1944 directive entitled "Uniform General Provisions in Fixed-Price Supply Contracts;" and

(e) the testimony of contemporary witnesses who handled Manville's contracts with the United States (e.g. Clyde Barnett and Charles Garcelon).

None of these witnesses ever heard of and none of these contracts, contract forms, guidelines, directives, or memoranda contain a written provision stating that the United States would reimburse Manville for third-party personal injury liability or that such liability would be considered a reimbursable cost of performance. See paragraphs 2023, 2025, 2026, 2027 supra.

Exhibits:

Manvile Proposed Findings of Fact ¶'s 582, 584, 587;

Directive from Chief, Bureau of Supplies and Accounts entitled "New Contract Forms" (June 15, 1943);

Navy Procurement Directives (CCH) ¶11,201 (March 16, 1944);

Navy Procurement Directives (CCH. 1943);

Navy Procurement Directive (CCH. 1945).

Witnesses:

John Malloy;

Gilbert J. Ginsburg;

H. Struve Hensel;

Richard G. McClung;

W. John Kenney.

2032. Navy WWII fixed-price supply contracts were intended to be integrated. For example, the Asbestos Manufacturing Company contract referred to by Manville in its proposed findings provides:

> The rights and obligations of the parties to this contract shall be subject to and governed by these General Provisions, the Schedule and the current edition of "General Specifications for the Inspection of Material" issued by the Navy Department which is hereby incorporated in this contract. No charges shall be allowed or paid except in accordance with the express terms of this contract or a written amendment hereof. (emphasis added).

The Ruberoid contract dated October 17, 1944 provided:

> The Contractor shall furnish and deliver all supplies or services covered by the items listed, for the consideration stated opposite each item or each lot, in strict accordance with the specifications, schedules, and drawings, all of which, together with "General Specifications for Inspection of Material" issued by the Navy Department July 1, 1941, to the extent not inconsistent with the express terms hereof, shall form a part of this order.

The Ruberoid contract dated March 23, 1945 states that "This purchase order is issued pursuant to the provisions of the First War Powers Act, 1941, and contains all the terms and conditions of this negotiated purchase" (emphasis added). A similar provision is contained in the July 10, 1945 Ruberoid contract. See ¶s 2025 and 2026, supra.

Exhibit:

Manville's Proposed finding of fact ¶589.

Witnesses:

H. Struve Hensel;

John M. Malloy;

Gilbert J. Ginsburg.

(c) During WWII The Navy Had No Policy Of "Self-Insurance" Or "Assumption Of Risk" Which Applied To Third-Party Personal Injuries Under Fixed-Price Supply Contracts

2033. The United States Navy never adopted a policy of assumption of risk under which it agreed to reimburse fixed-price contractors for their uninsured or under-insured third party liabilities. The United States Navy never limited the extent to which insurance costs could be incorporated into the price in the context of fixed-price supply contracts and never undertook an obligation in exchange to reimburse such fixed-price contractors for losses due to liabilities which were not insured. Nor was there ever a Navy policy or understanding that third-party personal injury liabilities would be a reimbursable cost of performing the contract. Although the United States Navy

did establish an insurance program during World War II under which it assumed risks with respect to certain liabilities under certain forms of contracts, the policy was never intended to and did not apply to fixed-price supply contracts. See ¶s 2034-2068. infra.

Exhibit:

Office of General Counsel, Bureau of Naval Personnel Navy Contract Law, at 221-224. (April 1949).

Witnesses:

John Vogel;

Frank Sartore;

Russel Townsend;

Paul Stickler;

C. Bouton McDougal;

George Lockhart;

Willis McCook Miller;

Charles Stockton;

John M. Malloy;

Gilbert J. Ginsburg.

2034. At the beginning of the war the Navy Department had no means of coordinating insurance procurement or controlling insurance costs. Each Bureau concerned with insurance dealt with these problems on its own. The Cost Inspection Service was also involved in supervision of such costs.

Exhibit:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Witnesses:

Paul Stickler;

John Vogel;

Russel Townsend;

Frank Sartore.

2035. By directive dated May 6, 1942 a Central Insurance Division in the Office of Procurement and Material was established. The directive provided:

1. The enormous increase in placing of contracts during the past year and the resultant need for a uniform insurance program makes necessary the coordination of insurance procurement for the Navy Department.

2. An Insurance Division has therefore been established in the Office of Procurement and Material. Such Division will formulate uniform insurance procurement policies and procedure for the Navy Department and supervise their execution pursuant to such administrative instructions as may be issued by the Chief of the Office of Procurement and Material.

Exhibits:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945);

The Establishment of a Central Insurance Division, Directive by Forrestal (May 6, 1942). NPD (CCH) ¶¶ 12,701-12,702;

Interim Memorandum on Procurement in the Navy Department (undated).

Witnesses:

Paul Stickler;

John Vogel;

Russel Townsend;

Frank Sartore.

2036. Thereafter, the Insurance Division was engaged in formulating uniform policies and procedures for the Navy Department. "These policies and procedures [were] announced from time to time in Directives of the Secretary of the Navy and Circular Letters of the Office of Procurement and Material * * *" These directives and circular letters were published in the Navy Procurement Directives. The nature and extent of the Navy insurance program can therefore best be determined by evaluating those directives and circular letters. None of the directives or circulars state or suggest that the United States Navy agreed to reimburse fixed-price supply contractors for their third-party tort liabilities to the United States.

Exhibit:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Witnesses:

Paul Stickler;

Richard G. McClung

John Vogel;

W. John Kenney;

Frank Sartore;

Russel Townsend.

2037. The nature and extent of risks assumed under the Navy insurance program depended on the type of contract. For example, the program treated insurance for loss or damage to government owned property differently from third-party liability. The former did apply, in certain instances, in fixed-price contracts. Third-party liability was never assumed under contracts originating as fixed-price supply contracts. The program can best be understood by an examination of what action the Navy took with regard to particular forms of insurance. An examination of the program demonstrates that where action was taken, it was done expressly through written directives or circulars and written contract provisions were invariably inserted where the policy was to be implemented. See ¶'s 2038-2068, infra.

Exhibits:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945);

Naval Procurement Directives (CCH) "Insurance" §12,701 et. seq. at 7001-7500 (1942);

Letter from H. Struve Hensel to Walter P. Lukens (April 1, 1971);

Letter from H. Struve Hensel to J. Morton Turner (August 13, 1970);

Letter from Robert W. McMillan to Thomas L. Kane (September 13, 1951);

Memorandum entitled "Product Liability Insurance and Indemnifying Agreements from the Government";

Letter from H. Struve Hensel to Charles S. Thomas (March 31, 1971);

Letter from H. Struve Hensel to John L. Endicott (August 20, 1970);

Outline of Lecture, War Contracting and War Contracts (September 15, 1943);

Letter from H. Struve Hensel to Morgan W. Lewis, Jr. (August 13, 1970);

Letter from H. Struve Hensel to John L. Endicott (July 31, 1970);

Letter from Patrick H. Hodgson to H. Struve Hensel (July 6, 1970);

Letter from H. Struve Hensel to Patrick Hodgson (July 10, 1970);

Letter from Patrick Hodgson to H. Struve Hensel (July 23, 1970);

Letter from H. Struve Hensel to Gerald Lynch (September 1, 1970);

Letter from H. Struve Hensel to Fredric H. Sturdy (March 31, 1970);

Letter from H. Struve Hensel to John L. Endicott (August 18, 1970);

Letter from H. Struve Hensel to Gerald Lynch (March 28, 1969);

Motion for Summary Judgment; Statement of Reasons and Memorandum of Points and Authorities and Affidavits in Support Thereof. Commonwealth of

Australia v. Lockheed Aircraft Corp. No. 69-1623-WPG (July 29, 1971);

Opposition to Defendant's Motion for Summary Judgment, Notice of Motion for Partial Summary Judgment; Affidavits thereon; Memoranda and Points and Authorities, No. 69-1623-WPG (October 7, 1971).

Witnesses:

John M. Malloy;

H. Struve Hensel.

2038. Early in the War, concerns were raised concerning property insurance and casualty insurance (including workmen's compensation and employer's liability) under cost-based contracts. According to the History of the Insurance Division:

> Under such contracts, the contractor was reimbursed by the Government for the reasonable cost to him of carrying out his contract, including the cost of all insurance which he may be required, by statute or otherwise, to carry in connection with the contract, and of all uninsured losses arising out of liability assumed by the Government under the contract.

Exhibits

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945);

Navy Appropriation Bill for 1942, 1941: Hearings before the House Subcommittee of the Committee on Appropriations, 77th Cong., 1st Sess. (February 3, 1941) (Statement of Frank Knox, Secretary of the Navy);

Memo from Judge Advocate General to Secretary of Navy (April 18, 1941).

2039. On October 16, 1942, the Secretary of the Navy issued a directive implementing the Navy assumption of risk policy. The directive stated, in part:

> In order to effectuate the policy as to the assumption by the Government of the risk of loss of or damage to Government-owned property and certain liability to third persons arising out of the performance of Navy contracts, set forth in references (a),(b),(c) and (d), the Secretary hereby approves the use of contract provisions conforming substantially to the language of the provisions set forth in Enclosure (A) in Navy contracts for supplies on a cost-plus-a-fixed-fee basis.

Reference (a), dealt with War Damage Insurance, Reference (b), dealt with Insurance against Damage to Government-owned Property; Reference (c), dealt with Builder's Risk Insurance and Reference (d), dealt with Casualty Insurance and the War Projects Insurance Rating Plan. None of the references or enclosures dealt with assumption of risks of third party liabilities under fixed-price contracts.

Exhibits:

> Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy Dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711;
>
> Insurance Circular Letter No. 2 from Chief of Office of Procurement and Material to Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,801 (July 1, 1942);
>
> Insurance Circular Letter No. 330-3 from Chief of Office of Procurement and Material to the Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,811 (August 6, 1942);

Insurance Circular Letter No. 330-4 from Chief of Office of Procurement and Material to the Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,821 (September 26, 1942);

Insurance Circular Letter No. 330-6 from Chief of Office of Procurement and Material to the Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,841 (September 4, 1942).

Witnesses:

Richard G. McClung;

W. John Kenney;

H. Struve Hensel.

(i) Risk of Loss of or Damage to Government-Owned Property

2040. Prior to World War II, the established policy of the United States Government was not to insure itself against the risk of loss of or damage to government property. Thus, the United States did not procure insurance against such risks. However, in order to protect its interests in government owned property in the hands of contractors, the United States required contractors to maintain insurance against loss of or damage to the property.

Exhibits:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945);

Memo from Judge Advocate General to Secretary of The Navy (April 18, 1941);

Memorandum from R.G. McClung to H. Struve Hensel (Aug. 6, 1942);

Memorandum from R.G. McClung to H. Struve Hensel (Sept. 8, 1942);

Memorandum from R.G. McClung to H. Struve Hensel (Nov. 12, 1942);

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy Dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711 et. seq.;

Insurance Circular Letter No. 330-3 from Chief of Office of Procurement and Material to the Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,811 et. seq. (August 6, 1942).

2041. On August 6, 1942 the Chief of Procurement and Material issued Insurance Circular No. 3 in which the Navy set out a policy of:

> assuming the risk of loss of or damage to Government-owned property * * * as are normally covered by the following types of property insurance: fire, windstorm, earthquake, hail, explosion, riot, civil commotion, vandalism, malicious mischief, smoke damage, vehicle damage, aircraft damage, transportation, aircraft flight and crash insurance. Such list is indicative of the hazards assumed but is not all inclusive.

The directive required that "existing contracts shall be adjusted * * * to eliminate requirements that contractors procure insurance of the types described * * * and to relieve the contractor of responsibility for loss of or damage to Government-owned property in its custody or control." The directive also stated that "standardized contract forms now containing provisions requiring insurance

of Government-owned property will be revised in accordance with the principles set forth above." The circular specifically informed contracting officers that compliance with the instructions may result:

> in a return of unearned insurance premiums or a savings in expenditures for insurance which were included in the contract price. Contracting Offices, Cost Inspectors and Navy Auditors should take proper steps to recover for the Government the amounts of such savings.

Exhibit:

> Insurance Circular Letter No. 330-3 from Chief of Office of Procurement and Material to the Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,811 et. seq. (August 6, 1942).

2042. On October 16, 1942, the Secretary of the Navy issued a directive in which, he approved the use of "contract provisions conforming substantially to the language of the provisions set forth in Enclosure (A) in Navy contracts for supplies on a cost-plus-a-fixed-fee basis" in order "to effectuate the policy as to the assumption by the Government of the risk of loss of or damage to Government-owned property * * *" Enclosure A, in part, provided:

> ARTICLE __. PROPERTY LOSS OR DAMAGE. (a) The government has requested that the contractor not carry, or incur the expense of, any insurance against any form of loss of or damage to equipment or materials furnished by the Government hereunder, or any property to which the Government has taken and continues to hold title hereunder, and no

reimbursement will be allowed for such insurance premium expense.

(b) In view of the foregoing, the Government assumes the risk of loss of or damage to such property, whether or not caused by the negligence of the contractor, its agents, * * *

Exhibits:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy Dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711;

History of Insurance Division. Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Witnesses:

W. John Kenney;

Richard G. McClung.

2043. Insurance Circular No. 3 and the October 16, 1942 Directive reveal that when the United States Navy adopted a policy of assumption of risk of damage to government-owned property in cost-plus contracts, it issued directives and/or circulars setting forth the policy and contract language was inserted in the relevant contracts.

Exhibits:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy Dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711;

Insurance Circular Letter No. 330-3 from Chief of Office of Procurement and Material to the Chief of

the Bureaus et al., reprinted in part at NPD (CCH) ¶12,811 (August 6, 1942);

Letter from N.W. Gokey (April 1, 1944).

Witnesses:

Richard G. McClung;

W. John Kenney;

John M. Malloy.

2044. Initially the Navy policy was that "in general, it [would] not take the risk of loss with respect to Government-owned property while in the possession of subcontractors * * *" (emphasis added). However, in April, 1943, the Navy extended the policy:

> to cost-plus-fixed-fee subcontracts made with cost-plus-fixed-fee contractors with the Navy Department, whenever the particular circumstances are such that in the judgment of the contracting officer and the Insurance Division of the Office of Procurement and Material such action will benefit the Government. In such event, the Navy contract shall require the insertion in cost-plus-fixed-fee subcontracts thereunder of provisions conforming in principle to the provisions approved by references (a) for use in cost-plus-fixed-fee Navy contracts. (emphasis added).

Thus, when the Navy extended the policy to cost-plus subcontractors, it did so in writing and required insertion of specific contract language.

Exhibits:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711;

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Navy Procurement Directives (CCH) ¶¶ 12751-12752 (April 6, 1943).

Witnesses:

W. John Kenney;

Richard G. McClung;

John M. Malloy.

2045. The October 16, 1942 directive also contained two clauses relating to property insurance which were approved for use in fixed-price contracts. Enclosure (C), entitled "('Fixed-Price Contract')," provided:

> Section _____ Insurance: in the event that any partial or advance payments are made to the contractor and in the event that the contractor shall procure or maintain insurance upon any materials * * * upon which a lien exists in favor of the Government pursuant to the terms of this contract, the policy or policies shall contain a loss payable clause making losses payable to the Secretary of the Navy or order. Any payments thereunder shall inure to the benefit of the Government to the extent of any loss suffered by the Government and to the Contractor as to any remaining balance. The foregoing provisions shall not be deemed to require that the contractor procure or maintain any such insurance.

This clause demonstrates that fixed-price contractors were permitted to procure or maintain insurance. Since under fixed-price contracts it was up to the contractor to determine the nature or extent of insurance coverage he procured, nothing in the clause either prohibited or required that the fixed-price contractor maintain insurance. Nothing in the clause provided that the United States would assume the fixed-price contractor's risks against third party liabilities.

Exhibit:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711.

Witness:

John M. Malloy.

2046. On October 16, 1942, the Secretary of the Navy also approved the use of an insurance term in fixed-price contracts under which the Government was to furnish material for use in the performance of the contract. This term provided that title to such property would remain in the Government and that the fixed-price contractor should not take out insurance for the risk of loss of or damage to such property. The United States, in turn, assumed "all risk of loss of or damage to the Government-Furnished Material...." Thus, where the Navy had a policy of assuming the risk of damage to government-furnished property in fixed

price contracts, it set the policy forth in a directive and it required that appropriate implementing language be inserted in the fixed-price contract.

Exhibits:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy Dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711;

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Contract between Bureau of Ships and General Aniline and Film Corporations (April 11, 1945);

Contract between Bureau of Ships and Bethlehem Steel Corp. (November 15, 1945);

Contract between Bureau of Ships and Johns-Manville Corporation (June 6, 1951).

Witness:

John M. Malloy.

2047. The Insurance Circulars and the Directives demonstrate that in each case where the Navy assumed the risks of loss of or damage to government owned property, a directive or circular was prepared setting forth the policy and an actual contract clause was drafted and required to be inserted in the contract. See paragraphs 2041-2046 supra.

Exhibits:

Insurance Circular Letter No. 330-4 from Chief of Office of Procurement and Material to the Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶12,821 (September 26, 1942);

Insurance Circular Letter No. 8 from Chief of Office of Procurement and Material to Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶¶12,871-12, 872 (January 5, 1943);

Insurance Circular Letter No. 14 from Chief of Office of Procurement and Material to Chief of the Bureaus et al., reprinted in part at NPD (CCH) ¶¶12,946 (February 16, 1944);

Memorandum from F.J. Wille (October 27, 1944);

Insurance Circular Letter No. 16 from Chief of Office of Procurement and Material to Chief of the Bureaus et al., (January 23, 1945);

Contract Nobs 1062 between the United States and St. Louis Shipbuilding and Steel (May 3, 1943);

Contract Nobs 841 between the United States and the Dravo Corporation (November 2, 1942).

Witnesses:

W. John Kenney;

Richard McClung;

John M. Malloy;

Gilbert J. Ginsburg.

(ii) Casualty Insurance

2048. By the commencement of World War II, employers in most states were required by statute to provide Workmen's Compensation and Employer's Liability Coverage. In addition, employers needed protection against their common law liabilities to third persons for personal injuries or property damages. Under cost-plus-fixed-fee contracts, the United States generally agreed to reimburse contractors for the costs of such insurance.

Exhibit:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

2049. In April, 1941, the Judge Advocate General of the Navy expressed concern regarding the costs of such insurance under cost-plus-fixed-fee contracts.

> In some states, like Texas, the Government has no choice in this matter as contractors are required by law to carry certain kinds of insurance, including workmen's compensation and employer's liability. Therefore, unless contractors and their employees are given a more definite status as Government personnel (which might be possible under existing legislation), the Government must continue to bear the expense of insurance on national defense projects in certain states. However, even in those states the contractor could be directed to comply with the minimum requirements of local statutes by taking out insurance under an assessmnet plan, whereby the Government might in effect largely assume the risks of loss, which would result in substantial savings in its cost of insurance.

Exhibit:

Memorandum from Judge Advocate General to Secretary of the Navy (April 16, 1941).

2050. In order to provide this insurance on the most economical basis possible consistent with sound protection, the Navy Department, in 1942, decided to use the services of existing casualty insurance companies through

the War Projects Insurance Rating Plan (WPIRP) in cost-plus-fixed-fee contracts.

Exhibits:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945);

Insurance Circular Letter No. 6 reprinted in part at NPD (CCH) ¶ 17,841-12,857 (September 4, 1942);

Outline of Lecture War Contracting and War Contracts (September 15, 1943).

Witnesses:

John Vogel;

Paul Stickler;

Frank Sartore;

Russell Townsend.

2051. The WPIRP applied generally to Workmen's Compensation, Employers' Liability, Automobile, and General Bodily Injury and Property Damage Liability. The automobile and general liability coverages were written only in limits of liability considered adequate for all but the rare and exceptional occurrence, the government assuming the uninsured liability to the contractor in excess of the policy limits. For the other types of insurance, coverage was provided on a retrospective rating basis under which the premium was not finally adjusted until after the insurance had been terminated and was largely a function of actual

losses. The cost-plus contractor was reimbursed for the costs of the premiums. There was a cost savings to the Navy based primarily on the difference between the manual rates and the actual experience.

Exhibits:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945);

Insurance Circular Letter No. 330-13 from Chief of Office of Procurement and Material to Chiefs of Bureaus, et al. reprinted in part at NPD (CCH) ¶ 12,931 (October 13, 1943);

Manual of Instruction for Purchase and Administration of Insurance on Navy Department Contracts; by Insurance Division of the Office of Procurement and Material (August 15, 1943).

Witnesses:

John Vogel;

Russel Townsend;

Frank Sartore;

Paul Stickler.

2052. Initially the War Projects Insurance Rating Plan applied only to cost-plus-fixed-fee contracts. However, with the adoption by the Navy Department of the incentive price form of contract, the policy was made available to contractors converting from the cost-plus-fixed fee to the incentive form of contract.

Exhibit:

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Witness:

W. John Kenney.

2053. By Insurance Circular Letter No. 6 dated September 4, 1942, the Chief of Procurement and Material instructed contracting officers "to advise contractors under whose contracts the cost of such insurance is a direct item of expense to the Government by reason of contract reimbursement agreements, to adjust their casualty insurance in accordance with such instructions." The letter further provided that:

> Formal amendments to the subject contract or contracts are being prepared which are designed to effect the insurance program set forth herein and in enclosure (A), and to relieve you of the responsibility for loss of or damage to Government-owned property and for third-party liability which, in accordance with said program, will be assumed by the Government. These amendments will be forwarded for your approval in the immediate future.

Subsequently, the contracts were amended. Thus, here too the Navy set forth its assumption of risk policy in writing and implemented the policy through written contract provisions.

Exhibits:

Insurance Circular Letter No. 6 , reprinted in part at NPD (CCH) ¶ 12,841-12, 857 (September 4, 1943).

Letter from Navy re: "Insurance under Navy Type Contracts with the Bureau of Ships for Shipbuilding, Ship-Repair or Industrial Facilities" (October 1, 1942);

Memo from F. J. Wille (October 27, 1944)

2054. The October 1, 1942 letter demonstrates that the plan did not apply to fixed-price contracts. It noted:

> If use of such plan seems impracticable because of * * * commingling of the operations under contracts providing for reimbursement of the cost of such insurance with other operations under fixed-price or private contracts * * * the Contractor will promptly advise the Office of Procurement and Material (Insurance Division) of its reasons for not using such Rating Plan.

Exhibit:

> Letter from the Navy Department, Bureau of Ships Re: Insurance under Navy type contract (October 1, 1942).

2055. On October 16, 1942, the Secretary of the Navy, "in order to effectuate the policy as to the assumption by the Government of * * * certain liabilities to third persons arising out of the performance of Navy contracts," approved "the use of contract provisions conforming substantially to the language of the provisions set forth in Enclosure (A) in Navy contracts for supplies on a cost-plus-a-fixed-fee basis." The Article set forth in Enclosure (A) consisted of three parts. Section (a)

required that the contractor procure insurance as required by the Department. Section (b) expressly provided that the contractor would be reimbursed for the costs of such insurance and, subject to certain restrictions, for the uninsured liabilities in excess of the limits specified. Section (c) set forth notice requirements which had to be met in order to obtain reimbursement. The clause provided:

> ARTICLE ____. INSURANCE - LIABILITY TO THIRD PERSONS. (a) The contractor shall procure and thereafter maintain workmen's compensation, employer's liability, and bodily injury liability insurance, with respect to work done under this contract, and such other liability insurance with respect to work done under this contract as the Department may from time to time require or approve. All such insurance shall be in such form, in such amounts, for such periods of time, and with such insurers, as the Department may from time to time require or approve.
>
> (b) The contractor shall be reimbursed (1) for the cost of such insurance of the character described in paragraph (a) of this Article as may be required or approved by the Department, (2) for the portion allocable to this contract of the reasonable cost of insurance covering the contractor's property or property for which the contractor is responsible to someone other than the Government and which is used or to be used in the performance of this contract, and (3) for liabilities to third persons for loss of or damage to property, death or bodily injury, not compensated by insurance or otherwise, arising out of the performance of this contract, whether or not caused by the negligence of the contractor, its agents, servants, or employees, provided such liabilities are represented by final judgments or by settlements approved in writing by the Department, and expenses incidental to such liabilities, except liabilities (i) for which the contractor is otherwise responsible under the express terms of this contract or (ii) with respect to which the contractor has failed to insure as required or approved by the Department, or (iii) which result from willful misconduct or lack of good faith on the part of any of the contractor's directors, officers or of any of its other representatives having supervision or direction of all or substantially all of the contractor's business or all of substantially all of

any plant used by the contractor in the performance of this contract.

(c) The contractor shall give the Department or its representative immediate notice of any suit or action filed, or any claim made, against the contractor arising out of the performance of this contract, the cost and expense of which is reimbursable to the contractor under the provisions of this contract, and the risk of which is then uninsured or in which the amount claimed exceeds the amount of insurance coverage. The contractor shall furnish immediately to the Department copies of all pertinent papers received by the contractor. If the amount of the liability claimed exceeds the amount of insurance coverage, the contractor shall authorize representatives of the Government to collaborate with counsel for the insurance carrier, if any, in settling or defending such claim. If the liability is not insured, the contractor shall, if required by the Department, authorize representatives of the Government to settle or defend any such claim and to represent the contractor in or take charge of any litigation in connection therewith.

A similar clause was also prepared for facilities contracts and was set forth in Enclosure (B) of the Directive. No similar clause was included for fixed-price contracts.

Exhibits:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711;

Insurance Division, Office of Procurement and Material, Navy Department, History of the Purchase and Administration of Insurance on Navy Department Contracts During World War II. (1945).

Witnesses:

H. Struve Hensel;

W. John Kenney;

Richard G. McClung.

2056. Under the "Insurance-Liability to Third Persons" clause, in order for the contractor to recover for liabilities to third persons for death or bodily injury he was required to show, that the loss: (i) was "not compensated by insurance or otherwise"; (ii) arose "out of the performance" of the contract; (iii) was "represented by final judgments or by settlements approved in writing" by the United States; (iv) did not "result from willful misconduct or lack of good faith" by the contractor, and (v) was preceded by notice to the United States of the litigation and an offer to allow the United States to participate in the defense.

Exhibit:

Memo from Secretary of the Navy to All Bureaus, Offices and Boards of the Navy dept., et al. (October 16, 1942), reprinted in part at NPD (CCH) ¶12,711.

Witnesses:

W. John Kenney;

Richard G. McClung;

John M. Malloy.

2057. On July 19, 1943 a directive was issued by the Secretary of the Navy setting out the procedures for handling "Reimbursement under Navy contracts Providing for Assumption by the Government of Risk of Loss of or Damage to Government-Owned Property and of Liability to Third Persons." These procedures covered all claims by

contractors for reimbursement for third party liabilities and only applied where the contract contained an express written insurance provision. The directive specifically noted:

> Throughout this directive it will be understood that this directive deals only with the cases of loss of or damage to Government-owned property and liability to third persons not compensated for by insurance or otherwise and arising under contracts containing the provisions approved under references (a) [the October 16, 1942 directive] and (b)[the April 6, 1943 directive] or provisions similar thereto. (emphasis added).

It was the Navy's intent to assume risks of liability to third persons only pursuant to written contract provisions. The directive further delegated to the Office of Procurement and Material the authority to determine whether the government had assumed the risks under particular contracts. This authority was in turn delegated to the Insurance Division. The Insurance Division made its determination by reviewing the contract terms. The Insurance Division would approve claims only if the written contract contained terms stating that the Government had assumed such risks.

Exhibits:

Navy Procurement Directive (CCH) ¶ 12,761 (July 19, 1943).

Witnesses:

John Vogel;

Paul Stickler;

Russel Townsend;

H. Struve Hensel;

W. John Kenney;

Richard McClung;

C. Bouton McDougal;

George Lockhart;

Charles Stockton;

Frank Sartore.

2058. In October, 1943 the Chief of Procurement and Material issued Insurance Circular 13 regarding the "Manual of Instructions for Purchase and Administration of Insurance on Navy Department Contracts." The circular noted that "copies of the subject manual are being furnished to Navy cost-plus-a-fixed-fee contractors * * *." and that "[i]t is the intent expressed in true-cost and CPFF contracts that allowable costs of and certain risks attending the work undertaken by contractors are to be assumed by the Government." (emphasis added) The document contains no reference to any policy of assumption of risk of third party liability under fixed-price prime contracts.

Exhibits:

Insurance circular Letter No. 330-13 from Chief of Office of Procurement and Material to Chiefs of Bureaus, et al., reprinted in part at NPD (CCH) ¶12,931 (October 13, 1943);

Manual of Instruction for Purchase and Administration of Insurance on Navy Department Contracts, by Insurance Division of the Office of Procurement and Material (August 15, 1943).

2059. The Manual stated that the Navy did permit extension of the cost-based contractors' coverage to fixed-price subcontracts let by the cost or cost-plus contractor but stated that "Not only the prime contractor's but also the subcontractor's contracts should clearly set forth the basis for such insurance arrangements." (Emphasis Added) The Manual also stated:

> 90.31 Careful selection should be made of those subcontracts which are to be negotiated on an ex-insurance basis. Those subcontracts requiring only a delivery or supervisory labor function to be performed at the site should not be negotiated ex-insurance since there is not sufficient premium involved to affect any substantial saving. (emphasis added).

The Navy Insurance Plan described in the Manual was not intended to apply to suppliers merely making deliveries to the site. Thus, the plan did not apply to companies such as Manville which merely supplied asbestos-containing products.

Exhibits:

> "Manual of Instruction for Purchase and Administration of Insurance on Navy Department Contracts" by Insurance Division of the Office of Procurement and Material (August 15, 1943).
>
> Letter from L.F. Beck to A.O. Smith (August 29, 1942).

Witnesses:

> Frank Sartore;
>
> Russell Townsend;
>
> John Vogel;
>
> Paul Stickler;

John M. Malloy.

2060. For example, at Consolidated Steel's Shipyard, in Orange, Texas, most of the work installing asbestos-containing insulation products was handled by a subcontractor, Asbestos & Magnesia Materials Company (A&M), which performed the work on a fixed-price basis. A&M purchased its product on a fixed price basis from manufacturers, primarily Manville. Since Manville was merely a supplier to an installer working for a private shipbuilder, the United States had no policy under which it agreed to indemnify Manville for its third party liability. Certainly none of the contracts between Asbestos & Magnesia Materials Company and Manville provided that the United States would assume the third party liability of Manville Corporation. Similarly, Manville was merely a supplier of products to the Bethlehem, Fore River shipyard.

Exhibits:

See ¶¶ 2048-2059, Supra.

Witnesses:

John Dragisic;

Charles O. Garcelon;

Walter Odenkirk;

John M. Malloy.

2061. A memorandum dated May 12, 1944 from S.F. Procopio, Chief of the Insurance Division confirmed that the assumption of risk for third-party liability did not generally apply to fixed-price subcontractors.

> 2. The position of the Insurance Division with respect to subcontracts is as follows:
>
> (a) Fixed price subcontracts, any part of which are performed away from the prime contractor's premises, should contain no assumption of risk by the Government with respect to any materials whether owned by the Government or otherwise.
>
> (b) Fixed price subcontracts performed entirely on the premise of the prime contractor may contain an assumption of risk by the Government, only, however, with respect to Government-furnished material. The phraseology of this assumption should follow the standard Government-furnished material clause established for prime fixed price contracts and as it appears in enclosure (D) of reference (a);
>
> * * *
>
> It should also be stated that fixed price contracts need not require that any particular form or forms of insurance be carried by the subcontractor. Such subcontracts should be entirely silent on the subject of insurance, for it is intended that the subcontractor will perform in accordance with the requirements of the subcontract at the agreed price (emphasis added).

Exhibits:

> Memorandum from S.F. Procopio to Chief, Bureau of Ships (May 12, 1944).

2062. A memorandum from a Bureau of Ships contracting officer dated 13 June, 1944 provided:

1. * * * The term "subcontract" as used in the contracts and in this letter includes, unless otherwise specified, agreements of all kinds, whether in the form of purchase orders or otherwise, and all amendments of such agreements.

* * *

(f) Insurance: The policy of the Department is that, in general it will not assume the risk of loss of or damage to property title to which is in the Government while such property is in the possession of subcontractors, or assume liabilities of subcontractors to third parties. Subcontracts should therefore, in general, provide for assumption of such risks and liabilities by subcontractors, who may protect themselves by insurance. However, with respect to subcontracts performed entirely at the yards of prime contractors it will be permissible to incorporate assumption of risk and liability provisions similar to those appearing in the prime contracts, except that such subcontracts of the fixed price type shall not contain any assumption of liability to third persons. (emphasis added)

Exhibit:

Memorandum from N. W. Gokey (June 13, 1944).

2063. In a letter dated May 5, 1945 to Cramp Shipbuilding in Philadelphia, Pa. the Director of Wartime Insurance for the War Shipping Administration stated:

The Government does not provide any Third Party Liability insurance and the contractor is expected to arrange commercial insurance against such liability with respect to both privately owned and Government owned vessels on which work is performed under this form of contract.

Exhibit:

Letter from E.A. Bloomquist to Cramp Shipbuilding Company (May 5, 1943).

2064. Other documents demonstrate that the War Projects Insurance Rating Plan did not apply to fixed-price contracts. In testimony before Congress on April 4, 1945, Lt. Comdr. S.F. Procopio, Chief, Insurance Division, Office of Procurement and Material, Navy Department testified as follows regarding the War Projects Insurance Rating Plan:

> Mr. Hebert: What do you mean by "commingling"?
>
> Commander Procopio: Commingling of fixed-price work with cost-plus-fixed-fee work. I made the statement before that where cost-plus-fixed-fee work is so intermingled or commingled with fixed-price work, the rating plan cannot be used. This rating plan may be used only where the contract is cost or cost-plus-fixed-fee.
>
> Mr. Hebert: In toto?
>
> Commander Procopio: That is correct.
>
> Mr. Hebert: Wherever there is fixed price, then the rating plan is out?
>
> Commander Procopio: That is correct.
>
> * * *
>
> Commander Procopio: But, Mr. Chairman, I made a statement earlier that where cost-plus-fixed-fee work or fixed-price work or private work amounts to an appreciable degree of the total work, we cannot interfere too much in the insurance arrangements of the contractor. We do what we can toward improving the case and the extent of protection, but we cannot go as far as we can where we are on a cost-plus-fixed-fee basis throughout (emphasis added).

Exhibits:

> Policy and Procedure of Letting Insurance Contracts by the Navy Department, 1945: Hearing before the Committee on Naval Affairs, 7th, Cong., 2d Sess. 419,424 (April 4, 1945).

2065. In a letter dated March 2, 1945 H. Struve Hensel wrote as follows to Congressman Hebert:

> At the outset I want to assure you that it has been, and will continue to be, the policy of this Department to require its cost-plus-fixed-fee contractors to carry suitable insurance at the lowest possible cost. The war projects insurance plan, under which such contractors obtain casualty insurance from an approved carrier of their own selection, was adopted in order to achieve that purpose (Emphasis added).

Exhibit:

> Policy and Procedure of Letting Insurance Contracts by the Navy Department, 1945: Hearing before the Committee on Naval Affairs, 79th, Cong., 2d Sess. 419,424 (April 4, 1945).

2066. The above hearings were held to investigate a problem involving a particular company which had both cost-plus-a-fixed-fee and fixed-price contracts. That company argued that it did not make sense under the plan to seek a separate broker for its cost-plus contracts because it already had its own broker handling its insurance under its fixed-price contracts. As a fixed-price contractor, the company did procure and maintain insurance because the Navy had not assumed its risks of loss under those contracts.

Exhibit:

> Policy and Procedure of Letting Insurance Contracts by the Navy Department, 1945: Hearing before the Committee on Naval Affairs, 79th, Cong., 2d Sess. 405 et seq. (April 4, 1945).

2067. In hearings before the Senate Committee on Naval Affairs on January 26, 1943, L.F. Beck, Chief of the Navy Insurance Division, testified as follows:

> Secondly, we purchase third-party liability insurance and workmen's compensation insurance on such a basis that the experienced claims and safety engineering facilities of the insurance company are made available to our contractors and indirectly to the Navy. The Government assumes only the catastrophe hazard over and above the limits of liability which are specified under such insurance. Use of a special rating plan, called the war projects insurance rating plan, affords coverage as to all workmen's compensation, bodily injury liability and automobile bodily injury, and property damage liability, public liability on what we might call a cost-plus-a-fixed-fee basis.
>
> * * *
>
> The Navy's program of self-insurance and noninsurance relates only to its property and to those third-party liability catastrophe risks over and above insurance coverage which is approved and purchased [under the plan]. (Emphasis added.)

He further made it clear that the only area where the Navy assumed the risk entirely was limited for risk of loss of or damage to government-owned property.

> Senator Gillette: Is there any considerable portion of the risk that the Government has assumed and carries on its own motion, rather than purchasing the commercial insurance?
>
> Mr. Beck: Only with respect to Government-owned property. Now, we have extended our standard theory of Government self-insurance from property which is in the hands of Government personnel to property which is in the hands of contractors either for their use in producing articles of war of for processing. As a good example, let us take a shipbuilding yard which is built

with Government money. That is turned over to the contractor building ships; we carry the risks of loss or damage to that yard (emphasis added).

Exhibit:

Hearing before the Senate Committee on Naval Affairs, 78th Congress, First Sess. 6, 13 (January 26, 1943).

2068. The World War II Navy policy of assumption of risk for third party liabilities never applied to fixed-price supply contracts. Where the United States Navy adopted a policy of assuming the risk, it set out the policy expressly, in written contract terms. It has never been the intent of the United States Navy to routinely assume the risks of fixed-price contractors for their third-party liabilities. Under fixed-priced contracts, the supplier bears all risk of third party claims, absent a contrary provision in the contract. The United States Navy did not restrict the amount of insurance that fixed-price suppliers could include in their contract prices. At no time during the last 45 years has the Navy ever had such a policy. See ¶¶ 2033 to 2067, supra.

Exhibits:

Letter from W. John Kenney, Assistant Chief Procurement, Legal Division before the Practicing Law Institute, New York (October 7, 1943);

War Contracts Price Adjustment Board, Renegotiation Manuals for Fiscal Years Ending After June 30, 1943, (c. March 24, 1944);

Office of the Under Secretary, Dept. of the Navy, "Evolution of Statutory Renegotiation; the Navy Price Adjustment Board, and Observations," History of Navy Department Renegotiation, Vol. 1 (1947);

Office of the Under Secretary, Dept. of the Navy, "Organization and Administration," History of Navy Department Renegotiation, Vol. 2 (1947);

Office of the Under Secretary, Department of the Navy, "Renegotiation Statistics," History of Navy Department Renegotiation, Vol. 3 (1947);

Office of the Under Secretary, Department of the Navy, "Evolution of Statutory Renegotiation; the Navy Price Adjustment Board; and Observations," United States Naval Administration in World War II, Vol. 1 (1947);

Office of the Under Secretary, Department of the Navy, "Organization and Administration," United States Naval Administration in World War II, Vol. 2 (1947);

Office of the Under Secretary, Department of the Navy, "Administrative Memoranda: Exhibits Referred to in Vol. 2," United States Naval Administration in World War II, Vol. 2-Appendix (1947);

Office of the Under Secretary, Dept. of Navy, "Renegotiation Statistics," United States Naval Administration in World War II, Vol. 3 (1947);

Headquarters Army Services Forces, World War II Army Procurement Regulations (c. December 17, 1943);

The Office of Naval Material, Department of the Navy, Negotiators Handbook, NAVEXO P-1001 (Rev. March 1958);

Office of General Counsel, Dept. of the Navy, Navy Contract law, NAVEXO P-1995 (2nd ed. 1959);

Department of the Air Force, Procurement Law (May 1, 1964);

Department of Defense, Procurement Training Handbook (1968 ed.);

G.J. Ginsburg; Allocation of Risk: Contractor Responsibility for Injury to Government Property and To Third Parties Under Supply and R&D Contracts, 2 Public Contract L.J. 333 (1969);

M. Rishe, The Product Liability Dilemma Under Government Sales, 34 Univ. of Pittsburgh L.R. 177 (1972);

Headquarters Naval Material Command, Procurement Newsletter, NAVMAT P-2182 (Sept. Dec. 1972);

Defense Contract Audit Manual, Appendix G. (May 1979);

Memorandum from H. Struve Hensel to W. John Kenney (August 26, 1986);

Report from Council of Defense and Space Associations to Captain E.C. Chapman entitled "ASPR" Coverage of Warranties and consequential Damages." (August 12, 1971);

Memorandum from Gokey (February 19, 1944).

Navy Appropriation Bill for 1942, 1941: Hearings before the House Subcommittee of the Committee on Appropriations, 77th Cong., 1st Sess. (February 3, 1941) (Statement of Frank Knox, Secretary of the Navy);

Witnesses:

John M. Malloy;

Gilbert J. Ginsburg;

C. Bouton McDougal;

Charles Stockton;

George Lockhart;

Willis McCook Miller;

Charles Woodruff;

Mort Thompson;

Edward Cook.

2069. Manville alleges in paragraph 593 of its proposed findings of fact that "Navy negotiators were instructed to make certain that no cost of insurance was included in the price in any fixed-price contract," and that "the reimbursement obligation was a clear understanding between the Government and the contractor, reflected in the contract price which had been lowered by the exclusion of any coverage of insurance." The evidence fails to support their allegations. There is no evidence that representatives of the United States Navy ever negotiated with Manville regarding the inclusion of an assumption of risk provision in Manville's supply contracts. Nor is there any evidence that government representatives ever negotiated with Manville, or had any other type of communication with Manville, regarding the treatment of third-party personal injury liability as a cost of performance within the scope of damages available for breach. In fact, the two witnesses listed by Manville as being knowledgeable about the pricing of Manville products during the war, Clyde Barnett and Charles O. Garcelon, never heard of any Navy insurance program and knew nothing about what factors went into pricing Manville products.

Exhibits:

Paragraph 593 of Plaintiff's Proposed Findings of Fact;

Plaintiff's Response to Defendant's Interrogatory No. 402.

Witnesses:

Clyde Barnett;

Charles Garcelon;

Roger Hackney.

2070. Whether or not Navy negotiators were instructed to exclude the costs of insurance is of little significance here for Manville's contracts were in fact entered into without negotiations, pursuant to competitive bidding. None of the trial witnesses listed by Manville who handled Navy WWII contracts or who were involved in handling Manville insurance had ever heard of a Navy assumption of risk policy prior to becoming involved in this litigation.

Witnesses:

Clyde Barnett;

Charles Garcelon;

Norman Adams;

Roger Hackney.

2071. The Navy negotiators who worked in the Office of Procurement and Material during World War II were involved only in handling large negotiated contracts, generally in excess of $200,000. They do not recall ever having been instructed to eliminate the costs of insurance from fixed-price supply contracts.

Exhibits:

Changes in Purchase Procedure in the Bureau of Supplies and Accounts Since the Emergency (December 5, 1942);

Interim Memorandum on Procurement in the Navy Department (undated).

Witnesses:

Harris Kempner;

Mark Andrews;

Robert Maroney.

2072. Manville has failed to prove that there was any mutuality of intent or shared understanding regarding an assumption of risk by the United States or the management of third-party liability as an aspect of performing the contract. Roger Hackney, Manville's treasurer during World War II, was responsible for making decisions as to what kinds of insurance should be purchased. According to Mr. Hackney it was Manville's policy to have coverage for all risks that could possibly become catastrophic, including products liability. According to Hackney Manville never took any measures after he became treasurer in 1942 to reduce or eliminate insurance against losses caused by products in manufacture or sold. He was aware of no policy not to carry insurance for losses caused by claims arising out of products and could recall no plan to cut back or eliminate such insurance. It was his opinion that Manville did carry insurance on products relevant here, including

pipe insulation, block insulation and asbestos cement. Hackney had no recollection of Manville having secured insurance to cover products sold to one customer but not another and, in fact, felt that that did not happen. Hackney had no recollection of the United States ever having advised or directed Johns-Manville not to carry insurance for products it was buying. He had no recollection and had never seen any evidence of being told by the Government not to carry insurance. He testified in deposition that the first time he ever heard of such a policy was in 1986 when Mr. Lewis Barr, one of Manville's Counsel discussed the alleged policy with him.

Witness:

Roger Hackney.

2073. There is no evidence that representatives of the United States Navy ever negotiated with Manville's representatives concerning an assumption of risk for Johns-Manville's third-Party liability risks in any of Johns-Manville's contracts, including those listed in paragraphs 491-580 of Manville's Proposed Findings of Fact.

(2) There Was No Privity Of Contract Between Manville and the Maritime Commission During WWII with Regard To Most Asbestos-Containing Products And No Shared Understanding That Manville's Third-Party Tort Liability Would Be Borne By The Maritime Commission

2074. The Merchant Marine Act of 1936 provided that to promote shipbuilding in the United States, subsidies would be given through the Maritime Commission to operators of merchant ships. These subsidies were intended to compensate for the difference in costs between foreign and domestic shipbuilding.

2075. In 1938, the Maritime Commission began a program to build 500 merchant ships in ten years. Most of these vessels were "standard" design cargo vessels (either C-1, C-2, or C-3) which could be used by both the merchant marine and the Navy. However, the Maritime Commission also either subsidized or contracted for five other types of ships during the period 1939-1945: Liberty ships; Victory ships; tankers; combat ships; and minor ships (e.g., barges). All these ships were built in private shipyards.

Exhibits:

F. Lane, Ships for Victory, at 22, 23 (1951);

G. Fischer, A Statistical Summary of Shipbuilding Under the Maritime Commission During World War II ("Statistical Summary").

2076. The Liberty ship program was begun in anticipation of war and to provide cargo ships to carry

supplies to Britain. When the United States entered the war after Pearl Harbor, the Liberty ship program was expanded. These ships were designated "EC-2" because they were based on a standard C-2 cargo ship, but were of an emergency and less up-to-date construction. Two thousand and eighty Liberty ships of this kind were built.

2077. Victory ships, begun in late 1943, were based on the same design as the Liberty ships, but were faster. The Maritime Commission built 414 Victory cargo ships and 117 Victory transport ships.

Exhibits:

F. Lane, Ships for Victory, at 40-45, 83, 138, 574, 608 (1951);

G. Fischer, Statistical Summary.

(a) All Asbestos-Containing Insulation Materials Were Procured Directly By The Private Yards, Not By The Maritime Commission

2078. Certain parts and materials needed for the Liberty Ships were purchased by the Maritime Commission (either directly or through the naval architecture firm of Gibbs and Cox) and then allotted to the shipyards. However, this central purchasing did not apply to certain materials, including insulation products. Insulation was purchased directly by the private shipbuilding companies which owned or operated the yards.

Exhibits:

Letter, Gibbs & Cox to Rogers Company, (August 30, 1941);

F. Lane, Ships for Victory at 92 (1951).

2079. Throughout the war the Maritime Commission continued to subsidize "standard" ships as part of their long-range program for building ships which could be used after the war. All purchasing for the standard ships, including all asbestos-containing insulation products, was done directly by the shipyards. The eight Maritime Commission ships built at Bethlehem's Fore River shipyard were all standard C-3E ships. Thus Bethlehem Steel (or a distributor supplying these products to Bethlehem Steel), and not the United States, entered into any Manville contracts for the sale of asbestos-containing products to Fore River for use on Maritime Commission ships.

Exhibits:

F. Lane, Ships for Victory at 125 (1951);

U.S. Maritime Commission, Permanent Summary of Completed Contracts.

Witness:

Joseph Barnes

2080. The shipbuilders themselves also purchased all insulation materials for the Victory ships.

Exhibit:

Subcontract between Oregon Shipbuilding Corp. and E.J. Bartells Co. (June 15, 1944).

2081. The only asbestos-containing products sold by Manville to the Maritime Commission during WWII were marine board and Marinite, neither of which were insulation products. Approximately ninety percent of Manville's sales to the Maritime Commission consisted of marine board, with the other ten percent consisting of Marinite. Manville supplied no pipe covering or other insulation directly to the Maritime Commission.

Witness:

Clyde Barnett.

2082. All sales by Manville to the Maritime Commission during World War II were subject to competitive bidding.

Witness:

Clyde Barnett.

(b) The Maritime Commission Contracts Specifically Provided That The Shipyards Were Not Agents Of the United States

2083. The Maritime Commission contracts for Liberty Ships expressly provided that the contractor was not an

agent of the United States, but was "acting as an independent contractor and not as an agent."

Exhibit:

U.S. Maritime Commission, Contract for the Construction of Emergency Cargo Ships, Contract No. MCC-ESF-595 (May 1, 1941).

Witness:

Joseph Barnes.

2084. The Victory ship contracts contained the same express disclaimer of agency.

Exhibit:

U.S. Maritime Commission, Control for 44 UC 2-5-AP2 (Victory Vessels) (August 10, 1944).

(c) The Contracts Used By The Maritime Commission During World War II Required That Contractors And Subcontractors Hold The Government Harmless From Liability For Injuries To Third Persons

2085. Two types of shipbuilding contracts were used frequently during the World War II by the Maritime Commission: man-hour and price-minus. The Liberty ships were built under man-hour contracts. Under these contracts, a standard of a certain number of hours was established for each ship. If a shipyard met the standard in man-hours it received a particular sum per ship as the base fee. If the shipbuilder exceeded the standard, it was penalized for each day of delay and for each man-hour employed above the

standard. Those shipbuilders that did better than the standard had their fees increased for each day they were early and for each man-hour saved, up to a maximum.

Exhibits:

F. Lane, Ships for Victory, at 121-23 (1951).

Witness:

Joseph Barnes.

2086. Price-minus (or "incentive price") contracts were used for tankers and standard cargo ships. The price set in the contract included cost plus a minimum fee. If the shipbuilder's costs were under the contract price, he received half the savings plus the minimum fee.

Exhibit:

F. Lane, Ships For Victory, at 125-6 (1951)

Witness:

Joseph Barnes

2087. The Maritime Commission frequently required shipbuilders and their subcontractors to agree to indemnify the United States for personal injury liability losses. For example, a Maritime Commission contract of November 28, 1938 for a "C-3-Single Screw Cargo Vessel-Turbine Propulsion" had an indemnity provision whereby the shipbuilder agreed to indemnify the United States against claims arising from injuries and deaths of all persons due to the negligence of

the contractor, the subcontractor, or their agents or employees.

The contract stated that:

> The Contractor shall indemnify and save the United States, the Commission, and any other Governmental agency or instrumentality, and the vessel, harmless against all claims arising from injury to or death of employees, workmen, trespassers, licensees, and all other persons, whether in, on or about the work to be performed hereunder and/or damage to or loss of property, due to the act, neglect or default of the Contractors or subcontractors or their agents or employees; it being expressly understood that the workmen engaged upon the vessel to be constructed hereunder shall at all times be employees of the Contractor and/or subcontractors and not of the Commission.

Exhibit:

> U. S. Maritime Commission, Contract for the Construction of a Single Screw, Cargo Vessel Hull No. 162 (November 28, 1938).

2088. This provision was typical "boilerplate" language used in Maritime Commission shipbuilding contracts for standard ships.

Exhibits:

> Contract for the Construction of a Single Screw Combination Passenger and Cargo Vessel Hull No. 386 between the U.S. Maritime Commission and Newport News Shipbuilding and Dry Dock Co. (September 29, 1939);
>
> Contract for the Construction of a Single Screw, Cargo Vessel Hull No. 162 (Design C-3 Cargo Vessel) (November 29, 1938).

Witness:

> Joseph Barnes.

2089. Similarly, the Maritime Commission contract for Liberty ships expressly provided that the contractor was required to "pay to the Commission all losses and indemnify the Commission against all claims and demands which would otherwise have been covered by insurance."

Exhibit:

U.S.M.C., Contract for the Construction of Emergency Cargo Ships, Contract No.MCC-ESF-595 (May 1, 1941).

Witness:

Joseph Barnes.

2090. The Maritime Commission contract for Victory ships likewise provided that in the event that any of the insurance required by the Commission, including that for third party liability, was not kept in force, the contractor had to "pay to the Commission all losses and indemnify the Commission against all claims that would otherwise have been covered by the such insurance."

Exhibit:

U.S. Maritime Commission Contract with Bethlehem-Fairfield Shipyard for 44 VC 2-5-AP2 (August 10, 1944).

2091. Moreover, subcontractors who installed insulation on ships built for the Maritime Commission were required to carry insurance and public liability and property damage insurance. The subcontractor expressly

agreed to "indemnify and save Contractor and/or the Government harmless from and against any and all claims, loss, damage, injury and liability, howsoever same may be caused, resulting from the acts or omissions of subcontractor, its agents or employees, in the performance of the work under this agreement."

Exhibits:

Contract between California Shipbuilding Corp. and Plant Rubber and Asbestos Works for installation of insulation (November 4, 1941);

Contract between Richmond Shipyard Number One of Permanente Metals Corp. and Dutton Asbestos & Supply (October 15, 1943).

(3) Many of The Contracts Relied On By Manville Do Not Relate To A Test Shipyard, Do Not Deal With A Product At Issue In This Litigation, Or Were Entered Prior To The Date On Which Manville Alleges That The Navy Adopted The Relevant Policy of Self-Insurance

(a) Several Of The Contracts Identified By Johns-Manville Do Not Involve The Test Shipyards

2092. Contract NOs-83742 did not involve a sale to or for one of the test shipyards.

Exhibit:

Memorandum from Director, U.S. Naval Engineering Experiment Section to Inspector of Naval Material, New York, New York (May 27, 1941).

2093. Contract NXS-8578 did not involve a sale to or for one of the test shipyards.

Exhibit:

Memorandum from Director, U.S. Naval Engineering Experiment Station to Inspector of Naval Material, San Francisco, California (August 15, 1942).

2094. Contract NXS-49033 did not involve a sale to or for one of the test shipyards.

Exhibit:

Memorandum from Director, U.S. Naval Engineering Experiment Station to Bureau of Ships (August 1944).

2095. Contract NOd-1126 did not involve a sale to or for one of the test shipyards.

Exhibit:

Memorandum from Director, U.S. Naval Engineering Experiment Station to Inspector of Naval Material, New York, New York (April 22, 1941).

2096. Contract NOd-1098 did not involve a sale to or for one of the test shipyards.

Exhibit:

Naval Communications Service Message from U.S. Naval Engineering Experimental Station to Inspector of Naval Material, Johns-Manville, New Jersey (May 6, 1941).

2097. Contract NXS-8269 did not involve a sale to or for one of the test shipyards.

Exhibit:

Memorandum from Commandant, Philadelphia Navy Yard to Inspector of Naval Material, Vernon, California (March 16, 1943).

2098. Contract 251S-8705 did not involve a sale to or for one of the test shipyards.

Exhibit:

Letter from Clyde Barnett, Johns-Manville to J.M. McCleverty, Seattle Office, Johns-Manville (October 5, 1943).

(b) Several Of The Contracts Identified By Manville Do Not Involve A Product At At Issue In This Litigation

2099. Contract NXS-17542 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Memorandum from Director, U.S. Naval Engineering Experiment Station to Inspector of Naval Material, Chicago, Illinois (February 18, 1943).

2100. Contract XSX62532 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2101. Contract NOs-97444 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Civilian Production Adminsitration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2102. Contract 140-S-20224 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2103. Contract NOs-79893 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Memorandum from Director, U.S. Naval Engineering Experimental Station to Bureau of Ships (March 13, 1940).

2104. Contract N-111-S-24058 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Letter from Johns-Manville Sales Corp. to Supply Officer, Boston Navy Yard (March 29, 1940).

2105. Contract NXS-19506 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibits:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713;

Letter from Bureau of Supplies and Accounts to Johns-Manville Products Corporation (January 25, 1943).

2106. Contracts NXS-20670, NXS-27030, NSX-18587, NXSS-2999, NXSS-26196, Nobs-180, DE-4368, C-7065-2 USN, NCC-13181, NCC-2123, NOd-1499, and NXSS-30874 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibit:

Letter from S.F. Curtic, Johns-Manville Corporation to Office of Naval Office Procurement (August 16, 1943).

2107. Contract XSX87000 did not involve any product which Manville alleges it sold to a test shipyard during World War II.

Exhibits:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracats, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713;

Letter from Clyde Barnett to J.F. Adams (November 29, 1944).

(c) Manville Could Not Be Entitled To Recovery Under Several Of The Identified Contracts Because They Were Formed Before The Date On Which Manville Alleges That The United States Adopted Its Self-Insurance Policy

2108. Manville could never be entitled to the protection of the Navy policy of "self-insurance" on Contract NOs-83742 since the contract preceeded the Navy's adoption of its "self-insurance" policy.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2109. Manville could never be entitled to the protection of the Navy policy of "self-insurance" on Contract NOs-90656 since the contract preceeded the Navy's adoption of its "self-insurance" policy.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2110. Manville could never be entitled to the protection of the Navy policy of "self-insurance" on Contract NOs-88316 since the contract preceeded the Navy's adoption of its "self-insurance" policy.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2111. Manville could never be entitled to the protection of the Navy policy of "self-insurance" on Contract NOs-78584 since the contract preceeded the Navy's adoption of its "self-insurance" policy.

Exhibit:

Letter from Bureau of Supplies and Accounts to the General Accounting Office Audit Division (December 3, 1940).

2112. Johns-Manville could never be entitled to the protection of the Navy policy of "self-insurance" on Contract NOs-83943 since the contract preceeded the Navy's adoption of its "self-insurance" policy.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

2113. Manville could never be entitled to the protection of the Navy policy of "self-insurance" on Contract NOs-90647 since the contract preceeded the Navy's adoption of its "self-insurance" policy.

Exhibit:

Civilian Production Administration, Alphabetic Listing of Major War Supply Contracts, Cumulative June 1940 through September 1945, Vol. 2 D-J at 1711-1713.

(d) There Is No Evidence Connecting Many Of The Contracts Relied On By Manville To The Test Shipyards, The Test Claimants Or The Products At Issue Here

2114. There is no evidence connecting the following contracts cited by Johns-Manville to any test shipyard or test claimant: N2205-72315, N2205-71177, NSX-17542, NXS-

27469, NXS-28601, N4065-5411, NXS-34796, NXS-62532, NOy-3570, N-251-S-93322, NOd-1440, Consolidated #OA5, Combustion Engineering Company Order 434134, NOd-1832, Bethlehem Steel Order S1128-446-D-1470, 19706, N2205-60007, NOs-97444, NOs-98779, NOs-75575, NOd-1431, NOd-1501, NOd-1641, NOs-83941, N-251-S-58338, NOd-1491, C-3238, NOs-73867, NOs-88316, 2814A, 140-S-20224, NXS-35130, NXSS-83798, W2205-79747, XSX-79640,NObs-1994, Bath Iron Works Order # 331-41-70, NOd-1632, NOd-1633, Nod-1640, NOd-1641, Order OA5/NOd-1512, Bath Iron Works Order # 423-41-3, NOs-79893, 251-XSS-91656, NOy-3735, N-111-S-240-24, NOs-78584, NOs-93043, NOd-1434, NOs-1098, NOs-90647, 220-S-66395, 220-S-66154, NXSS-16563, NXS-19506, N1515-49369, 111-XS-37070, 111-S-371709, N-1915-26571, N-140-S-19418, NXS-20670, NXS-27030, NXS-18587, NXS-2999, NObs-180, DE-4368, NXSS-26196, C-7065-2-UNS, NCC-13181, NCC-2123, NOd-1499, NXSS-30874, NXS-40959, NXS-44214, NXS-44108(p), NXS-49478(p), NXS-56472(p), NXS-56092, NXS-62542, NXS-67732, 251-XSS-92369, NXSX-66329, NXSX-62530, NXSX-52047, NXSX-62547, NXSX-68431(p),NXS-43436, XSX-87000, and 130XSX-20064.

2115. There is no evidence connecting the following contracts cited by Manville to any product Manville alleges it sold to a test shipyard: N2205-60007, NOs-97444, NOs-98779, NOs-78584, NOs-93043, NOs-1098, NOs-90647, 220-S-66395, 220-S-66154, NXSS-16563, N1515-49369, N-111-S-28270, 2414-8705-[ ], NXS-40959, NXS-44214(p), NXS-44108(p), NXS-

49478(p), NXS-56472(p), NXS-56092, NXS-62542, NXS-67732, NXSX-66329, NXSX-62530, NXSX-52047, NXSX-62547, NXSX-68431(p), NXS-43436, 151XSX-63408 and 130XSX-20064.

(e) Manville Has Not Identified Any Relevant WW II Contracts Relating To Electric Cable Filler, Marine Tape Akoustikos Felt Or Ebony Asbestos

2116. Manville has not identified any World War II contract with or for any test shipyard for the purchase of Electric Cable Filler.

2117. Manville has not identified any World War II contract with or for any test shipyard for the purchase of Marine Tape.

2118. Manville has not identified any World War II contract with or for any test shipyard for the purchase of Akoustikos Felt.

2119. Manville has not identified any World War II contract with any test shipyard for the purchase of Ebony Asbestos.

[The next paragraph is No. 2220]

E. NEITHER MATERIAL SPECIFICATIONS NOR SHIP SPECIFICATIONS PROVIDE ANY BASIS FOR MANVILLE'S CLAIMS AGAINST THE UNITED STATES

(1) The Asbestos Industry In General And Manville In Particular Played Dominant Roles In Shaping The Government's Specifications, Which Were Written To Permit Procurement Of The Industry's Existing Products

(a) Types And Purposes Of Procurement Specifications

2220. A procurement specification is a document prepared to support acquisition which describes the technical requirements for the material, product or service covered by the specification. Procurement specifications ordinarily specify the minimum performance and/or composition features necessary for an acceptable product.

Exhibits:

Administrator of General Services, Guide to Specifications and Standards at the Federal Government (July 1963);

Department of Defense, Standardization Program Analysis, Ch. III "Policies and Procedures for Standardization Documents" (June 30, 1978).

2221. A federal specification is a standard procurement specification for use by federal agencies. A military specification is a procurement specification which covers materials, products, or services used only or predominantly by the military. Prior to 1950, the Navy Department issued its own specifications covering materials,

products, or services used only by the Navy. Interim federal, military or Navy specifications may be developed by various bureaus within a department or agency to meet immediate procurement needs. They are required to be used by the agencies specified in the preamble, but are for the optional use of all agencies.

Exhibits:

Administrator of General Services, Guide to Specifications and Standards at the Federal Government (July 1963);

Department of Defense, Standardization Program Analysis, Ch. III "Policies and Procedures for Standardization Documents" (June 30, 1978).

2222. Military Standards are documents that reference specifications in the course of describing a process, procedure or system for military use. Standards are not used for procurement.

Exhibit:

Administrator of General Services, Guide to Specifications and Standards at the Federal Government (July 1963).

2223. General specifications for vessels are not procurement specifications, but consist of the technical requirements defining the work and responsibilities required of contractors for preparing a ship design, building a ship, or both. Section 9390 of the "General Specifications" and

its predecessors set forth the Navy's general requirements for thermal insulation for machinery, equipment and piping.

Witness:

John J. Nachtsheim.

2224. Detailed ship specifications contain technical requirements and information relating to the construction and testing of a particular ship or class of ships. When the Navy decides to build a ship, it adapts the General Specifications to include requirements (e.g., weapons systems) unique to that vessel and to exclude features of the General Specifications not appropriate to that vessel, thereby creating a "ship specification".

Witness:

John J. Nachtsheim.

(b) The General Specifications Process Prior To And During World War II

2225. The federal specifications system was established prior to World War II in order to standardize the grades and sizes of products purchased by the various government departments and to insure conformity with commercial practice wherever possible. In this regard, it was the policy of the Federal Specifications Board, since at least 1930, that its technical committees carefully consider specifications adopted by trade associations, technical

societies and large corporations in preparing specifications for recommendation to the Board.

Exhibits:

James Lynch of the Production Division of the National Defense Advisory Commission, Address delivered before the Manufacturers' Association of Connecticut (October 31, 1940);

Specifications Manual from War Production Board Conservation Division, Specification Series No. 2, Issue 1 (June 1, 1943);

The Organization and Procedure of Technical Committees in the Revision or Preparation of Federal Specifications (December 15, 1930).

2226. The Department of the Navy had representatives on most of the committees of the Federal Specifications Executive Committee.

Exhibit:

Memorandum from Edwin Denby, Secretary of the Navy to Capt. Bennett, U.S. Navy (May 18, 1922).

2227. As of November, 1940 the Navy had adopted 865 of 1,300 federal specifications and had followed federal specifications in all but the number assigned in many other Navy specifications.

Exhibit:

"How Army and Navy Cooperate on Standards for Purchasing," Industrial Standardization and Commercial Standards Monthly, at 286 (November 1940).

2228. All technical committees of the Federal Specifications Board were required to contact representatives of industry while a specification was in the process of formulation or revision.

Exhibit:

The Organization and Procedure of Technical Committees in the Revision or Preparation of Federal Specifications (December 15, 1930).

2229. Any constructive suggestions by manufacturers were to be considered and incorporated in the specification before being transmitted to the Federal Specifications Board for circulation to government departments for comment and criticism.

Exhibit:

The Organization and Procedure of Technical Committees in the Revision or Preparation of Federal Specifications (December 15, 1930).

2230. Proposed specifications were required to be adjusted to reflect, so far as practicable and consistent, the comments of the various government establishments and the comments of the industry trade associations.

Exhibit:

The Organization and Procedure of Technical Committees in the Revision or Preparation of Federal Specifications (December 15, 1930).

2231. In submitting final recommendations to the chairman of the Federal Specifications Board, on either new specifications or revisions of existing specifications, there had to be included a summary of the comments received, with the action taken by the technical committee noted on each individual comment.

Exhibit:

The Organization and Procedure of Technical Committees in the Revision or Preparation of Federal Specifications (December 15, 1930).

2232. It was routine for manufacturers in the thermal insulation industry to initiate comment and make suggestions with respect to specifications issued by the Department of Navy. Frequently, suggestions by manufacturers in the thermal insulation industry were incorporated into specifications issued by the Navy.

Exhibits:

Letter from Vice President of Ehret Magnesia Manufacturing Company to Capt. Kaemmerling, U.S.N., Bureau of Steam Engineering, (October 29, 1913);

Letter from President and General Manager of Keasbey & Mattison Co. to Capt. Kaemmerling Bureau of Steam Engineering, Navy Report (October 8, 1913).

Witnesses:

John Alfers;

Leon Birnbaum.

2233. Manville played a particularly influential role in the preparation and revision of Federal and Navy specifications for thermal insulation materials. By its own description, it was Manville's practice "to follow the members of the Federal Specification Committee in the interest of our materials to see that Federal Specifications... [have] as few curves in them as possible so that our standard materials would comply." Manville's Government Department noted in 1942 that "Washington has specifications which are general in scope and on which this department has put a great deal of work to see to it that we are properly protected in the manner of specifications."

Exhibit:

Minutes of Officers' Board Meeting, Johns-Manville Government Service Unit (June 22, 1942).

2234. As a general rule, Navy specifications for thermal insulation materials up to and throughout World War II reflected products available in the marketplace. When the Navy had a need for a product not covered by an existing specification, the Navy engineer responsible for that type of product would survey the market to find available products potentially responsive to the Navy's needs. The engineer would accomplish this task by reading suppliers' catalogues and other technical product literature. In order to obtain data on which determinations of suitability could be made, he would usually also meet, correspond with, or

converse on the telephone with industry representatives. The engineer would then prepare a draft of a specification describing the products he had discovered during his survey.

Exhibits:

"U.S. Navy Department to Test Compressed Sheet Packing," at 19 (September 1921);

Memorandum from Director of U.S. Naval Engineering Experiment Station to Bureau of Engineering (November 16, 1933);

Report No. 6191, U.S. Naval Engineering Experiment Station (October 9, 1935);

Letter from H.S. Jeans, U.S.N. Bureau of Engineering, to H.S. Fitzgibbon & Co. Inc. (October 24, 1935);

Letter from H.J. Jeans, Bureau of Engineering, to Keasbey and Mattison Co. (October 24, 1935);

Letter from H.S. Jeans, Bureau of Engineering, to Union Asbestos & Rubber Company (October 24, 1935);

Letter from H.S. Jeans, U.S.N. Bureau of Engineering, to Johns-Manville Inc. (October 24, 1935);

Letter from H.S. Jeans, U.S.N. Bureau of Engineering (October 24, 1935);

Letter from H.S. Jeans, U.S.N., to Anchor Packing Co. (October 24, 1935);

Letter from Vice President of Union Asbestos & Rubber Co. to Bureau of Engineering (October 26, 1935);

Letter from Keasbey & Mattison Co. Staff Engineer to Navy Dept., Bureau of Engineering (October 29, 1935);

Letter from H.S. Jeans, Bureau of Engineering to Director, Engineering Experiment Station (November 1, 1935);

Letter from H.S. Jeans, U.S.N., Bureau of Engineering to Keasbey & Mattison Co. (November 1, 1935);

Letter from O.L. Cox, Director, U.S. Naval Engineering Experiment Station to Bureau of Engineering (November 26, 1935);

Letter from Staff Engineer of Keasbey & Mattison Co. to Navy Department Bureau of Engineering (December 10, 1935);

Letter from H.S. Jeans to Keasbey & Mattison (December 16, 1935);

Memorandum from Bureau of Engineering to Secretary of the Navy (1935);

Memorandum from the Department of the Navy, Judge Advocate General to Bureau of Engineering (July 3, 1936);

Navy Specification 32-T-1, Tape, Insulating, Thermal (October 1, 1936);

Amendment-1 to Military Specification for Tape, Insulating, Thermal MIL-T-15349 (Ships) (November 15, 1950);

Memorandum from the Chief of Bureau of Ships to Director, Engineering Experiment Stations (May 3, 1943);

Memorandum from Chief of the Bureau of Ships to Director, Engineering Experiment Station (May 28, 1943);

P.W. Haas, Jr. U.S. Naval Engineering Experiment Station Test of Asbestos Finishing Cement Insulation, various brands submitted by various manufacturers (September 21, 1945);

Letter from Mr. Radford, U.S.N. Bureau of Engineering,to Johns-Manville Sales Corp. (October 4, 1945);

Letter from Mr. Radford, U.S.N. Bureau of Engineering to Eagle Picher Sales Co. (October 4, 1945);

Letter from Mr. Radford, U.S.N., Bureau of Engineering to Keasbey & Mattison Co. (October 4, 1945);

Navy Specification 32-C-1b for Cement, Insulation, Asbestos, Finishing (September 3, 1946).

Witnesses:

John Alfers;

Leon Birnbaum.

2235. The draft of the specification was reviewed by the appropriate specifications office, which circulated the document to interested parties, including manufacturers and suppliers, in order to solicit comments. The engineer reviewed all comments received and prepared a final draft taking the comments into consideration. If significant changes were made to the original draft, the revised version would be circulated and comment would again be sought from interested parties.

Witnesses:

John Alfers;

Leon Birnbaum;

John Haas.

2236. Although the Navy staff engineers attempted to keep current in the areas assigned to them, the industry engineers and representatives invariably had much greater knowledge concerning the design, composition, manufacturing

process, performance characteristics, existing commercial uses, and possible new uses of their own products. Therefore, the Navy staff engineers relied heavily upon industry to provide them with all the information needed to draft useful specifications.

Witnesses:

John Alfers;
Leon Birnbaum.

2237. As a general rule, the same insulating products being used for maritime purposes during World War II were being sold to both the military and to the civilian shipping industry.

Witness:

John J. Nachtsheim.

2238. It was mandated for federal and military specifications that in all cases where physical and chemical requirements were prescribed in the specifications, suitable test methods were to be included. Also, the specification had to include a description of the methods of physical tests or chemical analyses.

Exhibit:

"The Organization and Procedure of Technical Committees in the Revision or Preparation of Federal Specifications" (December 15, 1930).

2239. During World War II, the Navy's Bureau of Ships listed four types of tests conducted at Naval laboratories to determine suitability of machinery, equipment, and materials for use in Naval Service:

(a) Type or brand approvals are those authorized prior to procurement under contract to determine that machinery, equipment, and material is suitable for use in the Naval Service, when specifications under which purchase is to be made require that the machinery, equipment, and material shall pass the tests required for type or brand approval.

(b) Research and development tests are those authorized to obtain information relative to material, processes, design, and utilization to determine suitability and adaptability for use in the Naval service; to develop new ideas, processes, and theories for the utilization of machinery, equipment, and material in the Naval service; to develop new specifications or revise existing specifications.

(c) Inspection tests are those made to determine compliance with contract requirements, and may be made either at the place of manufacture or at a Government laboratory, and are usually witnessed or authorized by the Inspector of Naval Materials.

(d) Service tests are those usually conducted aboard ship because of inability to simulate in a laboratory the conditions actually obtained in service, to determine performance of materials under such conditions. In addition to the service tests which are planned as such, tests of material and equipment which have failed in service, are made in laboratories to determine the reason for failure.

Exhibit:

U.S.N. Bureau of Ships Conditions Governing Tests in Naval Laboraties (July 1, 1944)

2240. As a general rule, the manufacturer would bear the cost of any such tests. However, with respect to

materials incorporating new ideas or designs which, if proved satisfactory, would result in increased efficiency to the Navy (Class B materials), the Chief of the Bureau concerned could determine whether the government or manufacturer would bear the cost.

Exhibit:

Memorandum from Assistant Secretary of the Navy to Commandants, Naval Yards and Naval Stations, et al. (March 21, 1933).

(c) The Manville Products Alleged To Have Injured The Test Claimants And The Corresponding Navy Specifications

(i) Magnesia Pipe Covering, Block And Cement

2241. Navy Department specification 23-L-1 issued May 11, 1908 and its successor, 32-L-1, issued in 1909, were the original high temperature pipe covering specifications used by the Navy for magnesia insulating or lagging material. These specifications mirrored the 85% magnesia formula first patented in the 1880's.

Exhibits:

Navy Specification for Magnesia Insulating Covering or Lagging Material, 23-L-1 (May 11, 1908);

Navy Specification for Magnesia Insulating Covering or Lagging Material, 32-L-1 (July 15, 1910);

"85% Magnesia" and Heat-Insulation, The Magnesia Association of America (1917);

J.C. Rademaker, History of Magnesia Type Insulations (January 16, 1956).

2242. The issuance of 23-L-1 occurred 22 years after the issuance of the first patent for 85% magnesia insulation. 85% magnesia insulation was widely used both commercially and by the Navy during most of this time frame.

Exhibits:

Navy Specification for Magnesia Insulating Covering or Lagging Material, 23-L-1 (May 11, 1908);

J.C. Rademaker, History of Magnesia Type Insulations (January 16, 1956).

2243. The historical development of 85% magnesia insulation products shows that it was developed by industry for a wide range of uses. In the early days of steam engineering, it was discovered that radiation was robbing steam engines of efficiency. Most of the early forms of insulation included organic matter which decomposed at around 300' F. The first effective insulators for steam engineering were magnesia products introduced almost by accident.

Exhibits:

"Still Does the Best Job," Asbestos Magazine at 7 (Spring 1947);

The Magnesia Association of America (1917) 85% Magnesia and Heat-Insulation (1917).

Witness:

Terry Ring.

2244. In 1886 Hiram Hanmore applied for a patent for insulation composed mostly of carbonate of magnesia. Keasbey & Mattison Co., the assignee of this first patent, listed animal hair, wool, asbestos and various other fibers not readily affected by heat as possible choices to provide the necessary "binder" to hold the magnesia together.

Exhibit:

U.S. Patent 345, 843 Hanmore, H.M. (to Keasbey and Mattison) (July 20, 1886) as cited in Castleman, Asbestos: Medical and Legal Aspects at 298 (1984)

2245. Produced from dolomite rock, magnesia is an inert, inorganic chemical compound. The original 85% magnesia products did not contain asbestos. Through experimentation and use there evolved a satisfactory working composition of magnesia and asbestos fibre, the magnesia content being 85%.

Exhibit:

"Still Does the Best Job," Asbestos Magazine at 7 (Spring 1947).

2246. The Magnesia Association of America came to believe that all other magnesia coverings that did not have this 85% proportion were misleading and inefficient, and strongly resisted any deviation from this formula.

Exhibits:

The Magnesia Association of America "85% Magnesia" and Heat-Insulation, at 6 (1917);

"Two minute Talks on '85% magnesia'", Asbestos Magazine (November 1919);

"Two-minute Talks on '85% magnesia'", Asbestos Magazine (September 1919);

"Pipe and Boiler Covering Up to Date", Asbestos Magazine (June 1920);

"Magnesia Association of America offers both a service and a commodity," Asbestos Magazine (June 1920).

2247. 85% magnesia insulation was a widely available commercial product. It was used not only on Navy ships, but also on most Atlantic liners and tramp steamers, locomotives and the leading power stations of the world. Moreover, hotels, departments stores, breweries, residences and apartment houses were insulated with 85% magnesia insulation, including such famous buildings as Penn Station (New York City), the Capitol Building (Washington, D.C.) and the Engineers Building (New York City).

Exhibit:

The Magnesia Association of America, "85% Magnesia" and Heat-Insulation (1917).

Witness:

Terry Ring.

2248. H.W. Johns, founder of Johns-Manville, is widely recognized for first using asbestos for industrial purposes on a large scale, and he has been described by Manville as "one of the real founders of the asbestos and asbestos-related industries."

Exhibits:

"The Asbestos Industry in 1876," Asbestos Magazine, at 27 (March 1927);

Cummins, A Century of Service With Johns-Manville, at 4 (1958).

2249. Manville went into production of 85% magnesia at Milwaukee in 1899, at Manville, New Jersey in 1912, and at Waukegan in 1922. Manville advertised its 85% Magnesia Sectional Pipe Insulation, Cement, and Block in a number of leading industry catalogues and brochures. The pipe insulation was recommended for high pressure steam surfaces; the block and cement for boiler insulation. By 1904, Manville was attempting to sell its magnesia/asbestos insulation products to the Navy.

Exhibits:

Minutes of Johns-Manville's Officers' Board Meeting on Insulation (December 21, 1942);

Catalog of Johns-Manville Insulation Materials, "More Horsepower from America's Coal pile" (1917);

Catalog No. 100, Johns-Manville Pipe and Boiler Insulation, at 10, 38 (1908);

Catalog of J-M Insulation (1916);

Manuals of J-M Service to Industry No. 102 (circa 1934);

The Power Specialist, "Deep in Texas," at 20 and Advertisement on last page (May-June 1943);

Sweet's Catalogue, Section 10/8, at 12 (1935);

Sweet's Catalogue, at D # 4688 & D # 4689 (1930);

Sweet's Catalogue, at B 2386 (1932);

Sweet's Catalogue, Section 10/55 (1938).

2250. The early history of Navy Specification 32-L-1 reveals that the manufacturers holding licenses or patents to manufacture 85% magnesia succeeded in having their formula written into the specification. Certain competing insulation companies which were not license holders of the 85% magnesia formula complained that the Navy collaborated with the license holders in writing the specifications.

Exhibits:

Memorandum from Navy Yard (Cleborne) Norfolk, Va to Commandant (October 5, 1910);

Letter from L. Hooge, The Philip Carey Co. to T. Pyne, U.S.N. Bureau of Supplies and Accounts (May 19, 1911);

Memorandum from Chief of Navy Department, Bureau of Steam Engineering to Bureau of Supplies and Accounts (July 25, 1911);

Letter from Ehret Magnesia Mfg. Co. to Navy Department Bureau of Supplies and Accounts, (June 9, 1911).

2251. As a result of these complaints, and to increase competition, in 1913 the Navy began to modify the

magnesia insulation specifications. Navy Department specification 32-L-1a, issued on September 2, 1913, required that the insulating material contain not less than the equivalent of 80% hydrated magnesium carbonate, not less than 10% of long asbestos fiber, and not more than 5% of foreign matter. The modification of 32-L-1 lead to an outcry by the license holders of the 85% magnesia formula.

Exhibits:

Navy Specification 32-L-1a Magnesia Insulating Covering or Lagging Material (September 2, 1913);

Letter from Ehret Magnesia Mfg. Co. to Navy Department Bureau of Supplies and Accounts (June 9, 1911);

Letter from Vice President of Ehret Magnesia Mfg. Co. to Capt. Kaemmerling, U.S.N., (October 29, 1913);

Letter from Keasbey & Mattison Co. to Capt. Kaemmerling, U.S.N. Bureau of Steam Engineering (October 8, 1913).

2252. This pull and tug between the license holders and those manufacturers who were not licensed to sell the 85% magnesia formula (but who sold a product which varied slightly from this formula) lead the Navy to revise the 32-L-1 specification several times between 1913 through 1918. These revisions of the magnesia insulation specifications were always consistent with industry standards and were surrounded by extensive communication with the magnesia insulation industry.

Exhibits:

Navy Specification 32-L-1b, Magnesia Insulating Covering or Lagging Material (March 2, 1914);

Letter from R. Mattison, Keasbey & Mattison Co. to Capt. Bartlett, U.S.N. (May 17, 1918);

Memorandum from F. Bartlett, Inspector of Engineering Material, U.S.N. to Bureau of Steam Engineering (May 20, 1918);

Memorandum from Chief, Bureau of Steam Engineering to Inspector of Engineering Material (May 22, 1918);

Navy Specification 32-L-1c, Magnesia Insulating Covering or Lagging Material (1918);

Memorandum from J.E. Meek, H.W. Johns-Manville Co. to G.K. Bradfield;

Memorandum from Inspector of Engineering Material to Bureau of Steam Engineering.

2253. Asbestos Magazine reported in 1919 that 85% magnesia insulated the steam lines of the large munitions factories as well as the locomotives crucial to wartime mobilization. Shortly following World War I, the magazine boasted that "thanks to the splendid publicity campaign which has been running in the interests of 85% magnesia coverings, the product has a place in the sun which will inevitably grow in importance and value as the work progresses."

Exhibit:

Asbestos Magazine, at 17 (October 1919);

Asbestos Magazine, at 4 (December 1919).

2254. The Navy's magnesia pipe covering and block insulation specifications were revised several times between 1919 and 1941, always in keeping with the best commercial practices. Throughout the evolution of these specifications various manufacturers, including Manville, submitted samples of their products to the Navy testing laboratory (EES). Based on the EES test reports, the specifications were revised to permit the purchase of the products found suitable for use in the naval service. Moreover, throughout this history, the asbestos manufacturers, including Manville, had continual interaction with the Navy and frequently influenced the way the specifications were initially drafted and subsequently revised.

Exhibits:

Navy Specification 32-M-2a (January 2, 1929);

Letter from C.W. Farly to J. Meek, Johns-Manville (June 19, 1919);

Memorandum from Head of Naval Engineering Experiment Station to Bureau of Steam Engineering (October 9, 1919);

Navy Specification 32-L-1d Magnesia Insulating Covering or Lagging Material (January 3, 1922);

Navy Specification 32-M-2 (March 2, 1925);

Memorandum from Bureau of Engineering to Commandant, Navy Yard, Mare Island, Cal. (September 16, 1926);

Letter from Sales Manager of Ehret Magnesia Manufacturing Co. to Department of Navy (June 18, 1929);

Letter from Vice President, Philip Carey Co., to Federal Specifications Board,

Letter from C.R. Schneider to M.F. Tydings (February 28, 1934);

Memorandum from J. Broshek, Bureau of Engineering to Roderder, Navy Department Specification Board (February 23, 1935);

Memorandum from O. Cox, Director U.S. Naval Engineering Experiment Station to Bureau of Engineering (August 2, 1935);

Letter from Manager Asbestos Dept., H.W. Johns-Manville Co. to Chief Construction U.S.N. (January 23, 1940).

Witness:

Leon Birnbaum.

2255. Between 1908 and 1941, the specifications required not less than 10% asbestos in magnesia pipe covering and block (23-L-1, 32-L-1, 32-M-2 and 32-P-7). In 1941 magnesia pipe covering was incorporated into the generic high temperature pipe covering specification, 32-P-8, and block into the generic high temperature block specification, 32-I-3. Neither 32-P-8 nor 32-I-3 contained any requirement for asbestos.

Exhibits:

Navy Specification for Magnesia Insulating Covering or Lagging Material, 23-L-1 (May 11, 1908);

Navy Specification for Magnesia Insulating Covering or Lagging Material, 32-L-1 (July 15, 1910);

Navy Specification 32-L-1a, Magnesia Insulating Covering or Lagging Material (September 2, 1913);

Navy Specification 32-L-1b, Magnesia Insulating Covering or Lagging Material (March 2, 1914);

Navy Specification 32-L-1c, Magnesia Insulating Covering or Lagging Material (1918);

Navy Specification 32-L-1d, Magnesia Insulating Covering or Lagging Material (January 3, 1922);

Navy Specification 32-M-2 (March 2, 1925);

Navy Specification 32-M-2a (January 2, 1929);

Bureau of Ships Ad Interim Specification 32-P-7 (INT) (March 15, 1941);

Navy Specification 32-P-7 Pipe Covering, Magnesia (October 1, 1941);

Bureau of Ships Ad Interim Specification 32-P-8 (INT), Pipe Covering, Thermal Insulation (August 1, 1942).

Bureau of Ships Ad Interim Specification 32-I-3 (INT) Insulation, Thermal, Block (August 1, 1942).

Witness:

Leon Birnbaum.

2256. Throughout the years prior to and during World War II, the Navy's specification for magnesia pipe covering and block was patterned on Manville's own manufacturing specifications for these products. For example, in December, 1932, Manville's magnesia insulation specification for pipes covering heated fluid called for not less than 95% by weight of a mixture of hydrated basic magnesium carbonate and long fiber asbestos. The mixture of

magnesia and asbestos was required to be homogeneous throughout with not less than 85% being hydrated basic magnesium carbonate and not less than 10% asbestos fiber. The comparable Navy specification (32-M-2), which was written based on industry standards, similarly required not less than 85% pure hydrated magnesium carbonate and not less than 10% asbestos fiber.

Exhibits:

Navy Specification 32-M-2 (March 2, 1925);

Johns-Manville Selected Data Sheets Giving Commodity and Application Information, at 9-B-3-A (December 1932).

Witnesses:

Leon Birnbaum;

Terry Ring.

2257. A November 4, 1937 Manville report comparing the Manville and Navy specifications for 85% magnesia pipe covering and block insulation indicates that the asbestos content required by both specifications is between 10-15%. The Manville specification allows from 83-87% magnesia compared to 85% minimum allowed by the comparable Navy specification. Manville's product samples for pipe (12.7% asbestos) and block (12.3% asbestos) were found to conform to both the Manville and Navy specifications. A July 27, 1939 Manville report confirms that the Manville and Navy

specifications for 85% magnesia pipe and block insulation required the identical asbestos content (10-15%).

Exhibits:

Johns-Manville Inspection & Control Department Report No. C-26133 (November 4, 1937);

Johns-Manville Inspection & Control Department Report No. C-66860 (July 27, 1939).

2258. A September 11, 1942 Manville report which states that an "all purpose specification for magnesia block and pipe... is recommended to be used against Navy and Federal Orders, Penn. RR and general production," indicates that Manville continued to sell the identical product to the Navy that it sold commercially during World War II. Moreover, it was common procedure for Manville to fill Navy's orders from the same material as non-Navy orders. A 1945 Manville report indicates that no segregation of material has been required and to segregate the Navy material from non-Navy material would require additional warehouse facilities.

Exhibits:

Johns-Manville Report No. C-77195 (September 11, 1942);

Johns-Manville Report No. C-84312-A (March 23, 1945).

2259. In a 1938 publication, Manville noted that paper mill steam lines were insulated with Manville 85%

magnesia blocks. The publication further indicated that in the oil industry, 85% magnesia blocks were used in field boilers and hot tanks; and in power plant equipment, 85% magnesia was used with boiler shells and drums, steam turbines, feed-water heaters, pump cylinders and chests, and brick-set boilers.

Exhibit:

Johns-Manville Report, 79 Years of Service to Industry (February 1938).

2260. Manville claimed that its 85% magnesia cement was similar in composition to its 85% magnesia sectional and block insulation. Compared with other cements, its efficiency was high, but it was not recommended as a finishing cement.

Exhibit:

Sweets Catalogue, Section 5-8 at 12 (1935).

2261. The Navy procurement specification for 85% magnesia cement was also substantially the same as Manville's manufacturing specification for this product. A January 8, 1943 Manville report shows that the Manville specification called for 10-15% asbestos and a minimum of 85% magnesia. Navy specification 32-P-2 likewise required a minimum of 10% asbestos and a minimum of 85% magnesia.

Exhibits:

Bureau of Ships Ad Interim Specification 32-P-2 (INT), Plaster Magnesia (May 31, 1910);

Johns-Manville Report No. C-77904 (January 8, 1943).

Witnesses:

Leon Birnbaum;

Terry Ring.

2262. The Navy did not always require strict adherence to its specifications. In fact, Manville occasionally filled Navy orders with magnesia products which contained more asbestos than the Navy specification required. For example, a September 21, 1941 Manville report noted that certain Navy orders were filled with products which contained 81.9% magnesia (the Navy specification required 85% minimum) and 14.8% asbestos (the applicable Navy specifications required 10% minimum).

Exhibit:

Johns-Manville Report C-77453 (October 21, 1942).

Witness:

Leon Birnbaum.

2263. During the 1930's and early 1940's C.J. Stover, originally associated with Philip Carey and founder of Asbestos Magazine, held the patent for 85% magnesia pipecovering, block insulation and cement. He licensed six

manufacturers, including Manville, to manufacture and distribute these products. As noted in Volume I of these Proposed Findings, supra, a Justice Department investigation revealed that Stover fixed minimum prices at which the companies could sell the 85% magnesia products and that the minimum prices for the United States were higher than the prices for certain other purchasers.

Exhibits:

Asbestos Magazine, at 1 (November 1929);

Letter from Thurman Marshall, Assistant Attorney General to Honorable Leon Henderson (August 20, 1942).

2264. After 1942, Manville's magnesia pipe covering insulation and other pipe covering insulation products were sold to the Navy in accordance with BuShips and Navy Department Specification 32-P-8, which simply required that thermal insulation pipe covering be composed of heat resisting compounds suitable for the temperature conditions and for the intended purpose.

Exhibit:

Bureau of Ships Ad Interim Specification 32-P-8 (INT), Pipe Covering, Thermal Insulation (August 1, 1942).

2265. Specification 32-P-8 was intended to cover all pipe covering insulation products for all grades and classes. The specification was issued in Navy Department

form on June 1, 1944, superceding part of 32-P-3d, part of 32-P-6, and part of 32-P-7. Asbestos was not specified as a material requirement in any part of specification 32-P-8.

Exhibit:

Navy Specification 32-P-8 Pipe Covering, Thermal Insulation (June 1, 1944).

Witness:

Leon Birnbaum.

2266. The Navy frequently received, requested and incorporated comments, criticisms and suggestions by the manufacturers with respect to testing of products for compliance with 32-P-8 and subsequent revisions of the specification.

Exhibits:

Letter from Ruberoid Co. Mfg. Insulation Division to Chief Engineer, U.S. Maritime Commission (April 27, 1943);

Letter from Ruberoid Co. Mfg. Insulation Division to Chief Engineer, U.S. Maritime Commission (June 6, 1943);

Letter from Vice President of the Philip Carey Mfg. Co. to Bureau of Ships, U.S. Navy Department (April 12, 1944);

Memorandum from Bureau of Ships to Director, Engineering Experiment Station (April 4, 1944);

Memorandum from Director, U.S. Naval Engineering Experiment Station to Bureau of Ships (August 24, 1944);

Letter from C. Frederick, Sales Engineer, Keasbey & Mattison Co. to Navy Department Bureau of Ships (September 11, 1944);

Letter from Mgr., Insulation Division, The Ruberoid Co. to F. McGeary, Bureau of Ships (January 31, 1945);

Letter from Chief of Bureau of Ships to J. High, The Ruberoid Co. (February 15, 1945);

Letter from Mgr. Insulation Division, the Ruberoid Co. to A. MacGee, Navy Department Bureau of Ships (February 28, 1945);

Letter from Bureau of Ships to the Ruberoid Co. (April 12, 1945);

Letter from Bureau of Ships to the Ruberoid Co. to F. McGeary, Bureau of Ships (April 12, 1945);

Letter from Bureau of Ships to Johns-Manville et al. (Sept. 16, 1943);

Letter from J. Clifford, Government Dept., Johns-Manville, to Navy Dept., Bureau of Ships (September 22, 1943).

Witness:

Leon Birnbaum.

2267. In the words of one manufacturer, 32-P-8 made life easier by outlining the specifications required for an insulating material without mentioning any particular type of products, "leaving it to the manufacturer to provide the type of material that will satisfy the requirements and best suit the manufacturing facilities."

Exhibit:

Letter from Ruberoid Co. Mfg. Insulation Division to Chief Engineer, U.S. Maritime Commission (June 6, 1943).

2268. In 1945, Manville boasted that it had assisted the Navy in formulating a packaging specification for 85% magnesia that would satisfy both the manufacturers and the Navy. By 1946, Manville's 85% magnesia was described as being the standard for the industry.

Exhibits:

R. C. Simmons, J-M Government Department Progress Report for the Year 1945, at 153 (1945);

Advertisement in The Power Specialist (July-August 1946).

(ii) Superex Pipe Covering and Block

2269. 85% magnesia was universally adopted by industry for low and medium temperature use, but at temperatures over 600' F. it has a tendency to calcine on the surface next to the source of heat. This calcined deposit of magnesium oxide proved to be mechanically weaker than 85% magnesia.

Exhibit:

"Still Does the Best Job," Asbestos Magazine at 7 (Spring 1947).

2270. As the demand increased for an insulation which could withstand temperatures above 600' F., this demand was met by the use of diatomaceous earth in combination with asbestos fiber. Diatomaceous earth - sometimes referred to as Celite or Kieselguhr - is a mineral

of highly siliceous composition and of very light weight found in Lompoc, California in an exceptionally pure state.

Exhibit:

Elsenbast, History of the Johns-Manville Celite Diatomaceous Silica Industry of Lompoc, California From 1893 to 1942, at 16 (1942).

Witness:

Terry Ring.

2271. Navy Department Specification 32-P-3 was the first Navy specification for diatomaceous earth pipe covering and block insulation. Its issuance in 1927 followed years of testing commercial products submitted by several manufacturers (including Manville) and interaction between the manufacturers and the Navy.

Exhibits:

Navy Department Specification 32-P-3, Pipe-covering, Diatomaceous Earth, Molded (February 1, 1927);

Memorandum from Officer-in-Charge, Experiment Engineering Station to Bureau of Engineering (December 3, 1925);

Letter from Celite Products Co. to Navy Department, Bureau of Engineering (February 8, 1924);

Letter from Engineering Experiment Station to Norristown Magnesia and Asbestos Co. (February 12, 1924);

Letter from Johns-Manville to Navy Department Bureau of Engineering (March 8, 1924);
Letter from Philip Carey Co. to Navy Department, Bureau of Engineering (May 16, 1924);

Letter from Bureau of Engineering to Officer-in-Charge, Naval Engineering Experiment Station (May 27, 1924);

Letter from Navy Department, Bureau of Engineering to Plant Rubber & Asbestos Works (June 21, 1924);

Letter from Plant Rubber & Asbestos Works to Navy Department, Bureau of Engineering (December 29, 1924);

Letter from Navy Department, Bureau of Engineering to Plant Rubber and Asbestos Works (January 10, 1925);

Letter from Keasbey & Mattison Co. to Navy Dept., Bureau of Engineering (November 5, 1924);

Letter from Navy Department, Bureau of Engineering to Keasbey & Mattison Co. (November 13, 1924);

Letter from Navy Department, Bureau of Engineering to Keasbey & Mattison Co. (November 20, 1924);

Letter from Philip Carey Co. to Navy Department.

Witness:

Leon Birnbaum.

2272. Manville began producing insulation with diatomaceous earth in the early 1920's and soon became the leading producer not only of 85% Magnesia but also of high temperature insulation containing diatomaceous earth and asbestos.

Exhibits:

Asbestos-Containing Industrial Thermal Insulation and Asbestos-Containing Shipyard Products (undated);

Johns-Manville Bulletin No. 64996 (June 10, 1923);

Johns-Manville Bulletin No. 6589 (March 20, 1924);

Johns-Manville Bulletin No. 6669 (February 7, 1925);

Johns-Manville Engineering Report #21-910 (1925);

Johns-Manville Engineering Report #892 (1925);

Johns-Manville Engineering Report (August 4, 1926);

Johns-Manville Bulletin No. 6825 (September 9, 1926);

"Still Does the Best Job," Asbestos Magazine, at 7 (Spring 1947).

2273. In 1924 Manville entered into a licensing agreement with the National Magnesia Mfg. Co. to sell Fire Backing blocks and High Temperature pipe insulation manufactured by the latter. Within a year, Manville announced that the contract with the National Magnesia Mfg. Co. was cancelled and that a better product was being developed in Manville's own plants to replace it. The new product was to be called Johns-Manville High Temperature Insulation and would resist temperatures up to 1500' F. The High Temperature Insulation was described as consisting principally of diatomaceous earth of the best quality and long fiber asbestos.

Exhibits:

Johns-Manville Bulletin No. 6589 (March 20, 1924);

Johns-Manville Bulletin No. 6669 (February 7, 1925).

2274. On September 9, 1926, Manville announced that its High Temperature Insulation would be known as Johns-Manville Superex Insulation, and that correspondence and factory orders would henceforth use the words "Superex Pipe Covering," or "Superex Blocks."

Exhibit:

Johns-Manville Bulletin No. 6885 (September. 9, 1926).

2275. In January, 1924, the Navy's Bureau of Engineering invited various firms to submit materials for EES testing for use as pipe coverings and lagging materials for temperatures between 500' and 700' F. Materials were submitted by several manufacturers, including Manville. The invitation by Bureau of Engineering was precipitated by suggestions by certain manufacturers that the Navy develop a specification on diatomaceous earth, since it had higher insulating efficiency at lower costs.

Exhibits:

Letter from Celite Products Co. to Navy Department, Bureau of Engineering February 8, 1924);

Letter from Engineering Experiment Station to Norristown Magnesia and Asbestos Co. (February 12, 1924);

Letter from Johns-Manville to Navy Department, Bureau of Engineering (March 8, 1924);

Letter from Philip Carey to Navy Department, Bureau of Engineering (May 16, 1924);

Letter from Bureau of Engineering to Officer-in-Charge, Naval Engineering Experiment Station (May 27, 1924);

Letter from Navy Department to Plant Rubber & Asbestos Works (June 21, 1924);

Letter from Plant Rubber & Asbestos Works to Navy Department, Bureau of Engineering (December 29, 1924);

Letter from Navy Department, Bureau of Engineering (January 10, 1925);

Letter from Celite Products Co. to Navy Department, Bureau of Supplies & Accounts (June 5, 1923).

2276. Manville played a major role in the Navy's development of the diatomaceous earth specification, in order to ensure that it was written to include Superex Pipe and Block insulation products. For example, Manville informed the Bureau of Engineering that under the detailed requirements of the specification, the Bureau of Engineering was allowing for too much depreciation of the material when subjected to a temperature of 750'F., and that their material, when subjected to such heat, is 33.5% below the requirements of the proposed specification. Manville added that their material was satisfactory under all other requirements of the specification. The Bureau of Engineering also received several comments from the other manufacturers whose diatomaceous earth products had been tested.

Exhibits:

Letter from Johns-Manville to Navy Department, Bureau of Engineering (August 6, 1926);

Letter from Keasbey & Mattison Co. to Navy Department, Bureau of Engineering (August 3, 1926);

Letter from Armstrong Cork & Insulation Co. to Navy Department, Bureau of Engineering (August 12, 1926);

Letter from Celite Products Co. to Navy Department, Bureau of Engineering (November 24, 1926).

2277. 32-P-3, issued February 1, 1927, required a chemical composition minimum of at least 50% diatomaceous earth, 4% asbestos and the remainder hydrated magnesium carbonate or hydrated calcium carbonate or both.

Exhibit:

Navy Specification 32-P-3, Pipe-covering, Diatomaceous Earth, Molded (February 1, 1927).

2278. The Navy requested and received comments and criticisms from the manufacturers throughout the process of developing this specification and 32-P-3 was shaped largely by this industry participation.

Exhibits:

Letter from Bureau of Engineering to Celite Products Co. (July 22, 1926);

Letter from Bureau of Engineering to Armstrong Cork & Insulating Co., Johns-Manville Co., Inc. and Keasbey & Mattison Co. (July 22, 1926);

Letter from Keasbey & Mattison Co. to Navy Department, Bureau of Engineering (August 3, 1926);

Letter from Armstrong Cork & Insulation Company to Navy Department, Bureau of Engineering (Aug. 6, 1926);

Letter from Armstrong Cork & Insulation Co. to Navy Department, Bureau of Engineering (August 12, 1926);

Letter from Celite Products Co. to Navy Department, Bureau of Engineering (November 24, 1926).

Witness:

Leon Birnbaum.

2279. In 1933, 32-P-3a was issued superceding 32-P-3. 32-P-3a specified performance goals, requiring only that the material be composed of a suitable heat resisting compound. Asbestos was not a required ingredient for 32-P-3a.

Exhibit:

Navy Specification, Insulation, High Temperature (Pipecovering, Blocks and Cement), 32-P-3a (Undated).

Witness:

Leon Birnbaum.

2280. Between 1927 and 1942 (when 32-P-3 was merged into 32-P-8), the specification was revised several times, always in the context of continual interaction between the Navy and the manufacturers. For example, on February 9,

1934, the Bureau of Engineering informed Manville that all of their suggestions on the draft of 32-P-3a had been incorporated except for one.

Exhibits:

Navy Specifications, Insulation, High Temperature (Pipe covering, Blocks, and Cement) 32-P-3a;

Navy Specification, Insulation, High Temperature: Blocks, Cement and Pipe Covering, 32-P-3b (March 1, 1935);

Bureau of Engineering Specification, Insulation, High Temperature, Blocks and Pipe-Covering, 32-P-3 (INT) (March 1, 1937);

Navy Specification, Insulation, High Temperature, Blocks and Pipe-covering, 32-P-3C (January 3, 1938);

Bureau of Engineering Specification, Insulation, High-Temperature, Blocks and Pipe-Covering, 32-P-3 (INT) (January 15, 1939);

Navy Specification, Insulation, High Temperature: Blocks and Pipe Covering, 32-P-3d (November 1, 1939);

Navy Specification 32-P-3e, Insulation, High-Temperature Blocks and Pipe-Covering (October 1, 1940);

Bureau of Ships Ad Interim Specification, Pipe Covering, High Temperature, Insulation 32-P-3 (INT) (June 15, 1941);

Bureau of Ships Ad Interim Specification, Pipe Covering, Thermal Insulation, 32-P-8 (INT) (August 1, 1942);

Letter from Navy Department, Bureau of Engineering to Johns-Manville, Inc. (August 31, 1933);

Memorandum from Bureau of Engineering to Director, Engineering Experiment Station (September 1, 1933);

Letter from Bureau of Enginerring to Ehret Magnesia Mfg. Co. (September 13, 1933);

Letter from Bureau of Engineering to Johns-Manville, Inc. (November 3, 1933);

Letter to Philip Carey Co. (November 29, 1933);

Letter from Keasbey & Mattison Co. to Navy Department, Bureau of Engineering (January 24, 1934);

Letter from Navy Department, to Johns-Manville, Inc. (February 9, 1934);

Letter from Ehret Magnesia Mfg. Co. to Navy Department, Bureau of Supplies & Accounts (February 7, 1941);

Memorandum from Chief of the Bureau of Supplies and Accounts to Chief of the Bureau of Ships (February 13, 1941);

Letter from Navy Department, Bureau of Supplies & Accounts to Ehret Magnesia Mfg. Co. (February 27, 1941);

Memorandum from Bureau of Engineering and Bureau of Construction and Repair to Bureau of Supplies and Accounts (June 6, 1940);

Memorandum from Chief of the Bureau of Ordnance to Bureau of Supplies and Accounts (June 18, 1940);

Memorandum from Chief of the Bureau of Yards and Docks to Bureau of Supplies and Accounts (June 1940);

Memorandum from Chief of Bureau of Supplies and Accounts to Chief of the Bureau of Ships (June 26, 1940);

Memorandum from Bureau of Ships to Bureau of Supplies and Accounts (July 10, 1940).

Witness:

Leon Birnbaum.

2281. The Navy did not always strictly enforce the requirements of 32-P-3. On November 1, 1934, the Bureau of Engineering requested EES' recommendations on (i) accepting Manville's improved Superex Block despite its failing the hardness test and (ii) revising the specification to alter the hardness requirements. EES agreed and suggested amending 32-P-3a to change the hardness requirement for block. On December 6, 1934, Manville was sent a certificate of Approval for Superex High Temperature Heat Insulating Block.

Exhibits:

Memorandum from Bureau of Engineering to Director, Engineering Experiment Station (November 1, 1934);

Memorandum from Director to Bureau of Engineering (November 26, 1934);

Letter from Bureau of Engineering to Johns-Manville, Inc. (December 6, 1934).

Witness:

Leon Birnbaum.

2282. Throughout the years during and prior to World War II, Manville's Superex products were widely used on the commercial market. Manville boasted that ever since its introduction, Superex has demonstrated its versatility as a high temperature insulation: "[I]t economically insulates 90% of the country's hot blast stoves and has proved its superiority as an insulation for most types of

industrial and metallurgical furnaces and ovens, soaking pits, high temperature mains and flues, stationary and marine boilers, regenerators, kilns and roasters."

Exhibit:

Johns-Manville Product Brochure, Superex Block Insulation (undated).

Witness:

Terry Ring.

2283. In June 1931, Sweet's Catalogue described regular Superex as the most adaptable material for insulating surfaces where the material applied must resist temperatures between 600' and 1600' F. It was described as combination of diatomaceous silica and asbestos fibre, bonded together, producing an insulation with both high heat resistance and exceptional insulating value.

Exhibit:

Superex Pipe Insulation (Sweet's Catalogue, June 1931).

2284. In 1938, Manville began a trial production of "Navy Superex," in which Amosite D fiber was substituted for C and D, resulting in a product which passed the requirements for Navy Department Specification 32-P-3. Within a year a new Superex formula was developed by Manville's production department which was designed to replace both the former "Regular" and "Navy" Superex.

Exhibits:

Johns-Manville Inspection and Control Department, Report No. C-64334 (December 10, 1938);

Johns-Manville Inspection and Control Department, Report No. C-65452 (March 30, 1939).

2285. Neither the designation of "Navy Superex" nor the continuing evolution of product formulas meant that Manville was developing a distinct product line for the Navy. For example, in 1940, Manville announced the development of its new improved high temperature insulation, Light Weight (L-W) Superex for pipe coverings and blocks at temperatures up to 1500' F. All pipe coverings and block orders would be obtainable in both the new L.W. Superex as well as the 1900' F. Superex. The 1900' F. material would be known as H-T (High Temp.) Superex. Manville further mentioned that L-W Superex in both block and pipe covering form had been approved by the U.S. Navy and was being used in connection with the rearmament program. Manville requested that the Navy change the designation of its L-W Superex to Low Weight Superex insofar as this was the trade name under which the material was being sold. Manville also requested that Superex be reinstated under the trade name of H-T Superex, since such was the commercial designation under which the material was being manufactured and sold.

Exhibits:

Johns-Manville Sales Bulletin announcing L-W Superex, A New 1500' High Temperature Insulation (August 21, 1940).

Letter from Johns-Manville to Navy Department, Bureau of Ships (October 29, 1940).

Witnesses:

Leon Birnbaum;

Terry Ring.

2286. The Navy did not always enforce strict adherence to its specifications. For example, Manville noted in April 1940 that its L.W. Superex pipe covering on current orders failed to pass Navy specification 32-P-3d with respect to hardness and loss or ignition after firing for 6 hours at 850' F. The Navy waived the hardness requirement with respect to these orders.

Exhibit:

Johns-Manville Inspection and Control Department, Report C-70006 (April 5, 1940).

Witness:

Leon Birnbaum.

2287. On October 1, 1940, Navy Department specification 32-P-3e was issued superceding 32-P-3d. This revision changed the temperature at which the heating test to determine hardness was conducted, and changed the packing

requirements to include fiber containers since it was the commercial practice.

Exhibits:

Navy Department Specification, Insulation, High Temperature: Blocks and Pipe Covering, 32-P-3e (October 1, 1940);

Memorandum to Purchase Division from Stock Division (August 6, 1940).

2288. The asbestos manufacturers continually influenced the revisions of Navy specification 32-P-3 throughout the war. On February 7, 1941, Ehret Magnesia Mfg. Co. inquired of the Navy as to why the heating limit was changed for only one test (hardness) and not for the other tests. The Navy informed Ehret that the specification would be revised to correct the omission.

Exhibits:

Letter from Ehret Magnesia Mfg. Co. to Navy Department, Bureau of Supplies & Accounts (February 7, 1941);

Letter from Navy Department to Ehret Magnesia Mfg. Co. (February 27, 1941).

Witness:

Leon Birnbaum.

2289. After 1942, Johns-Manville's Superex pipe covering was sold to the Navy in compliance with specification 32-P-8 and its Superex Block insulation was

sold in compliance with specification 32-I-3. Both of these specifications specified performance goals, requiring that the "thermal block insulation shall be composed of heat resisting compounds suitable for the temperature conditions and for the purpose intended." Asbestos was not specified as a material requirement in any part of specifications 32-P-8 or 32-I-3.

Exhibits:

Johns-Manville Inspection and Control Department, Report No. C-82797 (September 11, 1944);

Navy Specification, Pipe Covering, Thermal Insulation, 32-P-8 (June 1, 1944); Bureau of Ships Ad Interim Specification, Insulation, Thermal, Block, 32-I-3 (INT) (August 1, 1941).

Witness:

Leon Birnbaum.

2290. From time to time, Manville was forced to find a substitute for Amosite fibre blend in its Superex products, not only to meet Navy requirements but so that the finished product would meet Manville's own requirements as well. For example, in 1944 Manville successfully substituted for Amosite fibre blend in H.T. Superex, which resulted in an H.T. Superex which Johns-Manville happily acknowledged "meets not only Navy Specification 32-I-3 for Blocks and 32-P-8 for Pipe covering but also essentially

complies with the original Manville sales requirements for this product."

Exhibit:

Johns-Manville Inspection and Control Department, Report No. C-82797 (September 11, 1944).

Witness:

Terry Ring.

(iii) Superex Cement and No. 450 Cement

2291. In the late 1920's, Johns-Manville began producing several types of high temperature insulating cements. Superex Cement was made of Superex insulation (combination diatomaceous earth and asbestos fibers). No. 450 cement was composed of nodulated mineral wool fibers, asbestos fibers and binders. The overall asbestos content of these products ranged between 6% - 8% for Superex cement and between 13% - 15% for No. 450 cement. Both products were recommended for insulating irregular surfaces where blocks could not be readily applied.

Exhibits:

Johns-Manville Materials for Marine Service Boiler and Engine Room Materials (December 1937);

Engineering Experiment Station Report (July 27, 1936);

Letter from G.A. Nicol, Jr. Johns-Manville Corp. to Bureau of Engineering (April 7, 1928);

Johns-Manville Research Laboratories Report No. 14-190 (January 15, 1941).

2292. Mr. H.W. Johns, founder of Johns-Manville, had been selling asbestos pipe covering cements as far back as 1868.

Exhibit:

J.J. Hayes, Jr., Corporate Marketing Services, History Sales and Marketing Manville, at 3.

2293. Both Superex Cement and No. 450 cement were developed for commercial uses. No. 450 cement was originally intended for hot surfaces and its marine use for bulkhead fire screens was a relatively recent development. Superex Cement (like Superex pipe covering and block insulation) was used for a wide variety of commercial purposes.

Exhibits:

Johns-Manville Product Brochure, Superex Block Insulation (undated);

Letter from E. Rinehart, Johns-Manville Sales Corp. to E.L. Lasier, U.S. Maritime Commission (May 17, 1940).

Witness:

Terry Ring.

2294. Superex Cement was found suitable for use in the Naval service by the Navy's testing station (EES) in 1928 and periodically thereafter, in compliance with Navy

Specifications 32-P-3 (1927), 32-P-3a (1934) and 32-P-3b (1935).

Exhibits:

Letter from G.A. Nicol, Jr., Johns-Manville Corp. to Bureau of Engineering (April 7, 1928);

Letter from G.A. Nicol, Jr. Johns-Manville Corp to Bureau of Engineering (May 11, 1928);

Memorandum from O.L. Cox, Bureau of Engineering to Officer-in-Charge, Engineering Experiment Station (May 17, 1928);

Johns-Manville Research Laboratories Report No. 14-190 (January 15, 1941);

Engineering Experiment Station Report No. 3390 (July 18, 1928).

2295. In March, 1933, the Navy's Bureau of Engineering authorized EES to determine (1) the suitability of several types of high temperature insulating cements for naval service; (2) to develop an acceptable list of heat insulating cements; and (3) to prepare a specification for insulating cements.

Exhibit:

Engineering Experiment Station Report No. 5924 (November 12, 1936).

2296. On December 1, 1937, the Navy Department issued Specification 32-C-14, covering asbestos insulating cement and superceding part of 32-P-3b. 32-C-14 required that insulation cement be composed of a dry mixture of suitable refractory material ground fine, asbestos fibers

and clay binders. The original specification specified three types of insulating cement: (a) diatomaceous earth; (b) mineral or rock wool; and (c) exfoliated mica.

Exhibit:

Navy Specification 32-C-14, Cement, Insulation, High Temperature (December 1, 1937).

2297. The issuance of Navy Department specification 32-C-14 followed approximately four years of testing of product samples submitted to the Navy by several manufacturers, including Manville. The compositional and material requirements of the specification reflected the compositional nature of the products submitted by the manufacturers for testing.

Exhibits:

Letter from J.B. Cox, Naval Engineering Experiment Station to J.J. Reynolds, Johns-Manville (September 20, 1934);

Naval Engineering Experiment Station Report No. 7956 (September 25, 1936);

Naval Engineering Experiment Station Report No. 5921 (1) (November 19, 1936);

Naval Engineering Experiment Station Report No. 5924 (2) (November 19, 1936);

Naval Engineering Experiment Station Report No. 5924 (4) (November 20, 1936);

Naval Engineering Experiment Station Report No. 5924 (5) (November 24, 1936);

Naval Engineering Experiment Station Report No. 5926 (6) (November 25, 1936);

Naval Engineering Experiment Station Report No. 5926 (7) (November 25, 1936).

Witnesses:

Leon Birnbaum;

Terry Ring.

2298. On November 19, 1936, EES Test Report No. 5924(1) found Johns Manville No. 500 cement, Johns-Manville No. 450 cement, and Johns-Manville Superex Cement suitable for use in the naval service, and Manville was issued a Certificate of Approval under 32-C-14 (INT) on January 7, 1937, for three types of insulating cement products: Johns-Manville Superex (type A), Johns-Manville No. 450 (type B) and Johns-Manville No. 500 (type C).

Exhibits:

Naval Engineering Experiment Station Report No. 5924 (1) (November 19, 1936);

Memorandum from R.W. Bruner, Bureau of Engineering to Bureau of Supplies and Accounts (January 7, 1937).

2299. Navy specification 32-C-14 was revised eight times following its initial issuance in 1937, until superceded by Military Specification 2861 on August 23, 1951. None of the revisions changed the material or compositional requirements of the initial specification.

Exhibits:

Navy Specification 32-C-14a, Cement, Insulation, High-Temperature (April 1, 1939);

Navy Specification 32-C-14b, Cement, Insulation, High-Temperature (October 1, 1941);

Navy Specification 32-C-14(INT), Cement, Insulation, High-temperature (June 15, 1942);

Navy Specification 32-C-14d, Cement, Insulation, High-Temperature (November 2, 1942);

Navy Dept. Specification 32-C-14h, Cement, Insulation, High-Temperature (April 1, 1946);

Mil-Spec-MC 2861, Cement, Insulation, High-Temperature (August 23, 1951).

2300. All revisions of Navy specification 32-C-14 were accompanied by intense interaction between the asbestos manufacturers and the Navy. For example, a 1941 revision of 32-C-14 required all cements to pass a corrosion test. This revision followed Manville's advice to the Navy that it had developed a corrosion inhibitor for its cements which was highly appropriate for naval use.

Exhibits:

Letter from California Vermiculite Corp. to Bureau of Supplies and Accounts (December 7, 1940);

Letter from the Bureau of Ships to California Vermiculite Corp. (February 27, 1941);

Letter from R.A. Greenbow, Johns-Manville Sales Corp. to Bureau of Ships (December 17, 1941);

Letter from J.F. Nicholas, Keasbey and Mattison Co. to Bureau of Engineering (November 25, 1940);

Letter from the Naval Engineering Experiment Station to Keasbey and Mattison Co. (January 30, 1941);

Memorandum from Ross, Naval Engineering Experiment Station to Bureau of Ships (November 15, 1940);

Memorandum from Bureau of Ships to Naval Engineering Experiment Station (January 15, 1941).

Witnesses:

Leon Birnbaum;

Terry Ring.

2301. During World War II, Manville began experiencing difficulty in getting its regular Superex Cement to meet the requirements of Navy specification 32-C-14 with respect to structural strength, original hardness and hardness after soaking. In order to retain a share of the competitive market for Navy business, Manville began producing a modified version of Superex Cement which it labeled "Superex Cement for Navy," and which met the requirements of specification 32-C-14.

Exhibit:

Johns-Manville Inspection and Control Dept. Report No. C-78705 (April 27, 1943).

Witness:

Terry Ring.

2302. Manville also experienced some difficulty in getting its No. 450 cement to pass all of the tests related

to specification 32-C-14. At least eight other companies were selling rock wool cement both commercially and to the Navy, and EES had notified Eagle Picher that its Super 66 cement had out-performed other products with respect to corrosion standards. In order to retain a share of the competitive market for Navy business, Manville began producing a modified version of No. 450 cement which it called "No. 450 cement for Navy."

Exhibits:

Letter from Bureau of Engineering to Eagle-Picher Lead Co. (October 29, 1940);

Letter from Bureau of Engineering to Johns-Manville Sales Corp.(Ocotober 29, 1940);

Johns-Manville Research Laboratories Report No. 14-225 (September 15, 1941).

Witness:

Terry Ring.

(iv) Asbestos Cloth

2303. Navy Specification 32-C-11 was issued on May 1, 1933 covering asbestos cloth furnished in one grade but two types: (a) plain weave and (b) twill weave. The Navy used asbestos cloth in a number of ways including insulation and pipe lagging. The initial specification required 90% long Asbestos fiber for both types.

Exhibit:

Navy Specification 32-C-11, Cloth, Asbestos (May 1, 1933).

2304. Asbestos cloth, described as a "soft flexible textile, resistant to heat and chemicals, and manufactured from asbestos yarn," had been used since the late 19th century for innumerable industrial purposes. The steam engine and the automobile are considered "the major underlying factors in the development of the asbestos textile industry in this country and in Europe."

Exhibits:

Pocket Abstract of the J-M Sales Manual, at 78 (December 1936);

J.A. Bettes, Jr., "The History of the Asbestos Textile Industry in the United States", Asbestos (August 1970).

Witness:

Terry Ring.

2305. As early as 1877 the Johns Textile Mill in Brooklyn, New York (predecessor to Manville) started using Canadian chrysotile asbestos fiber. Until 1888, asbestos cloth was hardly known in the United States. It was said that "Mr. Johns imported four or five yards at a time and carefully guarded it in the office safe." The Johns plant in Brooklyn is credited with responsibility for designing the first asbestos curtains used in the United States.

Exhibit:

J.A. Bettes, Jr., "The History of the Asbestos Textile Industry in the United States", Asbestos (August 1970).

2306. Manville attempted to sell asbestos cloth to the Navy for a variety of uses as early as 1918-1919.

Exhibits:

Letter from J.E. Meek, H.W. Johns-Manville Co. to Lt. Cmdr. H. G. Knox, Construction Corp., Portsmouth, Va. (December 19, 1918); Letter from Lt. Cmdr. H.G. Knox, Construction Corps. to Johns-Manville Co. (undated);

Letter from J.E. Meek, H.W. Johns-Manville Co. to Lt. Cmdr. H.G. Knox, Construction Corps. (February 19, 1919);

Letter from Lt. Cmdr. Sheppard, Corp of Engineers to H.W. Johns-Manville Co. (undated);

Letter from Taylor, Bureau of Construction and Repair to Commandants and Industrial Managers, et al. (March 10, 1919).

2307. In a 1931 sales publication, Manville described some of the many uses for asbestos cloth, including blankets for covering large metal castings, clothing (including asbestos jumpers, overalls, aprons, helmets, hats, caps, shoes, arm protectors, mittens, gloves), rope insulation on diesel exhaust pipes, curtains for dryers, fireproof curtains, fire smothering blankets for oil refineries, fire departments, gas stations, dry cleaning establishments, varnish plants and theater curtains.

Exhibit:

Johns-Manville Product Data Sheet, Asbestos Cloth Uses and Asbestos Clothing (January 1931).

Witness:

Terry Ring.

2308. In the 1930s, Manville also described its asbestos pipe blankets as suitable for pipes, fittings and flanges where inspection is made frequently and necessitates removal of the insulation for marine service. Manville recommended asbestos cloth instead of canvas as a finish for pipe insulation wherever a fire hazard exists.

Exhibits:

Johns-Manville Product Data Sheet, J-M Asbestos Pipe Blankets (June 1931);

Johns-Manville Materials for Marine Service, Insulation in Marine Service (November 1937), Boiler and Engine Room Materials (December 1937);

Johns-Manville Product Data Sheet, Asbestos Blankets (August 1937).

2309. Manville's Canadian plant manufactured all kinds of asbestos yarns. Manville sold its asbestos products to numerous commercial customers, and was required to meet a host of private customer specifications.

Exhibit:

A.D. Tocter, Product Histories, Textiles, Asbestos Plant (November 23, 1955).

Witness:

Terry Ring.

2310. The Navy revised specification 32-C-11 many times between the initial issuance in 1933 and its cancellation in 1948, continually increasing and changing the types and styles of asbestos cloth covered by the specification.

Exhibits:

Navy Specification 32-C-11, Cloth, Asbestos (May 1, 1933);

Navy Specification 32-C-11 (INT), Cloth, Asbestos (June 20, 1936);

Navy Specification 32-C-11(a), Cloth, Asbestos (January 2, 1937);

Navy Specification 32-C-11(INT), Cloth and Strands, Asbestos (September 1, 1937);

Navy Specification 32-C-11(b), Cloth and Strands, Asbestos (July 1, 1938);

Navy Specification 32-C-11(INT), Cloth and Strands, Asbestos (October 1, 1938);

Navy Specification 32-C-11(c), Cloth and Strands, Asbestos (November 1, 1939);

Navy Specification 32-C-11(INT), Cloth and Strands, Asbestos (October 1, 1940);

Navy Specification 32-C-11(INT), Cloth, Strands, and Tape, Asbestos (December 15, 1941);

Navy Specification 32-C-11(INT), Cloth, Strands, and Tape, Asbestos (August 1942);

Navy Specification 32-C-11(INT), Cloth, Strands, and Tape, Asbestos (May 15, 1943);

Navy Specification 32-C-11(INT), Cloth, Strands, and Tape, Asbestos (October 1, 1943);

Navy Specification 32-C-11(d), Cloth, Strands, and Tape, Asbestos (November 1, 1944).

2311. Throughout the evolution of specification 32-C-11, the asbestos manufacturers, including Manville, were frequently contacted and asked for comments regarding the substance of the revisions of the specification. For example, in 1932 during the course of issuing the initial version of specification 32-C-11, the Navy wrote to Manville enclosing a copy of the proposed specification and seeking information as to thicknesses and weight of cloth regularly produced.

Exhibits:

Letter from Bureau of Engineering to Johns-Manville Corp. (1932);

Letter from H.F.D. Davis, Bureau of Engineering to Carolina Asbestos Co. (February 2, 1933);

Letter from H.F.D. Davis, Bureau of Engineering to Southern Asbestos Co. (February 25, 1933);

Letter from J.M. Weaver, General Asbestos and Rubber Division of Raybestos-Manhattan, Inc. to F.M. McGeary, Bureau of Engineering (March 29, 1935);

Letter from H.H. Crowell, Keasbey and Mattison Co. to Cmdr. R.N.S. Baker, Bureau of Construction and Repair (April 29, 1935).

Witness:

Leon Birnbaum.

2312. During World War II, the use of asbestos cloth was generally restricted to pipes with temperatures of more than 500° F., due to the need for industry to conserve this critical material for the aircraft program.

Exhibits:

A.D. Tocter, Product Histories, Textiles, Asbestos Plant (November 23, 1955);

Memorandum for file from H.P. Webster, U.S. Navy Yard, Boston (April 3, 1943).

2313. After World War II (from 1945 to 1950), Johns-Manville acknowledged that "business in asbestos textiles did not let down as much as expected, for requirements increased due to a backlog of necessities in the electric line and auto industries and other essential commodities in general."

Exhibit:

A.D. Tocter, Product Histories, Textiles, Asbestos Plant (November 23, 1955).

(v) Firefelt; Roll Firefelt

2314. Navy Department Specification 32-F-1, issued on December 5, 1912, dealt with asbestos felt for use as sheet-iron backing (in sheet and block form) as well as coverings for pipe and fittings.

Exhibit:

Navy Specification 32-F-1, Asbestos Felting (December 5, 1912).

2315. Asbestos Fire Felt was first manufactured by the H.W. Johns Manufacturing Co. in 1891. It was produced in various shapes and forms, including pipe covering, blocks, locomotive boiler lagging, flange covers, fitting covers and valve covers. Capable of withstanding temperatures up to 1000' F., Fire Felt was utilized for commercial uses by the steel and oil industries from 1891.

Exhibits:

Asbestos Containing Industrial Thermal Insulation and Asbestos Containing Shipyard Products (undated);

H.A. Kieselbach, Insulation, Report to Johns-Manville Officers Board (December 21, 1942).

2316. In 1898, seven years after the product had first been sold commercially, H.W. Johns began to market its Fire Felt product to the Navy. H.W. Johns introduced Fire Felt to the Navy "as possessing qualities peculiarly fitting to the insulation of magazine bulkheads or other exposed surfaces." Asbestos Fire Felt was purchased by the Navy by contract in the days before material specifications were utilized.

Exhibits:

Letter from G. Erhard, H.W. Johns Manufacturing Co. to P. Hichborn, Dept. of Construction and Repair, U.S. Navy (April 6, 1898);

Letter 1898 from G. Erhard, H.W. Johns Manufacturing Co. to P. Hichborn, Dept. of Construction and Repair, U.S. Navy (April 13, 1898).

2317. The Navy was pleased with the performance and appearance of the H.W. Johns product. The only alterations necessary were for "details of construction." When Navy Specification 32-F-1 was issued in 1912, the specification reflected an existing, commercially available product.

Exhibit:

Letter from Naval Constructor, New York Navy Yard to Commandant, New York Navy Yard (January 11, 1899).

Witness:

Terry Ring.

2318. Manville manufactured Asbestos Fire Felt from 1891 until 1962. During this period the product changed very little, if at all.

Exhibit:

Asbestos Containing Industrial Thermal Insulation and Asbestos Containing Shipyard Products (undated).

Witness:

Terry Ring.

2319. In 1929, EES recommended that Johns-Manville's Roll Fire Felt be approved and recognized in accordance with Navy specification 32-F-1a. Roll Fire Felt (made of 100% asbestos) was described by Manville as adaptable to a wide variety of uses on account of its great flexibility and its insulating and heat resisting properties. It had also been manufactured by Manville and its predecessor company (H.W. Johns) since 1891, but until 1929, Navy specification 32-F-1c did not cover any felts that were less than 1/4" in thickness.

Exhibits:

Memorandum from H.C. Dinger, Naval Engineering Experiment Station to Bureau of Engineering (May 29, 1929);

Memorandum from H.C. Dinger, Naval Engineering Experiment Station to Bureau of Engineering (June 28, 1929).

2320. Specification 32-F-1a was revised as Interim Specification 32-F-1 (INT) in 1941 and Navy wide as 32-F-1b in 1943, to specifically reflect Manville's Roll Fire Felt product.

Exhibits:

Navy Specification 32-F-1(INT), Felt, Asbestos, Roll (September 1, 1941);

Navy Specification 32-F-1b, Felt, Asbestos, Roll (February 1, 1943).

Witness:

Leon Birnbaum.

(vi) Amosite Asbestos Felt

2321. 32-F-3 was first issued as a Bureau of Engineering Interim Specification on March 1, 1937, entitled FELT, INSULATING, AMOSITE-ASBESTOS. The specification covered amosite asbestos insulating felt composed of rovings of carded fiber bound together and containing not less than 95% of asbestos fiber.

Exhibit:

Bureau of Engineering Spec. 32F3(INT), Felt, Insulating, Asbestos (March 1, 1937).

2322. Issuance of 32-F-3 (INT) followed approximately four years of testing products submitted by asbestos manufacturers, particularly UNARCO'S Insubestos Felt.

Exhibits:

Letter from Vice Pres. Union Asbestos and Rubber Co. to F. McGlary, Bureau of Engineering (August 3, 1934);

Letter from C.S. Gillette, Bureau of Engineering to Union Asbestos and Rubber Co. (August 9, 1934)

Memorandum from O.L. Cox, Naval Engineering Experiment Station to Bureau of Engineering (August 14, 1934);

Naval Engineering Experiment Station Report No. 6608 (September 5, 1934);

Letter from J.J. Broshek, Bureau of Engineering to Union Asbestos and Rubber Co. (September 5, 1934);

Memorandum from J.J. Broshek, Bureau of Engineering to Bureau of Supplies and Accounts (September 7, 1934);

Letter from R. Wild, Union Asbestos and Rubber Co. to Bureau of Engineering (September 8, 1934);

Letter from R. Wild, Union Asbestos and Rubber Co. to Bureau of Engineering (October 29, 1934);

Letter from J.J. Broshek, Bureau of Engineering to Union Asbestos and Rubber Co. (Novemberr 19, 1934);

Letter from R. Wild, Union Asbestos and Rubber Co. to Bureau of Engineering (November 20, 1934);

Letter from R. Wild, Union Asbestos and Rubber Co. to Bureau of Engineering (April 12, 1935);

Letter from President Keasbey and Mattison Co. to Bureau of Engineering (April 25, 1935);

Letter from J.A. Taylor, Wallace and Gale Co. to Bureau of Supplies and Accounts (June 18, 1935);

Letter from M.A. Norcross, Bureau of Supplies and Accounts to Wallace and Gale Co. (June 19, 1935);

Letter from R.W. Paine, Bureau of Engineering to Wallace and Gale Co. (July 1, 1935);

Memorandum from O.L. Cox, Naval Engineering Experiment Station to Bureau of Engineering (February 24, 1936);

Memorandum from O.L. Cox, Naval Engineering Experiment Station to Bureau of Engineering (March 31, 1936).

Witness:

Leon Birnbaum.

2323. In 1933, UNARCO had discovered that the Navy needed a product for insulating General Electric turbines on

naval vessels. Until 1933, turbines had been insulated by use of block and plastic insulations and rock and mineral wool, all of which were difficult to apply and quite heavy. UNARCO'S Insubestos Felt was made on the "woven cloth principle with practically 100% pure brass wire reinforced asbestos yarns, made from No. 1 chrysotile warp asbestos to take care of the highest 850' temperature." It was interlaced or woven with heavy insulating filler in the form of twisted rope, made entirely of 100% Amosite Asbestos fiber.

Exhibit:

Union Asbestos and Rubber Co., Unarco History, presented to Navy Regional Price Adjustment Board (circa 1944).

2324. On September 5, 1934, EES concluded that Insubestos Felt had satisfactory chemical, heat insulating and physical properties. Three days later a Certificate of Approval was registered placing Insubestos Felt on the approved list.

Exhibits:

Naval Engineering Experiment Station Report No. 6608 (September 5, 1934);

Memorandum from J.J. Broshek, Bureau of Engineering to Bureau of Supplies and Accounts (September 8, 1934).

2325. On September 8, 1934, UNARCO thanked the Navy for "the readiness and expediency in which the Bureau of Engineering has put thru this test which was so urgently requested of us by our client [General Electric] for the purpose of naval construction."

Exhibit:

Letter from R. Wild, Union Asbestos and Rubber Co. to Bureau of Engineering. (September 8, 1934).

2326. The March 1, 1937 interim specification, 32-F-3, required that the Amosite Asbestos be composed of Silica (47.5% minimum); Oxide (6% minimum), and Magnesium Oxide (6% minimum). 32-F-3 was issued as a Navy Department specification on March 1, 1939, retaining the same compositional requirements.

Exhibits:

Bureau of Engineering Specification 32-F-3(INT), Felt, Insulating, Asbestos (March 1, 1937);

Navy Specification 32-F-3, Felt, Insulating, Asbestos (March 1, 1939).

2327. Manville soon discovered that UNARCO was the only company producing a product in compliance with Navy Specification 32-F-3. Eager for a piece of the market, on June 6, 1939, Manville's research laboratory began development of such a product.

Exhibit:

Johns-Manville Research Laboratories Report No. 14-262 (June 3, 1942).

Witness:

Terry Ring.

2328. In the course of developing a competitive product, Manville found that a problem with Insubestos Felt was that the blanket would unravel if any of the cross binder strings were cut. Therefore, Manville decided to develop a product which was braided instead of woven.

Exhibit:

Johns-Manville Research Laboratories Report No. 14-262 (June 3, 1942).

Witness:

Terry Ring.

2329. On May 12, 1942, Manville informed BuShips that it too had produced an insulating felt for naval service which would meet the requirements of 32-F-3. The Manville product was ultimately accepted as satisfactory.

Exhibit:

Johns-Manville Research Laboratories Report No. 14-262 (June 3, 1942).

2330. Navy Department Specification 32-F-3 was revised once in 1945, and amended in 1948, without changing

the material or compositional requirements of the Amosite Asbestos.

Exhibits:

Navy Specification 32-F-3a, Felt, Insulating, Asbestos (October 15, 1945);

Navy Specification 32-F-3a Amendment 1, Felt, Insulating, Asbestos (October 15, 1948).

(vii) Akoustikos Felt

2331. The Navy Department's first specification for Acoustic Blankets was Bureau of Construction & Repair Specification SPS-1089, issued on Feb. 1, 1938. The specification covered two types of blankets: Type A, High-frequency absorption blankets, and Type B, Low-frequency absorption blankets. The material was to consist of vegetable fiber, mineral fiber, hair or similar fibrous material. The specification did not require use of asbestos fiber.

Exhibit:

Bureau of Construction and Repair Specification SPS-1089, "Blankets; Acoustic" (Feb. 1, 1938).

2332. The Bureau of Construction & Repair stated that SPS-1089 had been developed after consultation with EES, the National Bureau of Standards, and representatives of several manufacturers whose products had been tested. Only two materials qualified at the time: Manville's

Asbestos Akoustikos Felt for Type A and Owens-Illinois' Fiber-Glass Blanket for Type B.

Exhibit:

Memorandum from Bureau of Construction and Repair to the Commandant, New York (Mar. 8, 1938).

2333. Manville had entered the acoustical field quite early in its history. Hair felt products were used from 1910 to 1930 for acoustical treatments, and Manville purchased such products from the Keystone Hair Insulator Company, which later made the J-M Asbestos Akoustikos Felt. During this time frame, Charles B. Manville engaged a Harvard professor of world reknown in acoustics as a consultant a to new Manville Department of Architectural Acoustics. From this beginning the foundation was laid for a continuing business in the acoustical field.

Exhibit:

Cummins, A Century of Service With Johns-Manville, at 7, 12 (1958).

2334. In 1917, Manville recommended its acoustical felt to the Navy to eliminate reverberation in radio booths on war vessels. Manville emphasized that the product had proven efficient in eliminating the excessive reverberation in radio stations. In 1918, Manville recommended Acoustikos Felt to the Emergency Fleet Corporation of the U.S. Shipping Board.

Exhibits:

Letter from H.W. Johns-Manville Co. to Bureau of Construction and Repair (June 1, 1917);

Letter from H.W. Johns-Manville to the Hill Division of the Emergency Fleet Corporation (May 14, 1918).

2335. In 1928, Johns-Manville expanded its acoustics department by acquiring a new type of acoustical product developed by the Burgess Laboratories of Madison, Wisconsin.

Exhibit:

Cummins, A Century of Service with Johns-Manville, at 11-12 (1958).

2336. Akoustikos Felt was a widely available commercial product. In the 1930s, Manville advertised its Ackoustikos Felt as a specialty "adding one more sphere of usefulness to the asbestos line," and having characteristics "which make it particularly desirable in the field of mechanical equipment quieting (including air conditioning equipment, unit coolers and similar appliances)." The product was also "adaptable to the quieting of office machinery units, such as bookeeping and tabulating machines."

Exhibit:

Asbestos Magazine (April, 1938).

2337. Specification SPS-1089 was subsequently revised on Aug. 15, 1938 as Bureau of Construction & Repair Specification 59-B-4 (INT), "Blankets; Acoustic". The evolution of specification 59-B-4 was accomplished in collaboration with the manufacturers and in accordance with the best commercial practices. For example, on May 8, 1937, Johns-Manville informed the Navy that it had received orders for Akoustikos Felt for naval requirements, and recommended that the specification be amended with respect to thickness requirement. The subsequent version of 59-B-14 (December 20, 1938) was revised, in part, to standardize the measurements of thickness.

Exhibits:

Bureau of Construction and Repair Specification 59-B-4 (INT), "Blankets; Acoustic" (August 15, 1938);

Letter from Johns-Manville Sales Corporation to Bureau of Construction and Repair (May 8, 1937).

2338. The December 20, 1938 version of specification 59-B-4 (INT) entitled "Blankets; sound absorbing" changed the types to Type A, High-frequency absorption blankets. Type A was to consist of asbestos fiber and hair in combination, felted together in a permanently effectual manner. The Type A compositional requirements reflected the composition of Manville's Akoustikos Felt. Subsequently, the Bureau of Construction & Repair requested information from the New York Navy Yard's

Testing Laboratory as to any changes which would "better assure the procurement of materials equal in all essential particulars, to Johns-Manville 'Akoustikos' Felt for Type A and Owens-Corning 'Fiberglas' for Type B." (Emphasis added.)

Exhibits:

Bureau of Construction and Repair Specification 59-B-4 (INT)," Blankets; Sound Absorbing" (Dec. 20, 1938);

Memorandum from Bureau of Construction and Repair to New York Navy Yard (January 5, 1939).

2339. Subsequent versions of specification 59-B-4 did not require asbestos or other specific materials but, rather, gave the manufacturer a wide latitude of the choice of materials.

Exhibits:

Draft of Interim Specification 59-B-4 (May 15, 1941);

Bureau of Ships ad Interim Specification 59-B-4 (INT), "Blankets; Sound-Absorbing" (January 2, 1942).

2340. Revisions of 59-B-4 were always accomplished in the context of interaction with the manufacturers. In 1944, Owens-Corning reminded BuShips that Specification 59-B-4 (together with other specifications) should be revised and "brought up to date with our present manufacturing processes. We have from time to time... made certain improvements and changes in our product and in the methods

of manufacture so that the specifications as now written are in some ways obsolete or inaccurate...." (Emphasis added.)

Exhibit:

Letter from Owens-Corning to Bureau of Ships (Feb. 22, 1944).

2341. Manville's Akoustikos Felt was occasionally approved under specification 59-B-4 even though it did not comply with all of the requirements of the specification. For example, in 1943, the New York Navy Yard recommended that Manville's Akoustikos Felt using tobacco cloth as a reinforcing binder be approved even though it was burlap reinforcement (not tobacco) which was on the Acceptable List of Approved Materials and even though the sample submitted for testing weighed more than 10 per cent below the weight of the sample submitted for the initial brand approve test.

Exhibit:

New York Navy Yard Material Laboratory Report No. 4290-11 on Johns-Manville's AKOUSTIKOS FELT Sound Absorbing Blaket for compliance with BuShips Specification 59-B-4 (INT) of January 2, 1942 (June 14, 1943).

(viii) Asbestos Millboard

2342. The first Navy specification for Asbestos Millboard was 23-M-1, issued in January, 1902. 23-M-1 designated the size, thickness and weights of asbestos millboard sheets acceptable to the Navy. However, the Navy Department could not obtain any asbestos millboard which met

the minimum requirements of the specification and therefore, after consulting "various dealers," in August 1902, amended the minimum weight requirements to reflect "the weight per sheet of material manufactured by" the various dealers consulted.

Exhibits:

Bureau of Supplies and Accounts Specification 23-M-1 (Jan., 1902);

Letter from W.L. Chapps, Naval Construction to Commandant (Aug. 19, 1902).

2343. The H.W. Johns Co. had been manufacturing asbestos millboard since the early 1890s. Manville's sales literature described millboard as a rigid, fireproof sheet used for protection from fire, heat, acid fumes, which found considerable applications in the steel industry and as insulating barriers in stoves, ovens and heated appliances. Manville offered various grades of millboard suitable for varying temperatures. Grade 102 which was eventually sold to the Navy and was described in 1925 as of medium hardness and capable of withstanding temperatures up to 1000' F.

Exhibits:

Cummins, A Century of Service With Johns-Manville, at 3 (1958);

Millboard Product Information Catalogue (February 15, 1920);

Report of Johns-Manville Officers' Board Meeting (December 21, 1942);

Power Products, "J-M Asbestos Sheet Millboard" (September, 1938).

2344. Navy Specification 23-M-1 was revised as Navy Specification 32-M-1, "Asbestos Millboard," on May 31, 1910. Navy Specification 32-M-1 said nothing about the content of the millboard except in the title.

Exhibit:

Navy Specification 32-M-1, "Asbestos Millboard" (May 31, 1910).

2345. Navy Specification 32-M-1 was formally revised on six occasions between 1910-1944. Each revision was accomplished in the context of interaction between the Navy and the asbestos manufacturers, and the manufacturers exercised great influence as to the content of the specifications. For example, in 1917 Philip Carey informed the Navy that the material should be made from not less than 95% pure chrysotile fiber. Also, in 1919 the manager of Manville's Insulation Department advised the Navy with respect to the proposed revision of 32-M-1b that thickness should be measured with a micrometer and set at certain specified divisions dimensions.

Exhibits:

Navy Specification 32-M-1a (July 25, 1913);

Navy Specification 32-M-1b (May 1, 1922);

Navy Specification 32-M-1c (April 1, 1922);

Navy Specification 32-M-1d (February 1, 1926);

Navy Specification 32-M-1e (May 1, 1941);

Navy Specification 32-M-1f (November 1, 1942);

Letter from Bureau of Steam Engineering to Bureau of Supplies and Accounts (March 7, 1913);

Report from E.E.Williams to Inspector of Engineering Material (October 24, 1917);

Report from E.E. Williams to Inspector of Engineering Material (November 10, 1917), with attached Proposed Specification of Philip Carey Co. for asbestos millboard;

Letter from M.T. Mattison, Keasbey & Mattison Co. to Captain Bartlett (November 9, 1917);

Letter from R.G. Denig to Bureau of Steam Engineering (June 13, 1919);

Letter from Eugene Dowling to R.G. Denig (July 14, 1919);

Letter from C.J. Stover to Capt. F.W. Bartlett (July 1, 1919);

Letter from F.W. Bartlett to Bureau of Steam Engineering (July 2, 1919);

Letter from C.J. Stover to H.T. Winston (August 5, 1920);

Letter from H.T. Winston to Bureau of Engineering (August 6, 1920);

Letter from Mr. Bradfield, Johns-Manville, Inc. to Bureau of Engineering (August 9, 1924);

Letter from Bureau of Engineering to Keasbey & Mattison Co. (December 19, 1935).

2346. In 1920, the Asbestos Paper Manufacturers Association submitted its proposed revision of Navy specification 32-M-1b. The Association's specification defined asbestos millboard as "made up from asbestos fiber

with a small amount of binding materials." The Association's proposed specification suggested a standard size sheet, two grades of asbestos millboard, thickness and weight variances, and heat and moisture tests. The Philadelphia Inspector of Engineering Materials forwarded the Association's proposed specification to the Bureau of Engineering along with his opinion that the "proposed specifications are considered far more suitable than present Navy Department Specifications and it is recommended that the essential features be incorporated in new leaflet specifications and issued to the Service."

Exhibits:

Letter from C.J. Stover to H.T. Winston (August 5, 1920);

Letter from H.T. Winston to Bureau of Engineerning (August 6, 1920).

2347. Navy Specification 32-M-1c, which superseded 32-M-1b, reflected the comments of the Asbestos Paper Manufacturers Associations. The specification established two grades of asbestos millboard and specified that asbestos millboard "shall be boards of uniform thickness, composed of asbestos fiber with a small amount of binding material."

Exhibit:

Navy Specification 32-M-1c (April 1, 1922).

2348. Subsequent revisions of Navy Specification 32-M-1 were accomplished to conform to commerical practices. On July 1, 1940, the Bureau of Engineering and the Bureau of Construction and Repair issued 32-M-1(INT), which established a minimum requirement for asbestos fiber content at not less than 75 percent, by weight. This specification was issued Navy-wide in 1941 as Navy Specification 32-M-1e. Manville's asbestos millboard was tested against the requirements of Navy Specification 32-M-1e and found acceptable for use.

Exhibits:

Interim Specification 32-M-1 (INT) (July 1, 1940);
Navy Specification 32-M-1e (May 1, 1941);
EES Test Report No. 13-4876 (June 6, 1941);
EES Test Report No. 13-5915 (October 16, 1941).

2349. The only difference, if any, between the Special 102 Millboard which Manville allegedly sold to the Navy and its standard asbestos millboard product was a treatment given to the product sold to the Navy to harden the surface. This surface treatment did not affect or change the percentage of asbestos in the product in any way.

Witness:

Donald Wingerter.

(ix) Other Products

2350. There is no evidence that Johns-Manville Style 2150 asbestos sheet packing was used by or near any of the underlying claimants, or that handling of the product would have created a dusty or otherwise hazardous working condition.

2351. There is no evidence that Navy Specification 33-P-13 (October 1, 1924) or its successors, was issued or revised except to conform to the best and most up-to-date commercial practices and standards, and based on commerically available products.

2352. There is no evidence that Manville's corrugated asbestos paper was used by or near any of the underlying claimants, or that handling of the product would have created a dusty or otherwise hazardous working condition.

2353. There is no evidence that Navy Specification 32-P-4a, paper, asbestos corrugated (July 1, 1941) or its successors, was issued or revised except to conform to the best and most up-to-date commercial practices and standards, and based on commercially available products.

2354. There is no evidence that Manville's Ebony Asbestos was used by or near any of the underlying claimants, or that handling of the product would have created a dusty or otherwise hazardous working condition.

2355. There is no evidence that Navy Specification 17-I-6c, Insulation, Electrical, Asbestos Board, Impregnated (June 1, 1940), was issued or revised except to conform to the best and most up-to-date commercial practices and standards, and based on commercially available products.

2356. There is no evidence that Manville's various types of asbestos electrical cable filler products were used by or near any of the underlying claimants, or that handling of the products would have created a dusty or otherwise hazardous working condition.

2357. There is no evidence that either Navy Specification 15-C-11 (January 2, 1940) or Navy Specification 17-I-2g (January 2, 1942) were issued or revised except to conform to the best and most up-to-date commercial practices and standards, and based on commercially available products.

2358. There is no evidence that Manville's Marine Insulating Tape, allegedly used as a substitute for asbestos cloth and glass tape, was used by or near any of the underlying claimants.

2359. There is no evidence that Navy Specification 32-P-9, paper and tape, asbestos, reinforced with cotton mesh (Sept. 1, 1944) was issued or revised except to conform to the best and most up-to-date commercial standards.

2360. There is no evidence that Manville would not have obtained approval from the Navy had it submitted an

asbestos-free substitute for any of the products covered by the foregoing specifications. To the contrary, the general process by which Navy specifications were issued indicates that any such substitute products would have been tested by EES to determine suitability for use in the naval service, and, if the products tested successfully, a specification would have been drafted and issued covering these products.

Exhibit:

See paragraphs 2225 to 2241, supra.

2361. The Manville asbestos products sold to the United States and at issue in this litigation were no more hazardous than the identical or parallel commercially-available products.

See paragraphs 24-137, supra.

(2) Nothing In The Government's Specifications Or Standards Prohibited Manville From Placing A Warning Label On Its Products Or Packaging

2362. Navy Specification 32-C-11c (November 1, 1939) section G, entitled "packaging, packing, and marking for shipment," dealt with packing and marking of cartons to insure safe delivery by common carrier, and to permit identification of the packaged material. Nothing in Navy Specification 32-C-11c precluded the supplier from placing informational material, including a warning label, on the outside of the package, within the package, or on the product itself.

Exhibit:

Navy Specification 32-C-11c, Cloth and Strands, Asbestos (November 1, 1939).

2363. Nothing in any of the Navy Department procurement specifications at issue in this litigation barred suppliers from placing warning labels on the inside or outside of the package or container or on the product itself.

Exhibits:

See Paragraphs 2241 to 2361, supra.

2364. Navy procurement specifications for thermal insulation materials were generally developed and revised based on commercially available products and the best

existing commercial practices. Therefore, had Manville or other suppliers dutifully warned the government and/or ultimate users of the hazards inherent in the Manville thermal insulation products, the Navy would have revised the applicable specifications to require that warnings or special handling instructions be included in the packages or containers for these materials, or on the materials themselves.

Exhibits:

See Paragraphs 2225 to 2241, supra.

2365. The "Navy Shipment Marking Handbook" (1942) was the first unified instruction for marking Navy shipments. The purpose for this handbook was to facilitate movement of packages without confusion and to permit ready identification of contents. The handbook provides guidelines concerning, among other things, how a container should be marked on the outside (i.e., type of ink, where markings should appear on face of carton); the identification to place inside containers; and size of lettering. There is nothing in the Navy Shipment Marking Handbook that precluded Manville from inserting a warning or special handling instructions into the packages before the container was sealed.

Exhibit:

Bureau of Supplies and Accounts, Navy Shipment Marking Handbook (1st ed. 1942).

2366. The Federal Procurement Manual (1943) focused specifically on the procurement of products during World War II. There is nothing in the Federal Procurement Manual (1943) which prescribes either the method for shipping packages or the manner in which packages are marked or labelled.

Exhibit:

Treasury Dept., Federal Procurement, A Manual for the Information of Federal Purchasing Officers (1943).

(3) Marinite And Marine Sheathing, The Only Manville Asbestos-Containing Products Sold Directly To The Maritime Commission During WWII, Were Developed Solely By Manville In Order To Capture Large Segments Of The Maritime And Non-Maritime Markets

(a) In The Early 1930's Manville Was Attempting To Develop A Light Weight Marine Construction Material

2367. In 1930 Manville established a Research Council "for the purpose of working out and carrying forward a broad, intelligent[,] coordinated program of research and development to provide for the future needs as well as the present demand[,] of our business."

Exhibit:

"A Century of Service with Johns-Manville" (1953).

2368. Manville's research department increased between 1930 and 1935 despite the "Great Depression". The research department had a budget of $328,000 in 1929 and employed 50 persons. By 1937, Manville's research department had a budget exceeding $500,000 and employed 134 persons.

Exhibits:

"A Century of Service with Johns-Manville" (1953).

2369. Manville emphasized research and development to identify potential markets so that Johns-Manville could increase its business through new products and thereby increase profits. As Johns-Manville's president, Lewis H. Brown, said in 1936:

> We must attain greater flexibility in our approach to the problem of selling goods in volume and the development of new products. There is no way of approaching this problem except through greater coordination and greater cooperation between the sales, the research, the factory, and the financial and accounting divisions of our business.

Exhibit:

"A Century of Service with Johns-Manville" (1953).

2370. In the early 1930's, Manville's Research Council identified a potential market in the marine industry's need for light weight, fire-resistant bulkhead and ceiling construction materials.

Exhibit:

"A Century of Service with Johns-Manville" (1953).

2371. By December 5, 1933, Johns-Manville's research department was developing a "repressed millboard" to sell in the marine construction market.

Exhibit:

Johns-Manville, "Marinite History" (1962).

2372. Johns-Manville continued its research effort on "repressed millboard" during early 1934.

Exhibit:

Johns-Manville, "Marinite History" (1962).

2373. Thus Manville's efforts to develop a light-weight marine construction material pre-date the September, 1934 Morro Castle ship fire, the 1935 Senate Resolution No. 7 instructing the Senate Committee on Commerce "to investigate the adequacy and enforcement of the present legal standards of safety of ship construction and operation", the passage in June, 1936 of the Merchant Marine Act of 1936, the creation of the Maritime Commission and the 1937 issuance of Senate Report No. 184 requiring that some ships be "fireproof".

Exhibits:

New York Times (September 9, 1934);

S. Rep. No. 184, 75th Cong., 1st Sess., "'Morro Castle' and 'Mohawk' Investigations" (1937);

Merchant Marine Act of 1936, Pub. L. No. 835, ch. 858, 49 Stat. 1985 (1936).

(b) Following The Morro Castle Disaster Manville Redoubled Its Efforts To Create A Light Weight Marine Construction Material

2374. On September 8, 1934, fire aboard the S. S. Morro Castle killed 134 persons. The fire, which occurred within sight of the New Jersey shore, focused national attention on the danger posed by use of combustable materials in ship construction.

Exhibits:

New York Times (September 9, 1934);

S. Rep. No. 184, 75th Cong., 1st Sess., "'Morro Castle' and 'Mohawk' Investigations" (1937).

2375. Exactly one month after the Morro Castle ship fire disaster, Johns-Manville issued a "Sales Bulletin" to "ALL OFFICES & SALESMEN". In the October 8, 1934 Sales Bulletin, L.R. Huff said that the Morro Castle ship fire disaster had created "an active demand" for fireproof ship construction materials and that Johns-Manville intended to satisfy the new demand by developing "suitable materials for this market." Therefore, L.R. Huff instructed Johns-Manville salesmen to promote an interest in fire resistant marine construction materials among "Naval architects,

shipyards, shipping companies or vendors of marine equipment."

Exhibit:

"Sales Bulletin" (October 8, 1934).

2376. Manville was correct about the "active demand" created by the Morro Castle ship fire disaster. In October, 1934, the American Export Company placed a small order with Manville for flexboard veneered Expanded Transite. In discussing the American Export Company order, Johns-Manville determined that the "characteristics necessary for any new marine millboard to be successful" included:

1. Fire resistance
2. Light Weight [no more than 2-1/2 pounds per square foot]
3. Resistance of sound transmission
4. Capacity for conforming to decorative schemes
5. Ease of workability and installation
6. [The last point was redacted when the Manville provided this document to the United States.]

Exhibit:

Johns-Manville, "Marinite History" (1962).

2377. By November, 1935, Manville had developed a light weight millboard for the marine industry. By the end of 1935, Manville had produced this new product, which it called Marine Sheathing, in its laboratories.

Exhibit:

Johns-Manville, "Marinite History" (1962).

2378. In November, 1935 Manville's Marine Sheathing was composed of two kinds of asbestos fiber, sodium silicate and lime.

Exhibit:

Johns-Manville, "Development of Marine Shealthing and Marinite" (November 15, 1938).

2379. In December, 1935 Manville altered its Marine Sheathing formula to make it less alkaline by substituting Celite for sodium silcate. Manville continued to use two kinds of asbestos fiber in its Marine Sheathing.

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite" (November 15, 1938).

2380. In January or February, 1936 Manville made an experimental production "run" of Marine Sheathing at its Nashua Plant. When Evan Rinehart of Manville's Marine Division was shown samples of Marine Sheathing, he stated that he "thought that he could sell the product to the ship building trade for use on partitions between staterooms and on various other bulkhead work."

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite" (November 15, 1938).

2381. On April 29, 1936, Manville issued the tentative manufacturing specification for Marine Sheathing. Marine Sheathing was made from 35% "E" asbestos fiber, 35% "S" asbestos fiber, 15% hydrated lime and 15% silocel.

Exhibits:

Johns-Manville, "Development of Marine Sheathing and Marinite" (November 15, 1938);

Johns-Manville Report No. 14-76 (May 25, 1937).

2382. Manville's Marine Sheathing formula predates the June, 1936 passage of the Merchant Marine Act of 1936 and the issuance in 1937 of Senate Report No. 184. Therefore, Manville did not develop Marine Sheathing at the request of the Maritime Commission or in response to Senate Report No. 184.

Exhibits:

S. Rep. No. 184, 75th Cong., 1st Sess., "'Morro Castle' and 'Mohawk' Investigations" (1937);

Merchant Marine Act of 1936, Pub. L. No. 835, ch. 858, 49 Stat. 1985 (1936).

2383. There is no evidence that Manville altered its Marine Sheathing formula between 1936 and 1947.

(c) Even Before It Produced Marine Sheathing, Manville Was Marketing This Product To The Private Shipbuilding Industry

2384. On December 4, 1935, Manville authorized B. Townsend to make "quote[s]" on Marine Sheathing to private shipyards. On December 9, 1935, B. Townsend wrote to H.A. Kiesselback stating that Evan Rinehard had authorized him to make quotes on Marine Sheathing even though the material could not be delivered for six to eight months since it was not yet in production.

Exhibit:

Johns-Manville, "Marinite History", at 2 (1962).

2385. By January 13, 1936, Johns-Manville had actually quoted prices for Marine Sheathing to the Federal Shipbuilding & Dry Dock Company.

Exhibit:

Johns-Manville, "Marinite", at 1 (June 15, 1983).

2386. In February 1936, Johns-Manville gave Evan Rinehart permission "to canvas the trade and to see just what reaction he could get [concerning Marine Sheathing] from the various Naval architects. At the same time, Johns-Manville authorized Evan Rinehart to accept "an order for 2,000 sq. ft." of Marine Sheathing.

Exhibit:

Johns-Manville "Development of Marine Sheathing and Marinite", at 1 (November 15, 1938).

2387. By March 15, 1936, Evan Rinehart wrote to G. B. Brown for additional information about Marine Sheathing because he was receiving so many inquiries about the product: "[s]o many inquiries about MS must have data."

Exhibit:

Johns-Manville, "Marinite History", at 3 (1962).

2388. However, though demand existed for Marine Sheathing in March 1936, Manville could not yet fully exploit that market since it did not yet have Marine Sheathing in full production.

Exhibit:

Johns-Manville, "Marinite History", at 2 (1962).

2389. In April 1936, Manville's production of Marine Sheathing had progressed sufficiently that it sent Marine Sheathing samples to the Newport News Shipbuilding Company, the Federal Shipbuilding and Dry Dock Company, and the Maryland Dry Dock Company.

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite" at 1 (November 15, 1938).

2390. The private marine industry so favorably received Marine Sheathing that Manville decided by June, 1936 to place a description of Marine Sheathing in its sales manual.

Exhibit:

Johns-Manville, "Marinite History", at 4 (1962).

2391. By July, 1936 Manville's Nashua factory was commercially producing Marine Sheathing.

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite", at 2 (November 15, 1938).

2392. In September, 1936 Johns-Manville's Officers' Board authorized Evan Rinehart to sell 12,000 feet of Marine Sheathing and Marinite to the Maryland Dry Dock Company for use in the rehabilitation of the S.S. Catherine.

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite", at 1-2 (November 15, 1938).

2393. Since the Maryland Dry Dock Company had completed the rehabilitation of the S.S. Catherine by February 1937, Johns-Manville had delivered the 12,000 feet of Marine Sheathing and Marinite to the Maryland Dry Dock Company before February 1937.

Exhibits:

"Power Specialist" (January-February 1937);

"Marine Engineering and Shipping Review" (March 1937).

2394. Thus, Manville's early sales of Marine Sheathing were to private companies and not to the government.

Exhibits:

See Paragraphs 2384 to 2394, supra.

2395. On November 12, 1936, Johns-Manville's Officers' Board approved Marine Sheathing as a Manville "standard commodit[y]".

Exhibit:

Johns-Manville, "Marinite History", at 4 (1962).

2396. In January, February, March and April 1937, Johns-Manville's Marine Sheathing was featured or "advertised" in the "Power Specialist" and the "Marine Engineering and Shipping Review".

Exhibits:

"Power Specialist" (January-February 1937);

"Marine Engineering and Shipping Review" (March 1937);

"Marine Engineering and Shipping Review" (April 1937).

2397. In November, 1937 Manville issued Sales Brochure IN 65 to all of its salesmen. Sales Brochure IN 65 gave information about Marine Sheathing and Marinite.

Exhibit:

Sales Brochure IN 65 (November 1937).

2398. Once Manville had Marine Sheathing in production, Manville did not limit its Marine Sheathing marketing and sales to the marine industry alone. On March 8, 1937, Manville issued Report No. 28-235 which showed that Marine Sheathing met the needs of the Solvay Process Company for "Gas Line Service."

Exhibits:

Johns-Manville, "Laboratory Reports on Marine Sheathing", at 1 (November 15, 1938).

2399. On December 19, 1938, the Manville Board of Directors were advised that "[t]he growing demand for [Marine Sheathing and Marinite], in both the marine and industrial fields, had necessitated an increase in manufacturing facilities by Johns-Manville Products Corporation." In fact, the demand for Marine Sheathing and Marinite justified manufacturing Marine Sheathing and Marinite at a separate facility and the Board of Directors was told that Manville was "planning to take care of the demand for the products during 1939 by leasing a building from the Boston and Maine Railroad...in Billerica,

Massachusetts." In the end, Johns-Manville bought rather than leased the Billerica facilities and began producing Marine Sheathing and Marinite at its Billerica plant in 1939.

Exhibits:

Minutes of the Meeting of the Johns-Manville Board of Directors (December 19, 1938);

Morning Newspaper Release "Johns-Manville to Start New Factory At Billerica Soon" (January 4, 1939);

"A Century of Service with Johns-Manville", at 14 (1953).

2400. In 1939, Manville was still pushing Marine Sheathing as a non-marine product. As reported to its stockholders in the October, 1939 issue of "Stockholders' News":

> Marinite and Marine Sheathing have desireable properties which make them suitable for use in industry, and our Sales Departments are pushing these uses vigorously. Should there be a temporary or permanent discontinuance of the marine program, because of any unforeseen war conditions, the ever-increasing industrial uses of Marinite and Marine Sheathing will, it is expected, assure the place of these products in its J-M line.

Exhibit:

"Stockholders' News" (October 1939).

(d) After It Had Developed Marine Sheathing, Manville Provided Samples To Outside Entities For Testing

2401. After the passage of Senate Resolution No. 7, the Senate Committee on Commerce created the Technical Committee on Safety at Sea, which met for the first time on June 17, 1935. Rear Admiral George C. Rock, U.S.N. (retired), chaired the Technical Committee and established a specialized subcommittee on Fireproofing and Fire Control. Admiral Rock appointed George G. Sharp, a young naval architect who had earlier warned of the dangers of ship fires and recommended using non-combustible materials in ship construction, to chair the Subcommittee on Fireproofing and Fire Control.

Exhibits:

George G. Sharp, "Fire Control For Passenger Vessels," at 646 (November 1936);

"Fire Tests On The Steamship 'Nantasket'," Society of Naval Architects and Marine Engineers Transactions, vol. 45, at 253 (1937).

2402. Since there was a dearth of technical information on ship fires, George Sharp "immediately [determined] that, if the committee's recommendations were to be formulated from sound principles, some sort of experimental basis for those principles would first have to be established, in which the experiments simulated the conditions of an actual shipboard fire."

Exhibit:

"Fire Tests On The Steamship 'Nantasket'," Society of Naval Architects and Marine Engineers Transactions, vol. 45, at 253 (1937).

2403. To obtain accurate information, George Sharp acquired a vessel, the S. S. Nantasket, and began testing materials by constructing simulated ship staterooms and compartments aboard the Nantasket, filling the rooms with tinder, setting the tinder afire, and recording the results.

Exhibits:

"Fire Tests On The Steamship 'Nantasket'," Society of Naval Architects and Marine Engineers Transactions, vol. 45, at 254 (1937);

George C. Sharp, "Fire Control For Passenger Vessels", at 646 (November 1936).

2404. The materials which George Sharp used in his tests were "voluntary contributions of various manufacturers." Manville actively participated by sending samples of its existing products. As Commander Howard L. Vickery noted in his 1938 article entitled "Effect of New Safety Regulations in Senate Report No. 184 on the Design of Merchant Ships", the "tests were in no respect conducted for the approval or disapproval of individual materials," but "[m]aterial suppliers had vested interests in the types of materials used."

Exhibits:

Howard L. Vickery, "Effects of New Safety Regulations in Senate Report No. 184 on the Design of Merchant Ships," Society of Naval Architects and Marine Engineers Transactions, vol. 46, 17 (1938);

"Fire Tests On The Steamship 'Nantasket'", Society of Naval Architects and Marine Engineers Transactions, vol. 45, at 254 (1937).

2405. George Sharp's subcommittee tested products which were already in existence and concluded that "the necessary materials [were already] available" to meet "new regulations call[ing] for fireproofing protection."

Exhibit:

George G. Sharp, "Fire Control For Passenger Vessels," Society of Naval Architects and Marine Engineers Transactions, vol. 45, at 233 (1937).

2406. Manville was eager to have its products used in George Sharp's fire tests. On November 12, 1935, Evan Rinehard asked Manville officials for permission to send Marine Sheathing panels to George Sharp and the "Special Technical Advisory Committee on Safety at Sea Legislation *** for test on S.S. Nantasket [which] will determine government requirements on bulkheads and ceilings."

Exhibit:

Johns-Manville, "Marinite History" (1962).

2407. Based upon Evan Rinehart's request, Manville sent two sheets of Marine Sheathing to the S.S. Nantasket on November 26, 1935 for fire testing.

Exhibit:

Johns-Manville, "Marinite" (1938).

2408. Manville attended the tests of Marine Sheathing conducted by George Sharp. On December 12, 1935, Manville employee G. B. Brown issued a report on the Nantasket fire tests on Marine Sheathing.

Exhibit:

Johns-Manville, "Marinite History" (1962).

2409. Johns-Manville also sent Marine Sheathing samples to other "outside" entities requesting that the product be tested. Sometime between February and July 1936, Manville sent samples of Marine Sheathing to the Shipping Board for fire tests. The Shipping Board completed its fire tests on Marine Sheathing on July 16, 1936.

Exhibit:

Johns-Manville, "Marinite History", at 4 (1962).

2410. There is no evidence that any other tests were made on Marine Sheathing by outside entities other than Manville itself.

(e) Manville Developed Marinite In Its Own Research Facilities To Further Capture The Marine Construction Market For Millboard

2411. In January or February 1936, Manville made its first experimental "run" of Marine Sheathing on its Nashua Plant Transite presses. The resulting Marine Sheathing weighed about seventy pounds per cubic foot. Evan Rinehart stated that he "thought that if it were possible to bring the weight of the material from 70 to 40#/cu. ft. it would be competitive in weight with the present wood panels which we were trying to replace...."

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite" (November 15, 1938).

2412. Manville's researchers immediately began working to develop a lighter weight version of Marine Shealthing. In early February 1936, these researchers substituted Amosite for the Canadian asbestos fibers used in Marine Sheathing in a laboratory experimental production. The result was that the weight of Marine Sheathing was reduced from 70 pounds per cubic foot to about 40 pounds per cubic foot. According to Johns-Manville's 1953 publication "A Century of Service with Manville", the resulting product, called Marinite, was developed "entirely * * * by company research."

Exhibits:

Johns-Manville, "A Century of Service with Johns-Manville" (1953);

Johns-Manville, "Development of Marine Sheathing and Marinite" (November 15, 1938).

2413. On April 29, 1936, Johns-Manville issued the first tentative manufacturing specification for Marinite.

Exhibit:

Johns-Manville, "Marinite" (1938).

2414. In May, 1936 Manville conducted a "production" run of Marinite at its Nashua Plant, using its April 29, 1936 tentative manufacturing specification.

Exhibit:

Johns-Manville, "Laboratory Reports on Marinite" (November 15, 1938).

2415. On October 10, 1936, J. C. Hopkins issued "Tentative Specification # 108" for Marinite. The specification showed that Marinite should be made of 50% D3 amosite fiber, 25% hydrated lime and 25% Sil-O-Cel (Celite).

Exhibit:

"Tentative Specification #108" (October 10, 1936).

2416. By the fall of 1936, Manville had Marinite "in production" at its plant.

Exhibit:

> Johns-Manville, "Development of Marine Sheathing and Marinite", at 2 (November 15, 1938).

2417. While Manville altered its Marinite formula between 1936 and 1947 to use different kinds of lime or a different kind of silicate product, it never altered the basic Marinite formula: 50% amosite fiber, 25% lime and 25% silitate product.

Exhibits:

> Marinite Manufacturing Specification (October 31, 1938);
>
> Marinite Manufacturing Specifiction (March 10, 1939);
>
> Marinite Manufacturing Specification (June 25, 1943);
>
> Marinite Manufacturing Specification (August 19, 1943).

(f) Manville Agressively Marketed Marinite To Private Shipyards And Other Private Customers

2418. In April 1936, Manville sent Marinite samples to the Newport News Shipbuilding Company, the Federal Shipbuilding and Dry Dock Company and the Maryland Dry Dock Company who "favorably received" the product:

> It was so favorably received that it was decided to include it in the line of products along with the standard Marine Sheathing which was made with Canadian fiber.

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite", at 1 (November 15, 1938).

2419. In September 1936, Johns-Manville's Officers' Board authorized Evan Rinehart to sell 12,000 feet of Marinite and Marine Sheathing to the Maryland Dry Dock Company for use in the rehabilitation of the S.S. Catherine. The sales was made through Evan Rinehart.

Exhibit:

Johns-Manville, "Development of Marine Sheathing and Marinite", at 1-2 (November 15, 1938).

2420. Since the Maryland Dry Dock Company completed the rehabilitation of the S.S. Catherine by February 1937, Johns-Manville delivered the 12,000 feet of Marinite and Marine Sheathing to the Maryland Dry Dock Company at least by February 1937.

Exhibits:

"Power Specialist" (January-February 1937);

"Marine Engineering and Shipping Review" (March 1937).

2421. Two months after approving the Maryland Dry Dock Company sale of Marinite and Marine Sheathing, on November 12, 1936, the Officers' Board approved Marinite as a Johns-Manville "standard commodit[y]."

Exhibit:

Johns-Manville, "Marinite History", at 4 (1962).

2422. The same month (November 1936), Johns-Manville advertised Marinite in the "Marine Shipping and Engineering Review."

Exhibit:

Johns-Manville, "Marinite", at 2 (June 15, 1938).

2423. In December 1936, Manville issued Sales Brochure BMM-225 for all its salesmen. Sales Brochure BMM-225 provided information about Marinite.

Exhibit:

Sales Brochure BMM-225 (December 1936).

2424. In January, February, March and April 1937, Johns-Manville's Marinite was featured or "advertised" in the "Power Specialist" and the "Marine Engineering and Shipping Review".

Exhibits:

"Power Specialist" (January-February);

"Marine Engineering and Shipping Review" March 1937);

"Marine Engineering and Shipping Review" (April 1937);

2425. In November 1937, Johns-Manville issued Sales Brochure IN 65 on Marinite and Marine Sheathing.

Exhibit:

Sales Brochure IN 65 (November 1937).

2426. Having established Marinite in private industry, Johns-Manville determined to get the United States to use Marinite. In the late 1930s, Johns-Manville sent Utley Smith to Washington, D.C. to "push" the sale of Marinite to the Government.

Witness:

Utley Smith.

2427. In naming Marinite on July 20, 1936, G. B. Brown was accutely aware that Marinite had applications beyond the marine industry. One of his reasons for rejecting the names Light Weight Marine Sheathing, Marine Sheathing Type C and L.W. Marine Sheathing was that the name "Marinite" would be a better name "for non-marine work".

Exhibit:

Memo from G.B. Brown (July 20, 1936).

2428. On June 4, 1937, Johns-Manville Report No. 28-285 concluded that use of a particular laquer would prevent warpage and allow Johns-Manville to make "Flexboard Enclosed Marinite Cell Structure Doors" for the Consolidated Edison Company.

Exhibit:

Johns-Manville "Laboratory Reports on Marinite", at 2 (November 15, 1938).

2429. On February 8, 1938, Johns-Manville Report No. 28-388 reported on tests to assure that Marinite would perform satisfactorily in insulating the Loose-Wiles Biscuit Company's ovens.

Exhibit:

Johns-Manville "Laboratory Reports on Marinite", at 3 (November 15, 1938).

2430. Marinite was selling so well for non-marine uses that Johns-Manville on November 28, 1938 issued a Sales Bulletin addressed to "ALL POWER PRODUCTS AND GENERAL SALESMEN". The Sales Bulletin presented Marinite as "a light weight fireproof sheet [which had originally been designed] to meet the requirements of ship construction and has been successfully used in that field for the past two years." Moreover, based on recent successful industrial applications, Manville determined to introduce Marinite "into the Industrial Insulation line for conditions where it is considered adaptable" such as oven insulation, lehrs, boilerroom ceilings and walls, water and air cooled boiler walls, removable or replaceable covers on heated equipment, and fireproofed structural steel.

Exhibit:

Sales Bulletin (November 28, 1938).

2431. On December 19, 1938, the Manville Board of Directors were advised that "[t]he growing demand for [Marine Sheathing and Marinite], in both the marine and industrial fields, had necessitated an increase in manufacturing facilities by Johns-Manville Products Corporation."

Exhibits:

Minutes of the Meeting of the Johns-Manville Board of Directors (December 19, 1938);

Morning Newspaper Release "Johns-Manville to Start New Factory At Billerica Soon" (January 4, 1939);

"A Century of Service with Johns-Manville", at 14. (1953).

2432. Johns-Manville's success in marketing Marinite and Marine Sheathing to non-marine industries continued in 1940. On January 25, 1940, Johns-Manville issued a Sales Bulletin entitled "Marinite For Industrial Insulation and Fireproofing" to "ALL POWER PRODUCTS & GENERAL SALESMEN". The Sales Bulletin noted that:

> The acceptance of Marinite in Industrial plants has been remarkable. It is only a little over a year since Marinite was given a general release as an insulating and fireproofing material, yet in that short length of time every District has made one or more prominent sales. Practically every industry is represented in our list of purchasers finding uses for Marinite and[,] in some instances[,] the use has been most unusual.

The largest volume of sales went to oil refineries for fireproofing structural steel and the second largest volume of sales went to insulating baking ovens. In addition, Marinite had been used to fireproof steel plants, insulate furnaces and dryers, shield workers in steel, glass and paint plants, and cover galvanized kettles and pots.

Exhibit:

Johns-Manville Sales Bulletin (January 25, 1940).

2433. In the January-February 1937 issue of the "Power Specialist", an article on the S.S. Catherine's reconstruction stated that Marinite and Marine Sheathing surpassed George Sharp's standards, which were embodied in the prospective regulations of the Bureau of Navigation and Marine Inspection, and both materials "were officially approved, therefore, for bulkheads and lining of accomodation spaces of passenger craft."

Exhibit:

"Power Specialist", at 7 (January-February 1937).

2434. On October 19, 20 and 21, 1937, the Maritime Commission tested Marinite at Fort Eustis, Virginia. While the tests were run by George Sharp's staff and the Bureau of Standards, representatives of Johns-Manville, the Maritime Commission, the U.S. Coast Guard, the Bureau of Marine Inspection and Navigation, the Department of Commerce, the

Newport News Shipbuilding Company and the Dearfort Engineering Company attended the tests. On October 23, 1937, D. T. Colton issued Johns-Manville Report No. 20-374 stating that (in his opinion) Marinite had performed very well in the tests.

Exhibit:

Johns-Manville Report No. 20-374 (October 23, 1937).

2435. On June 15, 1938, Evan Rinehart wrote to the U.S. Maritime Commission and attached a "loose leaf brochure" containing information about Manville's marine panels and insulation. A note at the end of the letter states that "[a] set of samples has been sent you under separate cover." On July 13, 1938, Evan Rinehart again wrote to the Maritime Commission to provide technical information on the use of Marinite as a ventilation duct material.

Exhibits:

Letter from Evan Rinehart (June 15, 1938);

Letter from Evan Rinehart (July 13, 1938).

2436. Also on June 15, 1938, Evan Rinehart wrote to R. M. Woodward stating that "the Bureau of Marine Inspection has set up a series of official tests which will be conducted by the Bureau of Standards. They have selected Marinite and our insulation as the first test. If

successful, the materials will be officially approved and listed * * *." These tests were preliminary to the Maritime Commission writing a specification to cover Marinite.

Exhibit:

Letter from Evan Rinehart (June 15, 1938).

2437. A week later on June 23, Evan Rinehart wrote to H. C. Shepheard of the Bureau of Marine Inspection and Navigation requesting further information about the requirement that a Class B bulkhead be composed of a panel which is incombustible or highly fire retardant. On June 30, 1938, Shepheard responded that a Class B bulkhead material could be made with combustible components so long as the aggregate mixture of materials was incombustible or highly fire retardant. Shepheard promised that a material would not be rejected in testing because of its composition; it would only be reviewed based upon its test performance.

Exhibit:

Letter to Evan Rinehart (June 30, 1938).

2438. When he received Shepheard's letter, Evan Rinehart wrote to G.B. Brown suggesting that wood fiber be put in Marinite to increase its strength and reduce it costs since the Maritime Commission would not reject it for containing combustible materials.

Exhibit:

Memo from Evan Rinehart to G.B. Brown (July 5, 1938).

2439. On August 8, 1938, Manville issued Report No. 28-462 which indicated that the Bureau of Standards' test results on Marinite duplicated those found in Johns-Manville's Report No. 28-446.

Exhibit:

Johns-Manville "Laboratory Reports on Marinite", at 5 (November 15, 1938).

2440. On October 21, 1938, the Bureau of Standards performed fire tests on Marinite. Evan Rinehart and D. T. Colton attended the tests as Johns-Manville representatives. On November 18, 1938, Colton filed Johns-Manville Report No. 28-496 summarizing the test results and concluding that Marinite "met all requirements for Class B Bulkhead."

Exhibit:

Johns-Manville Report No. 28-496 (November 18, 1938).

2441. Sometime in late 1938 or early 1939, Bert Tower wrote a Maritime Commission specification covering Marinite. In writing the Maritime Commission specification covering Marinite, Bert Tower merely described the commercial millboard product which was then readily

available, using terms broad enough to allow competition between competing products.

Witness:

Burton Tower.

2442. Manville participated in the Maritime Commission's writing of the specification covering Marinite. On February 23, 1939, the U.S. Maritime Commission wrote to Manville's Evan Rinehart thanking him for an earlier letter, for confering with the U.S. Maritime Commission on February 18 about specifications for insulation products and for cooperating generally with the U.S. Maritime Commission.

Exhibit:

Letter to Evan Rinehart (February 23, 1938).

2443. During WWII the United States did not know that Marinite or Marine Sheathing posed potential health hazards. In the 1945 asbestosis study of private and public shipyards by Dreesen, Maritime Commission shipyards were not included in the study because it was believed that the asbestos-containing Marinite and Marine Sheathing used by the Maritime Commission did not pose a health hazard.

Exhibit:

Letter from Philip Drinker, Chief Health Consultant, to Bureau of Medicine and Surgery (January 31, 1945).

2444. When it marketed Marinite to the United States during WWII, Manville did not inform the United States of any health hazards associated with the use of Marinite.

2445. To the contrary, prior to 1979, Johns-Manville had consistently and adamently maintained that there was no health hazard created in using Marinite and Marine Sheathing.

(4) The General Ship Specifications Relied On By Manville Do Not Establish That Asbestos Was Required Or Actually Installed On The Specific Ships At Issue Here

(a) Navy Ship Design and Ship Specifications

2446. The Bureau of Ships was responsible for designing, constructing, repairing and outfitting Navy ships. This Bureau built or supervised the construction of over 9,000 ships during WWII, including 1,583 combatant ships, 4,099 landing craft and 3,444 auxilary vessels.

Exhibits:

Navy Dept., Bureau of Ships, Administrative History of the Bureau of Ships, Vol. II, at 255 (1952);

H.G. Smith and L.C. Brown, "Ship Statistics" in The Shipbuilding Business in the United States 119, 120, 125 (1948).

2447. The actual construction of the ships under the cognizance of the Bureau of Ships was done in either Navy shipyards or private shipyards. During WWII there were approximately 10 Navy yards and 125 private yards. The field representatives of the Navy in the private yards were the Supervisors of Shipbuilding ("SupShips").

Exhibit:

Furer, Administration of the Navy Department During World War II 225 (1958).

2448. In order to expedite construction, SupShips were given great latitude in making decisions concerning changes in the plans and specifications.

Exhibit:

Navy Dept., Bureau of Ships, Administrative History of the Bureau of Ships, Vol. II, at 255 (1952).

2449. This latitude also existed for conversion, repair and overhaul work. The Bureau of Ships gave the District Commandants the authority to prepare and approve detailed conversion and repair specifications and conversion plans.

Exhibit:

Memorandum, Bureau of Ships to All Commandants of Naval Districts less Sixteenth Naval District and All Superintendents of Shipbuilding (February 1, 1941).

2450. There were only 14 standardized plans for the construction of Navy ships.

Exhibit:

Furer, Administration of the Navy Department in World War II 225, 230 (1959).

Witness:

John Nachtsheim.

2451. The Hull Design Section prepared the contract plans covering hull form, structure, general arrangement, armor, turrets, ventilation, hull piping systems, steering gear and other hull features.

Exhibit:

Navy Department, Bureau of Ships, Organization of the Design and Construction Branches of the Shipbuilding Division at D- 3-4 (October 1, 1944, rev. July 1945).

2452. The Machinery Design Section was responsible for the design of the machinery and electrical plant installations for all naval vessels.

Exhibit:

Navy Department, Bureau of Ships, Organization of the Design and Construction Branches of the Shipbuilding Division at D-4 (October 1, 1944, rev. July 1945).

2453. The Technical Sections, of which there were 19, were responsible for the design of various systems and components. Three technical sections (Hull Arrangements,

Air Conditioning, and Pipes, Valves and Fittings) had some responsiblity for insulation. Each of these sections in turn was also responsible for 20 or more other systems or components of a ship.

Exhibit:

Navy Department, Bureau of Ships, Organization of the Design and Construction Branches of the Shipbuilding Division, at ST-7 - ST-27 (October 1, 1944, rev. July 1945).

Witness:

John Nachtsheim

2454. These Technical Sections could only recommend to the Design Branch as to necessary or desirable changes in those sections of the General Specifications for Vessels and the General Specifications for Machinery which dealt with the area under their cognizance.

Exhibit:

Navy Department, Bureau of Ships, Organization of the Design and Construction Branches of the Shipbuilding Division, at ST-8 (October 1, 1944, rev. July 1945).

2455. The contract plans were more detailed than preliminary designs in order to enable shipbuilders to make bids or negotiate reasonable contracts. The contract plans included the detail and special specifications. These plans, in turn, were utilized by the shipbuilders to create working plans.

Exhibit:

Furer, Administration of the Navy Department during World War II at 227 (1958).

Witness:

John Nachtsheim.

2456. After a shipyard drafted working plans, that shipyard built ships pursuant to the plan and sold the plans to other shipyards at cost.

Exhibits:

Contract for the Construction of Four 220-foot minesweepers between the United States and Savannah Machine and Foundry (Aug. 3, 1943).

Witness:

John Nachtsheim.

2457. The General Specifications for Ships and the General Specifications for Machinery relied on by Manville do not themselves indicate that asbestos containing products were required for ships at the test shipyards. The General Specifications for Building Vessels of the United States Navy, together with the General Specifications for Machinery for Vessels of the Unites States Navy in effect during World War II, were issued by the Bureau of Ships to cover all the work of building, equipping and outfitting vessels.

Exhibit:

General Specifications for Building Vessels of the United States Navy, Bureau of Ships, Sec. A-1-a (September 16, 1940).

Witness:

John Nachtsheim.

2458. Detail Specifications are used in conjunction with and supplement the Ship (Hull) Specifications. Details not covered by the Ship Specifications are included in either the contract plans or the Detail Specifications. Detail specifications sometimes specifically invoke the general specifications and sometimes completely departed from them. Thus, even if the Ship Specfications provided for asbestos products, the detail specifications could completely void that requirement and require the use of an alternate product (asbestos or non-asbestos) or require any insulation product that satisfied certain performance standards.

Witness:

John Nachtsheim.

2459. In the event of a conflict, there was an order of precedence for whether the requirements of the contract, the specifications, or contract plans should prevail. The requirements of the shipbuilding contract always prevailed over the specifications which, in turn, always prevailed over the contract plans. Thus, the general

specifications for ships, (or the general specifications for machinery) do not indicate what the insulation requirements actually were for any particular ship. It is necessary to obtain the detail specifications and the special specifications made applicable by the contract before any determination can be made as to what insulation was actually required.

Witness:

John Nachtsheim.

2460. In building ships during WWII, the Navy modified the General Specifications through detail and special specifications.

Exhibit:

General Specifications for Building Vessels of the United States Navy at A-1-b (November 15, 1943).

Witness:

John Nachtsheim.

(b) Maritime Commission Ship Design and Ship Specifications

2461. The Maritime Commission developed standardized ships in order to reduce costs and thereby reduce construction differential subsidies. There were three types of dry cargo C-type standard ships, varying by size. The C-types were designed initially by the Maritime

Commission after consultation with the Navy, operating companies, and trade associations.

Exhibit:

F. Lane, Ships for Victory 31 (1951).

Witness:

Burton Tower.

2462. The operating companies modified the long-range ships for their own purposes within the requirements for receiving a construction-differential subsidy. The ship specification for the standard or C-type ships embodied those requirements.

Exhibit:

F. Lane, Ships for Victory 31 (1951).

Witnesses:

Joseph Barnes;

Burton Tower.

2463. The only Maritime Commission-subsidized ships built at the four test shipyards during the period at issue here were built at Bethlehem Steel's Fore River Yard for American Export Line. The United States never owned these ships, but simply provided subsidies to the shipper for whom they were being built. These eight vessels were C-3 type merchant ships, also designated as C-3E because they had a

different steam plant from the standard C-3 design. The shipyard itself (i.e., Bethlehem Steel) designed these versions of the C-3.

Exhibits:

U.S. Maritime Commission, Permanent Survey of Completed Contracts, 2, 4 (Undated);

E. S. Dillon, L. Hoffman & D. Roseman, Forty Years of Ship Designs Under the Merchant Marine Act, 1936-1976 3-4 (The Society of Naval Architects and Marine Engineers reprint) (1976).

2464. There is no evidence in the C-3 ship specification provided by Manville that asbestos insulation was required on C-3 ships. Thus, there is no evidence through the ship specifications that asbestos was required aboard any Maritime Commission ship at either of the two private test shipyards.

Exhibit:

Specification for the Construction of a Single Screw Passenger and Cargo Vessel Design C-3, at 11-H (September 1938).

Witness:

Burton Tower.

2465. Indeed, the C-3 ship specification specifically provided that the operating company and the Maritime Commission were permitted to substitute materials if the substitute was a "material of equal merit."

Exhibit:

Specifications for the Construction of a Single Screw Passenger and Cargo Vessel Design C-3, at 11-H (September 1938).

2466. Additionally, Maritime Commission regional offices had the authority to make changes at the shipyard as long as it did not affect "design." A change in insulation, such as pipe covering, was not a change that affected "design."

Exhibits:

U.S. Maritime Commission, East Coast Regional Office, Philadelphia, Pennsylvania "General Instructions to Inspectors" (Dec. 1, 1942);

E. S. Dillon, L. Hoffman & D. Roseman, "Forty Years of Ship Designs Under the Merchant Marine Act, 1936-1976" 3, The Society of Naval Architects and Marine Engineers reprint 1976.

2467. As with the Navy order of precedence, if there was a discrepancy between the plans and specification, and the contract for the construction of a ship, the contract and its provisions prevailed.

Exhibits:

Contract between the U.S. Maritime Commission and Western Pipe & Steel Co. for vessels incorporating Design C-3-[]2-Turbine Propulsion, Art. 3(b) (September 2, 1943);

Contracts for the Construction of a Single Screw, Cargo Vessel Hull No. 162 between the U.S. Maritime Commission and Federal Shipbuilding and Dry Dock Co. (November 28, 1938).

Witness:

Burton Tower.

2468. The contracts for other Maritime Commission ships built at non-test shipyards, such as Liberty Ships and Victory Ships, also included language that the provisions in the contract superseded the plans and specifications if there was an inconsistency.

Exhibits:

Contract between the U.S. Maritime Commission and Bethlehen-Fairchild Shipyard for 44 vessels of Design VC2-S-A[]2 (August 10, 1944);
Contract for the Construction of Emergency Cargo Ships between the U.S. Maritime Commission and Oregon Shipbuilding Corp. (May 1, 1941)

2469. Thus, there is no evidence that asbestos was required for pipe covering or other thermal insulation in the subsidized ships built at Fore River, or that any asbestos-containing insulation was actually used on the Maritime Commission-subsidized ships built at Fore River. Additionally, there is no evidence that Liberty ships or Victory ships required asbestos for pipe covering or other thermal insulation.

2470. Asbestos was not used extensively by the Maritime Commission. Indeed, geared turbine propulsion plants on the Maritime Commission ships ran at only 750 degrees Farenheit, a temperature lower than the temperature

range appropriate for asbestos products used in high pressure steam power plants.

Exhibit:

Letter from Phillip Drinker to Bureau of Medicine and Surgery (January 31, 1945);

E. S. Dillon, L. Hoffman & D. Roseman, "Forty Years of Ship Designs Under the Merchant Marine Act, 1936-1976". 3, The Society of Naval Architects and Marine Engineers, reprint 1976.