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Manning 1/8-11/82

SUMMARY OF TRANSCRIPT OF TESTIMONY
 SHELDON H. MANNING
 January 8, 1982
 In Douglas C Irvine, Jr., v J-M Corp

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SUMMARY OF TRANSCRIPT OF TESTIMONY
SHELDON H. MANNING
January 8, 1982

DIRECT EXAMINATION BY MR. CAMPILLO

Personal, Education
and Employment Back-
Ground
p. 1500-1502

Deponent is retired Industrial Hygienist. He has a BS Degree in Commercial Chemistry from Penn State. Has taken some short courses given by the USPHS in Industrial Hygiene and Radiological Health and Hearing Conservation. Following completion of his formal education he worked three years for Hooker Electric Chemical Company as a chemical engineer; then worked as a chemist for Bethlehem Steel Corp. for 14 years doing mostly quality control work. Next was employed by Pennsylvania Department of Health as his first employment as an Industrial Hygienist and remained there from September 1961 until February 1967.

Duties as Industrial
Hygienist w/the Dept.
p. 1502-1503

While he was with the Department of Health he had a two week course given by the USPHS called Industrial Hygiene fundamentals and a two week course given by the USPHS in radiological health. He later had short courses in hearing conservation and in radiological health. The Department of Health routinely inspected factories to look over the environment and when they came on something they had doubts about they would routinely take measurements. If it was air contamination they took air samples in the workers breathing zone to determine level of exposure.

Threshold Limit
Values
p. 1503-1505

TLV are set by a threshold limit committee which is part of the ACGIH and meets every year to revise, according to the information at the time. In the 1960's there were probably about 250 materials listed with TLV. The TLV for asbestos as of 1967 was set at 5 million particles.

Duties as Industrial
Hygienist at Long
Long Beach Naval
Shipyard
p. 1505-1507

In 1967 he went to work as the only industrial hygienist at the Long Beach Naval Shipyard. He was required to inspect the industrial environment, familiarize himself with it, take measurements when necessary

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conditions at the shipyard. He familiarized himself with the Navy regulations and reviewed material he gathered from his week in indoctrination at Puget Sound Naval Shipyard. It took over a year to get the equipment he requested to take dust samples. The Navy wasn't subscribing to Industrial Hygiene Periodicals before he started.

Puget Sound Naval
Shipyard
p. 1515-1517

He spent a week at Puget Sound to familiarize himself with procedures. They had a laboratory and good reference material; the staff of the industrial hygienist consisted of the head Industrial Hygienist, two other hygienists, a chemist, two secretaries, two health physicists and two Radiation Health Technicians. The department at Long Beach consisted solely of himself. Puget had an effective program. They were taking samples of the environment and writing reports and had effective control of health hazards including asbestos exposure.

Resistance in developing Industrial
Health Program
p. 1517-1522

He experienced resistance in developing the program from George Watkins. He didn't allow any written reports and didn't have much faith in taking samples. He felt Watkins wasn't backing an aggressive Industrial Hygiene program. He left after two years and when Dr. Smith began, Manning began writing reports because Smith never put a stipulation on him not to. The first report he wrote was an asbestos report. He was getting nowhere in a situation that required improvement fast. His job description charged him with great responsibilities without adequate means to carry them out. He had minimal equipment, an increasing amount of paper work, no secretary and ventilation problems in the shipyard that weren't being taken care of. The labeling of toxic materials was done by supply people and usually wasn't done adequately; the ventilation equipment was designed by the foreman instead of engineer. He was finally given a technician in the fall of '72 and a secretary in June '73. At the time he left in February of '74 hiring procedures to find a replacement hadn't commenced.

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and make reports and recommendations for control of things he felt were needed. His job was within the medical department at the shipyard and he reported directly to the medical officer. When he first went aboard, the Bureau of Medicine and Surgery was in an advisory capacity and he didn't report directly to anyone in medicine and surgery. In August 1972, his job administratively was moved into the Long Beach Naval Regional Medical Center and the administrative head was in the Long Beach Naval Hospital. When he started, the medical officer was Dr. George Watkins.

Dr. Jose Smith
p. 1508

Dr. Smith replaced Dr. Watkins as Medical Director and came aboard sometime in May 1969. Was still serving in that capacity when he left the shipyard. His office was in the dispensary at the shipyard and after Watkins left he reported directly to Smith.

Safety Dept.
Functions in
Industrial Hygiene
prior to his arrival
p. 1508-1513

Between 1964, when Bill Marr left the position of industrial hygiene, until the time Manning started, there was no industrial hygiene department at the shipyard. In an effort to determine files, records and equipment available when he started he determined that the industrial hygiene functions were being done by the safety department and the industrial laboratory. Through looking at the available records he found that dust samples weren't being taken during that period of time and that the safety department limited themselves to putting material in the safety manual pertaining to industrial hygiene. The Industrial Lab answered questions on the toxicity of various materials.

General Tasks as
Industrial Hygienist
at the Shipyard
p. 1513-1515

His first day as Industrial Hygienist at the shipyard he found a desk with an empty filing cabinet. No references, no dust monitors and no secretary. He found some reference books from the safety department and some materials stored in the Industrial Lab which was mostly broken equipment and and he sent most of it back. The first thing he did was request very simple dust sampling equipment and began collecting reference material. He did inspection work to familiarize himself with the working

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Instructions from
Superiors re:
Asbestos Dust Control
p. 1522-1524

Some instructions regarding Asbestos dust control were authored by a Naval ship's system Command. He was instructed to take samples in the working atmosphere and determine the level of exposure and monitor results of physical and medical exams of these workers. He was responsible for making recommendations for hazard control. The instructions concerning control materials weren't being followed at the shipyard when he arrived. The instructions that came from command while he was there were not totally implemented in a consistent fashion.

Tasks performed as
Industrial Hygienist
at the Shipyard
p. 1524-1526

About 15% of his time was devoted to dealing with asbestos dust. The remaining 85% was devoted to things like monitoring breathing air in the shipyard, hearing conservation, hazard pay and mercury problems. When there were complaints brought to his attention he had to take of them. When Watkins was his superior there were tasks put on him that he felt someone with a lot less skill could be doing like fitting ear plugs, and collecting urine samples from people exposed to lead. He was responsible for the quarterly report of the whole dispensary, which was completely out of his field because he was involved in only a small portion of this report. These tasks took a substantial amount of time away from his hygienist functions.

Recommendations
outlined in his
6-30-70 Memorandum
p. 1526-1529

He first requested a long overdue promotion that he thought he had coming. He asked for a qualified IH assistant but instead got a technician with a high school background. He requested to be relieved of the extraneous duties that had been imposed on him such as ear plug fitting. He asked that he be sent to the Industrial Hygiene Conference annually because they were very valuable in making contact with other people on a one to one basis. He prepared this memorandum in his official capacity as Industrial Hygienist.

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William Reitze
p. 1530-1531

He met Bill Reitze for the first time at an Industrial Hygiene conference and later when he visited the shipyard with the tour group associated with Dr. Selikoff in connection with an asbestos related study in '70 or '71.

Training Seminars
in Asbestos Health
Hazards
p. 1531-1533

The first indoctrination session was in February of '68 and he participated along with the entire supervision of the pipe-coverers. The first session was to working men who installed pipe covering and insulation. He presented Dr. Selikoff's initial findings and didn't hold anything back. He informed them of the increased incidence of cancer among pipe coverers exposed to asbestos and explained that non-smoking workers had less incidence of cancer. He advised they stop smoking if they worked with asbestos. He recommended the use of respirators whenever possible and good house keeping. The next meeting was held in the summer of '71 and indoctrinated the first line supervisors of all the shops as a way of getting information to workers who weren't exposed directly to asbestos. The production people created resistance because these meetings pulled the worker away from his work.

Medical Screening
p. 1533-1534

When he first came there, there was an ongoing program carried out at Memorial Hospital by Dr. Ellestad where workers were given an annual x-ray and extensive pulmonary function studies were done on all pipe coverers yearly. There was no communication to employees as to the findings.

CROSS EXAMINATION BY MR. KNOTT

X-ray program
p. 1535-1538

The X-ray program was during the entire time from 1967 to February 1974; he was interested in what was happening to these people and reviewed all reports of the x-ray reader. Dr. Lawton, head of the Occupational Health Branch requested that Manning review them and give him a report. The x-ray reports were delivered to the x-ray department at the shipyard. There was no official requirement that the x-ray department report to him or he to them. The

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pulmonary function tests were addressed to the medical officer and ended up in employees medical records. It was common knowledge that results weren't given to employees. Terry Moore had called in two employees who had serious findings on their x-ray and referred them to Dr. Owenby. Manning was there and heard it; Owenby didn't want to handle it and sent them to the medical officer who examined them with his stethoscope and told them that they were alright and to go back to their jobs. This was policy and Webay, head of pipe coverers and insulators often complained that no one was notified of anything. From reading reports written by the reading radiologists, at least a third of these people had abnormal x-ray findings. The x-ray program was for pipe coverers and insulators and was later expanded to boiler-makers exposed to asbestos.

Noise level problem
p. 1539-1540

He spent about 20% of his time on the major problem of noise control. The Department of Labor decided hearing loss due to noise was a compensable injury. In 1972 he spent months giving indoctrination to the whole shipyard establishment on hearing loss claims. They had a program of examining everyone in the shipyard to determine if they had hearing loss and he thinks people were informed if they did.

The ACGIH
p. 1541

The ACGIH is a professional society, it didn't have any power to make laws, only recommendations.

5 million particle
TLV
P. 1541-1544

The Pennsylvania Department of Health had adopted the TLV's in their entirety in the regulations of the Department of Health. There was no federal law in 1967. The five million theoretically would mean zero asbestos fibers or five million asbestos fibers. It was dust particles. The governmental TLV's set for asbestos happened when OSHA went into effect in 1970. It was initially set at 5 million particles and was changed in late '70 or '71 to 12 fibers per cc longer than five microns; it was later modified to five fibers per cc longer than five microns and a two fiber per cc came into effect in about 1975.

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Dust Sampling
p. 1544-1546

He needed dust sampling equipment also to take samples of dust from sandblasting. He received the equipment in June '68. He did sampling on a sporadic basis whenever he found time. He took his first set of samples over a nine month period and made a report. When the 5 fiber per cc standard came into effect it required different equipment and needed a phase contrast microscope. As soon as he obtained the equipment he began sampling. Sometimes Webay requested sampling.

His observation of
Workers
p. 1546-1549

He observed ladders installing insulation and other workers in other trades in the work space at that time; he observed machinists, pipe fitters, electricians, welders and riggers in that work space. He was aboard ship when insulators did ripout and felt it was the dustiest operation in which the asbestos workers were involved. He's seen other workers in the work space during ripout from 1967 to 1974. Initially he spent about a third of his time aboard ship, the first year or two; later it got down to maybe 20 or 15%. If he was doing sampling on asbestos he would be on board ship probably 3 hours in the morning to count the samples the afternoon. During ripout the concentrations of asbestos fibers were high and exceeded 5 million TLV.

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Manning, SH
01-08-82

SESSION HISTORY

SET 1 - 42 DOCUMENTS IN GOVTRS DOCNO=JFG00001
SET 2 - 21 DOCUMENTS IN GOVTRS DOCNO=SHMT0001

LPO5R052 - USERID: RLEG062 COMMAND: P.2,TEXTB, SORT PAGE 1
 DATABASE: GOVTRS DATE: 03/25/86 TIME: 141925

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0000 STARTING PAGE: 0000 ENDING PAGE: 0000
 TOPIC: TABLE OF
 CONTENTS

IRVINE V JM
 TRIAL TRANSCRIPT OF
 SHELDON HIETT MANNING
 LONG BEACH NAVAL SHIPYARD (LBNS)
 JANUARY 8, 1982
 LOS ANGELES, CALIFORNIA
 VOLUME 1

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DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0001 STARTING PAGE: 1500 ENDING PAGE: 1502
 TOPIC: BACKGROUND
 INFORMATION

(EXAMINATION BY CAMPILLO FOR JMC.) Manning,SH is currently a retired industrial hygienist. Received a Bachelor of Science degree in commercial chemistry from Pennsylvania State University.

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Took some short courses through the United States Public Health Service (USPHS) in industrial hygiene, radiological health and hearing conservation. After graduating from Pennsylvania State University, Manning,SH worked for three years as a chemical engineer in the production end of chemical manufacturing for Hooker Electric Chemical Company in Niagara Falls, New York. After working there for three years, Manning,SH went to work as a chemist in quality control for Bethlehem Steel for over 14 years. Worked as an industrial hygienist with the Pennsylvania Department of Health after leaving Bethlehem Steel; that is his first job as an industrial hygienist. Manning,SH stayed with this department from September, 1961 until February, 1967. During Manning's,SH tenure with the Pennsylvania Department of Health he received two, two-week courses given by the United States Public Health Service (USPHS): one course was on industrial hygiene fundamentals while the other concerned radiological health. Manning,SH also had a course in hearing conservation that lasted three days and possibly another week long course in radiological health.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0002 STARTING PAGE: 1502 ENDING PAGE: 1505
TOPIC: DUST SAMPLES/THRESHOLD LIMIT VALUES

Manning,SH monitored dust samples when working with the Pennsylvania Department of Health. Routine inspections at factories provided a measurement for things such as noise exposure or heat, which might adversely affect a workers health. For example, if there was concern for air contamination, samples of air would be taken in the workers breathing zone to determine the level of exposure. Manning,SH is familiar with "TLV" or threshold limit values. A threshold limit value, in the case of toxic material, is the concentration of a contaminant which a worker could breathe over his working life, without the expectation of serious disease. It was a good guideline, and later became part of the legal structure. Threshold limit values are set by a threshold limit committee which is part of the American Congress of Governmental Industrial Hygienists (ACGIH) and meets every year to revise, according to available information. Threshold limit values exist for a variety of substances. During the 1960's, this committee set threshold limit values for an estimated 250 materials including silica dust, asbestos, toxic materials, benzene, carbon monoxide, carbon tetrachloride and a few exotic chemicals used only in the dye industry. In 1967, the threshold limit value for asbestos was 5 million particles per cubic foot of air. If exposure was less than that value, there would be no considerable health hazard to workers around asbestos.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0003 STARTING PAGE: 1505 ENDING PAGE: 1507
TOPIC: RESPONSIBILITIES OF THE INDUSTRIAL HYGIENIST

In 1967 Manning,SH was the only industrial hygienist at Long Beach Naval Shipyard (LBNS). Generally, an industrial hygienist is responsible for recognition, evaluation and recommendation for control of industrial health hazards. Manning,SH was required to inspect the industrial environment at the shipyard, take samples and measurements where necessary and make reports on his finding. Manning's,SH reports also included recommendations for control of health hazards in order to upgrade the health situation at the shipyard. Manning,SH reported directly to the medical officer, who reported to the shipyard commander. Industrial hygiene was within the Medical Department.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0004 STARTING PAGE: 1507 ENDING PAGE: 1510
TOPIC: ORGANIZATION OF MEDICAL DEPARTMENT/INDUSTRIAL HYGIENE DEPARTMENT

The Bureau of Medicine and Surgery (BUMED) administers all the NAVY's medical programs. When Manning,SH first arrived at Long Beach Naval Shipyard (LBNS), he did not report directly to anyone from the Bureau of Medicine and Surgery (BUMED). However, in August, 1972 Manning's,SH job administratively moved to the Long Beach Naval Regional Medical Center (NRMCC). At that time, Manning,SH reported to the medical director who reported to commander of the medical center, who reported to people in Washington, District of Columbia. Watkins,G was the medical

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officer when Manning,SH arrived at Long Beach Naval Shipyard (LBNS). Smith,JC replaced Watkins,G as medical director in May, 1969. Manning,SH reported to Smith,JC in the dispensary at Long Beach Naval Shipyard (LBNS). There was no Industrial Hygiene Department at Long Beach Naval Shipyard (LBNS) when Manning,SH first arrived at the shipyard. That department was abolished after Marr,B, the prior industrial hygienist, left the shipyard in October, 1964. Between the time Marr,B left Long Beach Naval Shipyard (LBNS) and the time that Manning,SH arrived at the shipyard, there was no Industrial Hygiene Department. Manning,SH started up the Industrial Hygiene Department.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0005 STARTING PAGE: 1510 ENDING PAGE: 1513
 TOPIC: THE INDUSTRIAL

HYGIENE
 PROGRAM AND
 EQUIPMENT
 BEFORE MANNING'S,
 SH ARRIVAL

When Manning,SH started working at Long Beach Naval Shipyard (LBNS), he made an effort to determine what occurred before his arrival there, and whether there were any files, records or equipment available. Manning,SH determined that the functions of an industrial hygienist up until the time he started were carried out by the Safety Department. Inquiries about toxic substances would be referred to the chemists in the industrial laboratory. Manning,SH needed to make a determination of what kinds of things the dispensary and Safety Department did during the time between Marr's,B departure and Manning's,SH arrival at the shipyard. Manning,SH reviewed the available records of the dispensary and Safety Department as they pertained to the industrial hygiene issues. There were not many records to be found. No dust samples were taken during that period of time. Manning,SH believes the extent of what the Safety Department did as respects industrial hygiene, was to put materials concerning hygiene into safety manuals. The extent of the industrial labs involvement with industrial hygiene was to answer questions on the toxicity of various materials. When Manning,SH arrived at Long Beach Naval Shipyard (LBNS) he found a desk with an empty filing cabinet, no references, equipment or secretary. Did not have equipment to take dust samples or to monitor working spaces. The only materials available to Manning,SH were reference books from the Safety Department and unusable equipment stored in the industrial lab.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0006 STARTING PAGE: 1513 ENDING PAGE: 1515
 TOPIC: ACQUISITION OF

EQUIPMENT AND
 MATERIALS FOR
 INDUSTRIAL
 HYGIENE PROGRAM

When Manning,SH first arrived at the Long Beach Naval Shipyard (LBNS), he following tasks with respect to his position: requested necessary equipment to take dust and air samples; gathered books and reference materials from the library; started subscriptions to two or three professional periodicals; inspected work to become familiar with the types of hazards and working condition; became familiar with NAVY regulations; went for one week's indoctrination at Puget Sound Naval Shipyard (PSNS). The material that Manning,SH requested arrived in 1968. It took over a year to get equipment from which Manning,SH could take dust samples and monitor dust exposure of workers. The literature Manning,SH acquired were professional periodicals that pertained to industrial hygiene. There were no available subscriptions before Manning,SH arrived at Long Beach Naval Shipyard (LBNS).

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 PARA NUMBER: 0007 STARTING PAGE: 1515 ENDING PAGE: 1517
 TOPIC: PUGET SOUND

NAVAL SHIPYARD'S
 (PSNS)
 INDUSTRIAL
 HYGIENE PROGRAM

Manning's,SH training at Puget Sound Naval Shipyard (PSNS), in Bromontion, Washington, consisted of becoming familiar with the shipyard's procedures and working with its industrial hygiene department's setup. Considered Puget Sound Naval Shipyard (PSNS) to have one of the best Industrial Hygiene Departments at that time. That shipyard had a large staff, good reference material and a library. The staff at Puget Sound Naval Shipyard (PSNS) consisted of the head industrial hygienist, three other industrial hygienists, a chemist, two secretaries and two health physicists, two radiation health technicians. At that same time, the Industrial Hygiene Department at Long Beach Naval Shipyard (LBNS)

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consisted solely of Manning,SH. The industrial hygiene program at Puget Sound Naval Shipyard (PSNS) effectively controlled industrial health hazards including asbestos dust exposure; it was a solid industrial hygiene program where the staff took samples of the industrial environment and wrote reports. In 1967 while Long Beach Naval Shipyard (LBNS) had no ongoing industrial hygiene program, Puget Sound Naval Shipyard (PSNS) had a well staffed, well equipped and effective ongoing program.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0008 STARTING PAGE: 1517 ENDING PAGE: 1522
TOPIC: INADEQUACIES/RE
DISTANCE TO
THE INDUSTRIAL
HYGIENE PROGRAM

Manning,SH wrote a report in 1970 which summarized his experiences at Long Beach Naval Shipyard (LBNS) as respects developing an industrial hygiene program. (INTRODUCED EXHIBIT 1220: MEMO FROM MANNING,SH TO SMITH,JC, JUNE 30, 1970.) Manning,SH is author of Exhibit 1220, a memorandum to Smith,JC dated June 30, 1970. Manning,SH wrote Exhibit 1220 in order to point out the considerable resistance from Watkins,G to the development of an industrial hygiene program. Watkins,G was the medical director prior to Smith,JC. Watkins,G did not allow written reports and regarded industrial hygienists as "pack rats" who collected equipment that did not amount to anything. Watkins,G would not give Manning,SH a promotion that Manning,SH was eligible for until after he left. Watkins,G did not support any kind of aggressive industrial hygiene program. When Smith,JC replaced Watkins,G, Manning,SH immediately wrote Smith,JC an asbestos report. Smith,JC had no stipulations on written reports. Manning,SH wrote the asbestos report, which is Exhibit 1220, to point out clearly the resistance he received, the need for an adequate means to carry out his responsibilities as industrial hygienist. As of June 30, 1970, the industrial hygiene program was not as effective as Manning,SH envisioned. Manning,SH believes that as of 1970 the following conditions needed attention and exemplify the inadequacy of the means to carry out responsibilities as industrial hygienist: there was minimal equipment to monitor radiation and hearing conservation problems; no secretarial help was provided for an increasing amount of paperwork; ventilation problems were not adequately cared for; the Supply Department did an inadequate job of labelling toxic materials; Manning,SH had no input into the initial design of ventilation equipment, which was often designed by a foreman, not an engineer. Manning,SH believes that as a one-man industrial hygiene program he was unable to create necessary changes. In the fall of 1972, Manning,SH received a technician; in 1973, received a secretary. Manning,SH left Long Beach Naval Shipyard (LBNS) in February, 1974, at which time there were no interviews or procedures to find his replacement. There was no industrial hygienist replacement ready to take over after Manning's,SH departure.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0009 STARTING PAGE: 1522 ENDING PAGE: 1524
TOPIC: INSTRUCTIONS
ON ASBESTOS
DUST CONTROL

As industrial hygienist, Manning,SH received instructions from superiors specifically pertaining to asbestos dust control. Some of these instructions were authored by the Naval Ships Systems Command (NVSHS). These instructions on toxic materials were to take samples in the working atmosphere to determine the level of exposure, and monitor results of physical, medical examinations of workers. The instructions also called for the industrial hygienist to make recommendations for control of hazards. The instructions concerning the control of materials were not being consistently or regularly followed when Manning,SH arrived at the shipyard. Subsequent to Manning's,SH arrival at the shipyard, these instructions were implemented in part, but not totally.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0010 STARTING PAGE: 1524 ENDING PAGE: 1526
TOPIC: RESPONSIBILITIES
S AS INDUSTRIAL
HYGIENIST

Manning,SH spent around 15 percent of his time dealing with asbestos dust as a possible health hazard while at Long Beach Naval Shipyard (LBNS). During the remaining 85 percent, performed the following tasks: monitored breathing air; took care

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of the hearing conversation program; took samples of contaminants in the air and responded to complaints; took care of ventilation problems, mercury, silica and solvent vapor problems. Manning,SH was also frequently consulted on hazard pay. Manning,SH believes he was also involved in tasks that were not part of the industrial hygienist's responsibility. For example, Manning,SH performed skills which less qualified people could do such as fitting ear plugs and screening people supposedly exposed to lead. Manning,SH believes the screening procedure, accomplished through urine samples, was useless since lead had been abolished at the shipyard for many years. In addition, Manning,SH was given responsibility for the quarterly report for the whole dispensary, even though it was completely out of his field. These tasks took a substantial amount of time away from Manning's,SH performance as industrial hygienist. Manning,SH spent five to seven days a quarter on the quarterly report; spent time continually fitting ear plugs; spent three to four days a month on the porphyrin or urine test.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0011 STARTING PAGE: 1526 ENDING PAGE: 1529
 TOPIC: REQUESTS FOR
 THE INDUSTRIAL
 HYGIENE PROGRAM

(REFERS TO EXHIBIT 1220.) Manning,SH recommended in Exhibit 1220 that the long overdue promotion he had coming, be resolved. Although Manning,SH was qualified for "GS12" level soon after arriving at the shipyard, three years later he was still a "GS11." Manning's,SH concern for the promotion was for status, not money. Manning,SH also asked for a telephone and a larger staff, including a qualified industrial hygiene assistant, a secretary. In response to Manning's,SH request for a qualified industrial hygiene assistant he received a technician with a high school background. Requested to be relieved of extraneous duties described previously. Manning,SH also asked to be sent to the Industrial Hygiene Conference annually because these conferences were valuable in making contacts and discussing mutual problems. The conference was also practical in that employees and prospective employers could meet. This conference was also important to Manning,SH because at the same time it was held, there was also a meeting of the Naval Industrial Hygiene Association (NIHA) where NAVY people could discuss mutual problems. Manning,SH believes that Exhibit 1220 accurately represents the conditions and events taking place while he was at Long Beach Naval Shipyard (LBNS). Prepared Exhibit 1220 in the official capacity as the industrial hygienist at the shipyard.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0012 STARTING PAGE: 1530 ENDING PAGE: 1531
 TOPIC: REITZE,WB AND
 VISITS FROM
 MOUNT SINAI
 (MTS)

Manning,SH met Reitze,WB for the first time at one of the industrial hygiene conferences. Met Reitze,WB later when he visited the Long Beach Naval Shipyard (LBNS) with Selikoff,IJ and the group from Mount Sinai (MTS). Selikoff's,IJ visit to the shipyard was in connection with an ongoing study of asbestos workers and asbestos-related disease. Believes that Reitze's,WB visit occurred on the second visit, in 1970 or 1971, from people at Mount Sinai (MTS). Mount Sinai (MTS) people visited the shipyard for the first time in 1969, but Reitze,WB was not part of the group.

DOCUMENT NUMBER: SHMT0001 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0013 STARTING PAGE: 1531 ENDING PAGE: 1533
 TOPIC: TRAINING AND
 EDUCATIONAL
 MEETINGS ON
 ASBESTOS
 HAZARDS

Manning,SH recalls that asbestos-containing insulation products were used at the time he left Long Beach Naval Shipyard (LBNS) in 1974. Between 1967 and 1974, Manning,SH held training seminars on asbestos as a health hazard. The first session was an indoctrination session held in February, 1968. The participants in this session included the entire supervision of pipe coverers and the safety officer. Meese,F, Ay,W and other supervisors were of the first session. Manning,SH held the first session for working men who installed pipe covering and insulation. Manning,SH informed these men of Selikoff's,IJ findings that the incidence of cancer increases among workers who were exposed to asbestos; in addition, nonsmoking asbestos workers had considerably less

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incidence of cancer. Manning,SH also told the workers what part of their jobs were most hazardous, and that respirators should be worn. After the first session, there were four additional training meetings with the second meeting held in 1971. The second meeting lasted 4 days and consisted of Manning,SH, Ay,W and the safety director going over material and indoctrinating the first line supervisors of all shops. At the time of the second meeting it was suspected that many people were exposed to asbestos that were not directly working with it. Manning,SH hoped that meeting would result in all the workers getting that knowledge. There was initial resistance to Manning's,SH meetings because it pulled the worker away from production.

DOCUMENT NUMBER: SHMTOOO1 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0014 STARTING PAGE: 1534 ENDING PAGE: 1535
 TOPIC: MEDICAL
 SCREENING
 PROGRAM

While Manning,SH was at Long Beach Naval Shipyard (LBNS) there was a medical screening program for asbestos workers. Workers exposed to asbestos came in annually for x-rays. In addition, pulmonary function studies on pipe coverers were done by Ellestad,M. The information from Ellestad's,M studies were placed in an employee's folder or "jacket," while x-rays were stored away. There was no communication to employees as to the findings from these studies.

DOCUMENT NUMBER: SHMTOOO1 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0015 STARTING PAGE: 1535 ENDING PAGE: 1538
 TOPIC: X-RAY PROGRAM
 AND RESULTS
 FOR ASBESTOS-RE
 LATED DISEASE

(EXAMINATION BY NOTT FOR IRVINE,DC.) Manning,SH believes the x-ray program, described previously, occurred annually from 1967 to 1964. Manning,SH became involved with the x-ray program out of interest and concern for workers; had a particular rapport with Moore,T, the radiologist. Later, Lawton asked Manning,SH to deliver a report based on review of that program. The x-ray reports were physically delivered from memorial hospital back to the X-Ray Department at Long Beach Naval Shipyard (LBNS). There was no official connection between the X-Ray Department and Manning,SH. Although the pulmonary function tests were in the medical folders of employee's, Manning,SH does not know how they got there or if they were reviewed by the medical officer. Manning,SH knows these tests were kept in the medical folders because he pulled the employees' jackets and reviewed them. Moore,T, a radiologist, told Manning,SH the results of the pulmonary function tests were not given to the employees. Manning,SH became aware of this by an incident where Moore,T, on his own, called two employees who had serious x-ray findings, and referred them to Owenby. Owenby referred these employees to the medical officer, who after examining the men by stethoscope, sent them back to work. Whereby, the head pipe coverer and insulator, also frequently complained that no one was notified about anything. Manning,SH recalls that of these x-ray findings, some, but not all, came back positive as respects asbestos-related disease in pipe coverers. Although Manning,SH is not qualified to read x-ray results, he estimates that from reading reports written by the radiologist, at least one third of the pipe coverers and insulators had abnormal x-ray findings. The x-ray program was later expanded to include boilermakers.

DOCUMENT NUMBER: SHMTOOO1 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0016 STARTING PAGE: 1538 ENDING PAGE: 1541
 TOPIC: NOISE LEVEL
 PROBLEMS

When Manning,SH arrived at Long Beach Naval Shipyard (LBNS) in 1967, the a post, or "billet," of Industrial Hygienist had been abolished. Spent 15 percent of overall time with health hazards related to asbestos materials; the other 85 percent of Manning's,SH time was spent doing a variety of different duties. Spent around 20 percent of his time dealing with the noise-level problem. The noise-level problem arose when the Department of Labor (DOL) decided that noise was a compensable injury. As a result, due to an increase in noise-induced hearing loss claims, there was a lot of time spent measuring noise levels and doing paperwork. In 1972, spent months giving indoctrination or lectures to 50 people at a time on this problem. The noise problem stems from metal to metal contact, riveting, chipping and

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scouring. There was no effective resolution to the noise problem because there were no rubber chipping hammers. There was an ear protective device program where ear plugs were issued and people were informed if they had a hearing loss.

DOCUMENT NUMBER: SHMTOO01 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0017 STARTING PAGE: 1541 ENDING PAGE: 1544
TOPIC: ESTABLISHMENT
OF THE THRESHOLD
LIMIT VALUE

Manning,SH recalls previously testifying that he was a member of the American Congress of Governmental Industrial Hygienists (ACGIH). This group is a professional society, not an official governmental group. The group did not have any power to make laws or regulations, but served to make recommendations. Recalls that during the 1960's, the threshold limit value for asbestos dust particles was five million particles per cubic foot. In 1967 there was a law that the official threshold value limit for asbestos dust particles was five million particles per cubic foot. Manning,SH believes this law was a regulation of the Pennsylvania Department of Health. Has no knowledge if there was a similar regulation or law in California in 1967. Does not believe that in 1967, there was a federal law on threshold limit values. Five million dust particles refers to dust in general, not just asbestos fibers. Manning,SH believes that in 1970's, when OSHA went into effect, a nationwide threshold limit value was set at five million particles per cubic foot. In 1970 or 1971, that value was reduced to 12 fibers longer than five microns per cubic centimeter. In 1972, the threshold value limit was reduced again down to five fibers longer than five microns per cubic centimeter. In 1975, at the time Manning,SH left the shipyard, the value officially went down to two fibers per cubic centimeter.

DOCUMENT NUMBER: SHMTOO01 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0018 STARTING PAGE: 1544 ENDING PAGE: 1546
TOPIC: DUST SAMPLING

Manning,SH recalls prior testimony that upon arrival at Long Beach Naval Shipyard (LBNS), there was little equipment, so an immediate request was made for dust sampling equipment, among other things. The dust sampling equipment was needed for dust other than from asbestos, including silica dust from sandblasting. Received this dust sampling equipment in June, 1968 at which time he commenced dust sampling. Manning,SH performed dust samples on a sporadic basis, whenever he could find the time. The first set of dust samples occurred over a nine month period, after which he made a report. It was not part of Manning's,SH function to take samples on a regular basis each month or year. Manning,SH took another set of dust samples after the regulation for five fibers per cubic centimeters came into effect. This regulation required new equipment in the form of a phase contrast microscope. After obtaining that microscope, Manning,SH proceeded with dust samples. Took samples when requested by Ay,W, the foreman. The reason Manning's,SH dust samples are taken on an irregular basis is that it coincides with the time that ships dock at the shipyard.

DOCUMENT NUMBER: SHMTOO01 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0019 STARTING PAGE: 1546 ENDING PAGE: 1549
TOPIC: OBSERVATIONS
AND DUST
SAMPLES OF
ASBESTOS
INSTALLATION
AND RIPOUT
OPERATIONS

Manning,SH has observed ladders install insulation and has seen that occur while workers from other trades were in the same work space as the ladders. Observed the following trades present while ladders installed insulation: machinists, pipe fitters, electricians, welders, riggers. Manning,SH has been on a ship while a ripout was being performed. Understands that a ripout involves taking off old insulation. The ripout operation is the dustiest operation in which asbestos workers were involved. Manning,SH has observed workers from other trades in the space where ripout operations are performed. Manning,SH believes that during his tenure at Long Beach Naval Shipyard (LBNS), initially, a third of his time was spent on board ships as opposed to other parts of the shipyard. Later, as paperwork increased, Manning,SH spent 20 to 15 percent of his time onboard ships. It was a regular practice to go onboard several ships for three to five hours, each week. In 1969, the dust surveys of ripout procedures revealed that during ripout operations, the concentration of

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asbestos fibers was high; in excess of the threshold limit value
which was five million particles per cubic foot in 1969.

DOCUMENT NUMBER: SHMTOOO1

WITNESS: MANNING, SH

LBNS

PARA NUMBER: 9999

STARTING PAGE: 0000

ENDING PAGE: 0000

TOPIC: EXHIBIT INDEX

NUMBER

1220

DESCRIPTION

IOM: Manning, SH to Smith, JC, June 30, 1970
pp. 1517, 1526

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Manville

LZ11

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Manville

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MT-PWHD-012810

Manning

STM 8201

MR. EVANS

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SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

DEPARTMENT NO. 49

HON. WILLIAM DRAKE, JUDGE

DOUGLAS C. IRVINE, JR.,

Plaintiff,

vs.

NO. SOC 51906

JOHNS-MANVILLE CORPORATION,

Defendant.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Friday, ~~October~~ 8, 1982

JANUARY

APPEARANCES:

(See Volume 1.)

COPY

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VOLUME 15

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MARLENE D. MARSH, CSR #751
WALTER RESCHMAN, CSR #
Official Court Reporters

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6 I N D E X

7 DEFENDANT'S WITNESS:

DIRECT

CROSS

8 MANNING, Sheldon H.

1500

1535

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11
12 EXHIBITS:

IDENTIFIED

RECEIVED

13 1220 - Memorandum dated 6/30/70

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LOS ANGELES, CALIFORNIA, FRIDAY, JANUARY 8, 1982, 9:40 A.M.

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THE COURT: Good morning everybody.

THE JURY: Good morning.

THE COURT: All right. Let's continue, please.

MR. CAMPILLO: Your Honor, the defendant calls
Mr. Sheldon Manning to the stand.

THE COURT: Very well.

SHELDON H. MANNING,
called as a witness by and on behalf of the defendant, having
been duly sworn, was examined and testified as follows:

THE CLERK: Be seated and state your name, please.

THE WITNESS: My name is Sheldon H. Manning.

DIRECT EXAMINATION

BY MR. CAMPILLO:

Q Mr. Manning, will you spell your last name for
us, please.

A M-a-n-n-i-n-g.

Q Sir, what is your occupation?

A I am a retired industrial hygienist.

Q Sir, would you briefly tell us what your
educational background is? In other words, how far did you get
along in school? Did you get any degrees, that kind of thing?

A I have a B.S. degree in commercial chemistry
from the Penn State University. I have some background, taken

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1 short courses in industrial hygiene and radiological health
2 and hearing conservation. Mostly given by the U.S. Public
3 Health Service.

4 Q Following the completion of your formal
5 education what did you first do professionally? What was your
6 first employment?

7 A I worked for about three years for Hooker
8 Electric Chemical Company.

9 Q In what capacity?

10 A In Niagara Falls, New York. I was a chemical
11 engineer, worked as a chemical engineer in the production
12 end of chemical manufacturing.

13 Q After that job was completed, sir, what did you
14 do next?

15 A I worked as a chemist for Bethlehem Steel
16 Corporation for 14 -- in excess of 14 years.

17 Q What were your general duties as a chemist for
18 Bethlehem Steel during that period of time?

19 A It was mostly quality control work.

20 Q Following the Bethlehem Steel employment, what
21 did you do?

22 A I was employed by the Pennsylvanian Department of
23 Health as an industrial hygienist.

24 Q That was your first employment as an
25 industrial hygienist?

26 A That is correct.

27 Q How long did you remain with the Pennsylvania
28 Department?

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1 A Five and a half years.

2 Q What years were those, to put it in perspective?
3 From what to what?

4 A From September 1961 until February of 1967.

5 Q While you were with the Pennsylvania Department
6 of Health did you receive any courses in industrial hygiene
7 or related areas?

8 A Yes.

9 Q Would you tell us about those, please.

10 A I had a two-week course given by the U.S. Public
11 Health Service, Industrial Hygiene Fundamentals I think was
12 the name of the course that was given in Pittsburgh,
13 Pennsylvania. I had a two-week course given by the U.S.
14 Public Health Service in radiological health that was given in
15 Rockwell, Maryland, their facility there.

16 I later had short courses in hearing conservation,
17 I think that lasted three days, and possibly another week course
18 in radiological health. These are all I can recall. There
19 may have been some more.

20 Q While you were with the Department of Health did
21 you have to perform any monitoring of dust samples?

22 A Yes.

23 Q Would you describe how that is commonly done,
24 in general, sir?

25 A Well, as part of the job the Pennsylvania
26 Department of Health we routinely would inspect in factories,
27 look over the industrial environment visually and when we
28 came on something that we had doubts about or needed more

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1 definition, we would routinely go in and take measurements.

2 If it was a situation where it was air
3 contamination of some sort we would take samples of air in
4 the workers' breathing zone, generally, to determine the level
5 of the exposure.

6 There were other exposures like noise exposure or
7 heat, anything that would adversely affect the health of the
8 worker in the workplace.

9 Q In connection with particles, dust particles of
10 various materials, are you familiar with a concept referred to
11 as TLV or threshold limit values?

12 A Yes.

13 Q Could you briefly describe again what that means
14 for the benefit of the jury, sir?

15 A The threshold limit value in the case of a
16 toxic material, would be a concentration of that
17 contaminant which a worker could breathe over the lifetime of
18 his working career without the expectation of having a serious
19 health problem, with the exception of a few people that would be
20 susceptible, especially susceptible to that particular
21 disease.

22 It is a good line to be used as a guideline.
23 Later it became part of the legal structure.

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24 Q Who determines or recommends these TLV's?

25 A The TLV's are set or made up by a threshold limit
26 committee, a special threshold limit value committee that is
27 part of the American Congress of Governmental Industrial
28 Hygienists and they meet every year and go over these things

and add and revise according to what information they have
at the time.

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2.1

1 Q I take it, and correct me if I'm wrong, there
2 TLV's for a variety of substances?

3 A During the time I worked, yes.

4 Q Could you give us some examples of what substances
5 had TLV's set or recommended by the committee you have described
6 during the 1960s?

7 A During the 1960s there were probably a list
8 of about 250 materials listed. The common ones would be
9 silica dust, asbestos, toxic materials, benzene in more
10 toxic vapors, carbon tetrachloride. There were quite a
11 few exotic chemicals used only in the dye industry that
12 were toxic.

13 Q Carbon monoxide would be an example?

14 A It can be among the gases.

15 Q Do you recall as of 1967 when you first started
16 at the Long Beach Naval Shipyard, which we'll get to in
17 a minute, what TLV for asbestos particles was?

18 A Yes. The TLV was set at 5 million particles
19 per cubic foot of air.

20 Q If I understood your testimony previously, this
21 5 million particle TLV would be like a safe limit. That
22 if the exposure was less than that there would be no
23 considerable health hazard to the employees.

24 Is that true?

25 A That would be true.

26 Q At least that's the general concept?

27 A Correct.

28 Q In 1967 you went to work at the Long Beach Naval

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2.2

1 Shipyard?

2 A Yes.

3 Q In what capacity?

4 A I was the industrial hygienist.

5 Q Were you the only industrial hygienist in 1967?

6 A Yes.

7 Q Mr. Manning, would you describe for us what
8 in general an industrial hygienist does at the Long Beach
9 Naval Shipyard.

10 A Briefly the job of industrial hygiene is the
11 recognition and the evaluation and recommendation for control
12 of industrial health hazards. I was charged with quite
13 a large list of things to do in specific detail.

14 But I was required to inspect the industrial
15 environment around there, familiarize myself with it, take
16 samples and take measurements in places where I felt it
17 was necessary. Later I made reports, made findings and
18 made recommendations for the control of things that I felt
19 were out of control.

20 Q Would it be things that posed a health hazard
21 to the workers or personnel at the shipyard?

22 A It all involved upgrading the health aspects
23 of the situation, yes. **PRODUCED**
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24 Q The industrial hygienist at Long Beach Naval
25 Shipyard, was that part of an overall Medical Department?
26 In other words, how does the industrial hygienist's position
27 fit in with the overall management setup of the shipyard
28 and the Navy? Give us an explanation of that, sir.

1 A Well, my job was within the Medical Department in
2 the shipyard. And I reported directly to the medical officer
3 who reported to the shipyard commander.

4 Q Does the Navy have a Medical Department in itself?

5 A I would like a little clarification. When you
6 talk about "Navy," do you mean the whole Navy?

7 Q Yes, sir.

8 A The United States Navy has a Bureau of Medicine
9 and Surgery that administers all the medical aspects that the
10 Navy is involved in.

11 To clarify that, when I first went aboard, this
12 Bureau of Medicine and Surgery was in an advisory capacity as
13 far as the shipyard commander. And my job was within the
14 shipyard structure. And I did not report directly to anybody
15 in Medicine and Surgery. That changed later.

16 Q When did that change?

17 A It changed about August 1972. My job
18 administratively was moved into what is known as the Long
19 Beach Naval Regional Medical Center.

20 The administrative head was in the Long Beach
21 Naval Hospital. And that way I reported to the medical
22 director who reported to the commander of the Medical Center
23 who reported to men in Washington.

24 Q At the time you started in Long Beach, who was the
25 medical officer at the Long Beach Naval Shipyard?

26 A Dr. George Watkins.

27 Q Are you familiar with a commander named Jose C.
28 Smith?

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1 A Yes.

2 Q Could you tell us how he fits into the structure
3 that you are describing for us?

4 A Dr. Jose Smith replaced Dr. George Watkins as
5 medical director at Long Beach Naval Shipyard. And he came
6 aboard sometime in May of 1969 and was still serving in that
7 capacity when I left the shipyard.

8 Q So after Dr. Watkins left, you would report
9 directly to Jose Smith?

10 A That is correct.

11 Q Was he stationed there at Long Beach or was he in
12 Washington or somewhere else?

13 A His office was in the dispensary and located in
14 the Long Beach Naval Shipyard.

15 Q Mr. Manning, when you started at the Long Beach
16 Naval Shipyard was there an Industrial Hygiene Department in
17 existence?

18 A No.

19 Q You were in a sense starting up the department?

20 A I was starting it up after the position had be
21 abolished for a period of time.

22 Q Do you know when the position had been abolished?

23 A The position was abolished after Bill Marr, who
24 had been a prior industrial hygienist, left the shipyard to
25 take up employment in Panama. And the job was then abolished.

26 Q That was approximately when?

27 A That would have been sometime after Marr left. He
28 left I think October of 1974.

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1 Q Do you mean '64, sir?

2 A '64.

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3 1 Q So to the best of your knowledge between '64,
2 when Mr. Marr left, and up until the time you started, there
3 was no industrial hygiene department at the Long Beach Naval
4 Shipyard, is that true?

5 A That is right.

6 Q To your knowledge was anyone carrying out the
7 functions of an industrial hygienist from some other
8 department during that period of time?

9 MR. NOTT: Object as calling for hearsay, your Honor.

10 THE COURT: Let me have the question back, please.

11 (Record read.)

12 THE COURT: This is before he arrived? What period
13 of time?

14 MR. CAMPILLO: I will lay a foundation, your Honor.

15 THE COURT: All right.

16 Q BY MR. CAMPILLO: Mr. Manning, when you started at
17 Long Beach Naval Shipyard did you make an effort to
18 determine what had occurred before you started?

19 A Yes.

20 Q Did you make an effort to determine whether or
21 not there were any files, any records, any equipment available
22 for you when you started?

23 A Yes.

24 Q In doing that did you determine whether or not
25 anyone had been carrying out the functions of an industrial
26 hygienist up until the time that you started?

27 A Yes.

28 Q What did you find out?

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1 A I found out that for the most part the industrial
2 hygiene functions as much as they were being carried out
3 were being done by the Safety Department and some of this
4 work was referred to the industrial laboratory. I found out
5 this on my own.

6 Some of the inquiries about toxic substances would
7 be referred to some of the chemists in the industrial laboratory.

8 Q At the time that you first reported for work at
9 the Long Beach Naval Shipyard what did your department
10 consist of, would you tell us, in terms of staff, equipment
11 and so forth?

12 THE COURT: Pardon me. Before you embark upon your
13 answer. We will resume our regular schedule for recesses and
14 resume at 10:15.

15 (Recess.)

16 THE COURT: All right, sir.

17 MR. CAMPILLO: Thank you, your Honor.

18 Q BY MR. CAMPILLO: Mr. Manning, in order for you to
19 perform your job as an industrial hygienist at Long Beach,
20 was it necessary for you to determine what had been done by
21 the dispensary and the safety department while there was no
22 industrial hygiene department?

23 A Oh, yes.

24 Q Can you tell us if you made a determination of
25 what kinds of things were done by the dispensary and the
26 safety department during that period of time between the time
27 Mr. Marr left and the time you started?

28 A I think probably the safety department mostly

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1 was interested in --

2 THE COURT: Just a moment, sir. I take it you are
3 waiting for a yes or no answer and you would interpose an
4 objection.

5 MR. NOTT: Yes, your Honor. I think the question calls
6 for a yes or no answer.

7 THE COURT: Would you read the question back, please.

8 (Record read.)

9 THE WITNESS: Yes.

10 Q BY MR. CAMPILLO: Did you review the records of
11 the dispensary and the safety department as it pertained to
12 the industrial hygiene issues?

13 A Yes. I would like to clarify that. There wasn't
14 much in the record really that I found.

15 Q You did look at whatever records were available?

16 A Yes.

17 Q Were dust samples being taken during that
18 period of time, Mr. Manning?

19 A No.

20 Q What kinds of things were being done by those two
21 departments?

22 A The safety department probably limited themselves
23 to putting material in the safety manual that pertained to an
24 industrial hygiene. I think that was the length and extent
25 of what they did.

26 The industrial lab, I know, were answering
27 questions that came to them on the toxicity of various
28 materials and I think that was the extent of it.

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1 Q Anything else that was being done, to your
2 knowledge, during that period of time?

3 A Nothing.

4 Q I think where we left off before the break there
5 was a question pending and it had to do with what you were
6 faced with as you started at the Long Beach Naval Shipyard.
7 That is, what equipment, what did you find when you reported
8 to work the first day?

9 A I found a desk with an empty filing cabinet.
10 No references, no equipment.

11 Q Did you have a secretary?

12 A No secretary.

13 Q Did you have any equipment to take dust samples
14 or to monitor the working spaces?

15 A No.

16 Q Other than the desk and the empty file cabinet
17 was there anything else available for you at that time?

18 A Yes.

19 Q What was that?

20 A I found some reference books that I think the
21 safety department had custody of them and I got ahold of these
22 reference books.

23 There was some material that was stored in the
24 industrial lab that I got ahold of and it turned out to be
25 mostly junk and broken equipment and material, equipment that
26 couldn't be used. I sent most of it back.

27 Q Is that the extent of what you found in order to
28 commence your job?

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1 A Yes.

2 Q Mr. Manning, would you tell us what you did
3 from your first day on in general terms with regards to your
4 industrial hygienist position; in other words, what task did you
5 undertake, what did you do?

6 A Well, the first thing that I did was I made a
7 request for early on -- the most necessary equipment among
8 others. Equipment to take dust samples. Some very simple
9 equipment to take samples of the air in the field.

10 I got quite a few books together, reference
11 material. I had fairly good luck with the person in
12 charge of the library and I early on got some fairly good
13 reference material and we started subscriptions to the two or
14 three professional periodicals that dealt with this field.

15 I did a lot of inspection work to familiarize
16 myself with the shipyard and what they had there, what kind
17 of hazards we were up against and what the working conditions
18 were.

19 I familiarized myself with the regulations and
20 the Navy's way of doing things. I had a week's indoctrination
21 early on at the Puget Sound Naval Shipyard and I had gathered
22 quite a bit of material from there. I reviewed that. That
23 about covers what I was doing.

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1 Q The equipment that you requested, how long did it
2 take for you to obtain that equipment, if you got it?

3 A I was able to count dust in June of 1978. It was
4 well over a year before I was able to gather all the material.

5 Q Did you mean 1968, sir?

6 A I'm sorry. 1968.

7 Q So it took over a year to get the equipment from
8 which you could take dust samples and monitor the dust
9 exposure of the workers?

10 A Yes.

11 Q With regards to the subscription of professional
12 periodicals, are you talking about periodicals that pertain to
13 industrial hygiene?

14 A Yes.

15 Q Were any such subscriptions available before you
16 started? In other words, was the Navy subscribing before you
17 started?

18 A No.

19 Q With regards to your training at Puget Sound, what
20 is Puget Sound, first of all?

21 A It's a Naval Shipyard.

22 Q Where is it located?

23 A In Bremerton, Washington.

24 Q What did the indoctrination that you went through
25 consist of? What did you learn?

26 A I spent a week in the shipyard there and
27 familiarized myself with their procedures, their working
28 setup, which was probably one of the best in the Navy at the

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1 time.

2 They had a fairly large staff. They had a
3 laboratory, good reference material. I got to know what a
4 good effective industrial hygiene program was like there.

5 Q Can you describe for us the size of the Industrial
6 Hygiene Department at Puget Sound at the time you went there.

7 A Yes. The staff consisted of the head industrial
8 hygienist. He also had two industrial hygienists, other
9 industrial hygienists and a chemist, two secretaries, two
10 health physicists and two radiation health technicians. I
11 think that was the size of it.

12 Q At Long Beach Naval Shipyard the department the
13 Industrial Hygiene Department consisted solely of you?

14 A Yes.

15 Q Can you describe what the working conditions were
16 like at Puget Sound when you observed them?

17 A In the Industrial Hygiene field they had a good,
18 solid program that was effective. They were taking samples of
19 the industrial environment, they were writing reports and they
20 were getting, I think, probably effective control of the
21 industrial health hazards.

22 Q Did that include asbestos dust exposure?

23 A Yes.

24 Q Sir, can you contrast or compare what was
25 happening at Puget Sound with what you observed at the Long
26 Beach Naval Shipyard when you started in 1967?

27 A When I started in 1967 there was just no ongoing
28 industrial health program that amounted to anything in Long

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1 Beach.

2 Whereas in Puget Sound they had a well staffed,
3 well equipped ongoing program that was effective as any such
4 program can be.

5 Q Sir, did you at a subsequent time, I believe in
6 1970, write a report summarizing what your experience had been
7 at the Long Beach Naval Shipyard in that context?

8 A Yes.

9 MR. CAMPILLO: Your Honor, at this time I would like to
10 have marked for identification a memorandum which will be
11 identified further after I give a copy to the witness. It
12 will be exhibit No. 1220. I have already given a copy to
13 counsel.

14 Q BY MR. CAMPILLO: Mr. Manning, do you see the
15 exhibit in front of you?

16 A Yes.

17 Q It's a memorandum dated June 30, 1970 to Commander
18 Jose C. Smith from Sheldon H. Manning, is that correct?

19 A Yes.

20 Q And you are the Sheldon H. Manning that it is
21 from?

22 A Yes.

23 Q If you take a minute to look through the various
24 pages, I believe it's 11 pages, is that your creation?

25 A Yes.

26 Q What was the purpose behind your preparation of
27 this memorandum?

28 A Well, when this was written I had been industrial

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1 hygienist in the shipyard for in excess of three years.
2 During the tour of duty of the prior medical director I had
3 considerable resistance, I thought, in developing an
4 industrial hygiene program.

5 Q Let me stop you for just a minute.

6 You said you experienced resistance in developing
7 the program?

8 A Yes.

9 Q Who would this resistance come from?

10 A George Watkins, the doctor.

11 Q What type of resistance did you experience?

12 A He didn't allow any written reports. He told me
13 one time that he regarded industrial hygienists as pack rats
14 who tried to gather a bunch of equipment together that didn't
15 amount to anything. Apparently he didn't have much faith in
16 taking samples.

17 Although I was eligible for promotion, his
18 attitude was that that promotion should wait until after he
19 left. I felt that he was not backing any kind of aggressive
20 industrial hygiene program. And I think his actions will bear
21 that out.

22 He left after two years. At the time that I first
23 came there he was scheduled to retire after one year. But
24 they held him over for an extra year.

25 When Dr. Jose Smith came aboard, why, I
26 immediately started writing reports without permission or
27 anything else. He never put a stipulation on me to not do it.

28 So the first report that I wrote was an asbestos

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1 report. What was happening was that the same administrative
2 officer who served under Captain Watkins, who had derived his
3 attitude toward industrial hygiene from that prior regime sort
4 of carried on the same kind of tactics. No budget, no money.
5 And I was having difficulty getting Dr. Smith's attention.

6 Q This letter was a way to get that attention?

7 A That's right. I would go into his office and
8 bring some of these things to his attention. His attention
9 span seemed to be about three minutes and he started shuffling
10 papers.

11 So I felt I was getting nowhere in a situation
12 that required some kind of improvement fairly fast because I
13 was aware that there were a lot of things in that shipyard
14 that weren't right that needed a lot of attention. And I had
15 a job description that went on and on and charged me with
16 great responsibilities without the adequate means to carry
17 them out.

18 This resistance, and it was a situation where I
19 felt that I was going to put this thing in writing and spell
20 it out by chapter and verse and either something was going to
21 be done or I probably would have been gone because I was at
22 the time having interviews.

23 Q Mr. Manning, is it correct that as of June 30,
24 1970 when you prepared this memorandum that your program as
25 industrial hygienist had really not had much success because
26 of the reasons you articulated?

27 A The program had not had the kind of success that
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1 I -- it was not as effective as I would have wanted it to be,
2 to answer your question.
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5 Q You indicated that there were certain conditions that
1 needed attention that were not being attended to. Could you
2 give us some examples of what you are referring to?

3 A Well, at this time I had the minimal equipment.
4 There were many things that were not being touched. There were
5 radiation problems in the shipyard. There were hearing
6 conservation problems and I had just very minimal equipment
7 to monitor this.

8 There was an increasing amount of paperwork to
9 be done and I had no secretarial help so that meant that I had
10 to hunt and peck and answer the correspondence and type the
11 reports.

12 There were ventilation problems in the shipyard
13 that were not being adequately taken care of.

14 The program of labeling toxic materials was in the
15 hands of the supply people and a lot of times they weren't
16 doing an adequate job here.

17 I had no input in the initial design of
18 ventilation equipment. Often this kind of thing didn't even
19 get into the hands of an engineer. It would be some
20 foreman who would design his own ventilation equipment and
21 generally it turned out to be something that Rube Goldberg
22 probably would design.

23 These are just some of the problems that came up.
24 The problem generally was lack of manpower to cover what had
25 to be done really.

26 Q As a one-man office you were unable to create the
27 changes you felt were necessary; is that true?
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1 A Yes.

2 Q Did you at any time after '67 have an increase
3 in staff?

4 A Yes.

5 Q When did that take place?

6 A I was given a technician. To the best of
7 my memory I think he came to me in the fall of 1972 or '62.

8 Q No, '72.

9 A '72, right.

10 Q Was that the extent of the additional staff that
11 you received while you were at Long Beach Naval Shipyard?

12 A No.

13 Q What else did you receive?

14 A In June of '73 I was given a secretary.

15 Q You left Long Beach Naval Shipyard when?

16 A In February of '74.

17 Q At the time that you left, Mr. Manning, had hiring
18 interviews and procedures commenced to find a replacement for
19 you?

20 A No.

21 Q As of the moment that you left the Long Beach
22 Naval Shipyard in '74, was there a replacement ready to take
23 over?

24 A No.

25 Q Mr. Manning, while you were carrying out the
26 functions of the industrial hygienist did you have any
27 instructions from your supervisor or superiors specifically
28 pertaining to asbestos dust control?

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1 A Yes.

2 Q What kinds of things were you asked to do or
3 not do?

4 A From time to time there were instructions.
5 I think they were authored, some of them, by a naval ships
6 system command which put out an instruction on the control of
7 asbestos.

8 When I first came aboard the shipyard there
9 were some simpler instructions on toxic materials. I was
10 instructed to take samples in the working atmosphere and
11 determine the level of exposure of the workers and I was instruc-
12 ted to help, I think, or at least monitor the results of
13 physical and medical examinations of these people.

14 I was responsible for making recommendations for
15 control of the hazard.

16 Q These instructions that you referred to, sir,
17 concerning the control of materials, were they being followed
18 consistently and regularly at the shipyard when you arrived?

19 A No.

20 Q When, if at all, did they --

21 MR. NOTT: Excuse me. Has the witness completed his
22 answer, your Honor?

23 THE COURT: I am assuming so without hearing more.

24 THE WITNESS: I said no.

25 Q BY MR. CAMPILLO: Mr. Manning, at any subsequent
26 time did the various instructions that came from command about
27 how to deal with these products get implemented in a regular
28 and consistent fashion while you were still there?

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1 A My answer to that would be they were implemented
2 in part, not in totality, I would say.

3 Q How much of your time, Mr. Manning, was devoted
4 to dealing with asbestos dust as a possible health hazard
5 while you were at the shipyard?

6 A The answer is about 15 percent.

7 Q The remaining 85 percent or so, what kinds of
8 things did you do?

9 A Things like monitoring the breathing air in the
10 shipyard, taking care of the hearing conservation program
11 which at one period of time meant indoctrination sessions twice
12 a day for months and months.

13 I took samples in the air of many contaminants.
14 I would get complaints periodically and I had to check these
15 things out no matter what they were.

16 I was heavily involved in -- there was a thing
17 called hazard pay. I forget the exact name of it but this
18 thing came into effect and I was consulted frequently on this
19 and constantly there were people who thought they should be
20 getting this kind of pay and they would make complaints and
21 I would have to go check it out.

22 There were mercury problems, silica problems.
23 Solvent vapor problems from painting and there were ventilation
24 problems. These things go on and on. I felt when there
25 were complaints or things were brought to my attention I had to
26 take care of them.

27 Q Sir, were you involved in any tasks that you
28 felt were really not tasks for the industrial hygienist to
29 be doing?

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1 A Yes.

2 Q Would you tell us what those were and how much
3 time they consumed?

4 A Well, initially during the period that
5 Dr. George Watkins was my superior there were tasks put on
6 me that I felt were not, were just make work sort of
7 things that somebody with a lot less skill could be doing,
8 like fitting ear plugs, and there was a screening procedure
9 called, screening procedure to screen out people who had been
10 supposedly exposed to lead called urine porphyrin tests
11 which required collecting urine samples.

12 A quite large population in the shipyard and
13 running these tests and these would run periodically and
14 almost completely useless because actually there was -- lead
15 had been abolished in the shipyard for years and years and
16 except in specific cases where we knew people were exposed
17 to lead, these things were useless.

18 I was made responsible for the quarterly report
19 for the whole dispensary. I was only involved in a small
20 portion of this report and they put this job on me. It was
21 completely out of my field.

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1 Q Now, these tasks that you are describing, sir, the
2 fitting of ear plugs, the urine screening tests and working on
3 this quarterly report, did that take a substantial amount of
4 time away from your hygienist's functions?

5 A Yes.

6 Q How much time did it take away from it?

7 A The quarterly report I'd spend about five, six,
8 seven days a quarter on that. The fitting of ear plugs was a
9 thing that was distracting because people would just walk in
10 and out of the office continually in order to have these
11 things fitted. The porphyrin would take three or four days
12 out of a month. Something like that.

13 Q Mr. Manning, you made certain recommendations in
14 your June 30, 1970 memorandum or requested certain things to
15 be implemented. Could you tell us what those things were that
16 you wanted to have accomplished as of June 30, 1970?

17 A Yes. First of all I requested that a long overdue
18 promotion that I thought I had coming be resolved. The job
19 really called for -- was known as Government Service 12. At
20 the time I took the job I was listed as a GS 11 in the Federal
21 Registry.

22 During that period I had been made eligible for
23 GS 12. But the papers were processed in the 11 category. I
24 brought that to the people in Personnel's attention. They
25 said, well, come aboard as an 11 and soon after you will get
26 your 12. This was three years after and I was still waiting
27 for my 12.

28 It wasn't so much a matter of money but it was

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1 just a matter of status. The answer I got why I wasn't
2 getting the promotion was that, you don't have enough staff to
3 rate this. To get enough staff, you know, it was impossible.
4 It was a Catch 69 situation. Status is an important thing.
5 And it was felt that I would have a little more clout.

6 Strangely enough I was sharing a telephone with
7 the X-ray Department. In fact he had the telephone and would
8 call me to the phone. I didn't have a phone in my own office.

9 I asked for permission to allow people past the
10 gate. I wanted to have a budget and I asked for more staff.

11 Q What type of staff, specifically?

12 A I would have liked to have a qualified industrial
13 hygiene assistant.

14 Q A secretary?

15 A And a secretary.

16 Q Any additional staff that you requested? A
17 pharmacist or anything else?

18 A First things first. First an assistant before you
19 ask for a second one. I never did get a qualified industrial
20 hygiene assistant. I got a technician with a high school
21 background.

22 Q What other things did you request in your report?

23 A Well, I requested to be relieved of these
24 extraneous duties that I had imposed on me.

25 Q The ones you described earlier, the ear plug
26 fitting and so forth?

27 A That's correct.

28 Q Any other recommendations, sir?

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1 A I see here I asked to be sent to the Industrial
2 Hygiene Conference annually.

3 Q What is the importance of that as a hygienist?

4 A Number one, at the same time that conference was
5 held there was a meeting of the Navy Industrial Hygiene
6 Association where all the industrial hygienists in the Navy
7 got together for something like a day. They put on a little
8 program. We were able to discuss our mutual problems, make
9 contact.

10 The conferences are very valuable in making
11 contact with other people. They may have the same problems.
12 And you could get down to a one-to-one basis and get
13 information very fast.

14 They were also practical. The only place in this
15 field where employees and prospective employers can get
16 together. It is sort of a place where you can promote another
17 job.

18 Q Mr. Manning, this letter or memorandum of June 30,
19 1970, does it accurately represent the conditions and events
20 that were taking place at the time you were at the Long Beach
21 Naval Shipyard?

22 A Yes.

23 Q Did you prepare that yourself?

24 A Yes.

25 Q Did you prepare that in your official capacity as
26 the industrial hygienist at the Long Beach Naval Shipyard?

27 A Yes.

28 MR. CAMPILLO: May we approach the bench.

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1 THE COURT: We'll take a recess at this time and
2 reconvene at 11:15. We'll take up the matter before we
3 resume.
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5 (Recess.)
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7 1 THE COURT: All right, sir.

2 MR. CAMPILLO: Your Honor, at this time the defendant
3 wishes to introduce into evidence exhibit 1220 with the
4 understanding that the first paragraph may not be pertinent
5 and will be deleted from the exhibit.

6 THE COURT: Any objection?

7 MR. NOTT: No objection, your Honor.

8 THE COURT: All right. 1220 then will be received.

9 Q BY MR. CAMPILLO: Mr. Manning, do you know or have
10 you met a person named Bill or William Reitze?

11 A Yes.

12 Q Where did you meet Mr. Reitze?

13 A I met Bill Reitze, I think, for the first time at
14 one of the industrial hygiene conferences.

15 Q Did you meet him at any other time?

16 A I met him later when he visited the shipyard with
17 a tour group that was associated with Dr. Selikoff and
18 Mt. Sinai Medical Center in New York.

19 Q Was that in connection with an asbestos-related
20 study?

21 A Yes. Dr. Selikoff had an ongoing study of
22 asbestos workers and what happened to them. It became quite
23 extensive.

24 Q When you met Mr. Reitze at this shipyard can you
25 tell us approximately when that occurred?

26 A Yes, I will try.

27 Q It was while you were an industrial hygienist
28 there, right?

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1 A Oh, yes. I think it was sometime, to the best
2 of my knowledge, in the fall of '71, I believe. It could
3 have been '70. Somewhere in that period. Representatives
4 from Selikoff's group came through twice and Reitze was
5 a part of the second group which was either '70 or '71.

6 Q Do you know if he was part of the first group?

7 A He wasn't with the first group. They came through
8 in the spring of '69 and I only met them briefly in that
9 period.

10 On the second time I went along with the tour,
11 was part of the tour group.

12 Q Mr. Manning, at the time that you left the ship-
13 yard in 1974 were asbestos-containing insulation products
14 still being used?

15 A Yes.

16 Q While you were the hygienist there between '67 and
17 '74 did you hold any type of training seminars or sessions
18 on asbestos as a health hazard?

19 A Yes.

20 Q Could you tell us briefly what types of
21 sessions you held and who participated?

22 A Well, we had the first indoctrination session,
23 I think, in February of '68 and I participated along with,
24 I think, the entire supervision of the pipe coverers.
25 The safety officer was there. Frank Meese was there.
26 Web Ay was there. Several other supervisors. I can't
27 remember. And they all talked, at least in the first
28 session.

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1 It kind of dwindled down where maybe there would
2 be myself and somebody else at the end. They would bring
3 them in in groups and I think the first time we had maybe
4 four sessions.

5 Q If I may, Mr. Manning, you were addressing the
6 foremen for these various groups of workers?

7 A The first session was to the working men who
8 installed pipe covering and insulation and at that time
9 Dr. Selikoff's initial findings were available and I
10 presented what he found and I didn't hold anything back.

11 I informed them of the cancer, increased incidence
12 of cancer that was being found among pipe coverers that
13 were exposed to asbestos and I explained to them that non-
14 smoking asbestos workers had a considerably less incidence of
15 cancer. It would be very wise to stop smoking if you worked
16 with asbestos.

17 I told them about what parts of their work were
18 the most hazardous as far as I knew. I recommended, of course,
19 to wear their respirators whenever they could and as long as
20 they could. Good housekeeping, et cetera.

21 Q Did you have other meetings along the same
22 lines, Mr. Manning?

23 A Yes.

24 Q Will you tell us how many of those meetings
25 did you have?

26 A There were four more meetings.

27 Q What years?

28 A The next one was held in '71, summer of 1971.

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1 Q Who did you address at that meeting?

2 A We had a series of meetings, morning and afternoon,
3 and we went for a period, I think about four days and I,
4 along with the safety director and I think Web Ay, went over
5 the material and we indoctrinated the first line supervisors
6 of all the shops.

7 At that time we felt or suspected that there were a
8 lot of people being exposed to this material that were not
9 working directly with it and this way we hoped to get the
10 information down to the worker.

11 Q Mr. Manning, did you have any resistance from
12 management in terms of holding education meetings like
13 these?

14 A Yes.

15 Q Would you describe what resistance you faced?

16 A There was difficulty at times getting these kinds
17 of things organized, especially initially because this kind of
18 thing pulled the worker away from his work and the production
19 people took a dim view of that and consequently initially,
20 why, there was resistance.

21 As I say, there was a long gap between 1968 and
22 the next time we addressed the workers was in '72.

23 Q Mr. Manning, you also mentioned briefly before
24 that there was some type of medical screening going on while
25 you were there; is that correct?

26 A Yes.

27 Q Could you tell us what was being done?

28 A For the asbestos workers?

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1 Q Yes, sir.

2 A The people that were directly exposed to
3 asbestos were brought in once a year and given a 14 x 17 X-ray
4 and when I first came there there was an ongoing program
5 that was carried out at the Memorial Hospital by
6 Dr. Ellestad where there were extensive pulmonary function
7 studies done on all the pipe coverers yearly.

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1 Q What was done with these studies?

2 A The information was put in the employees' jacket
3 and the X-ray films were stored away.

4 Q Any communications to the employees as to the
5 findings?

6 A No.

7 MR. CAMPILLO: I have no further questions, Your Honor.

8 THE COURT: Cross-examine.

9

10 CROSS-EXAMINATION

11 BY MR. NOTT:

12 Q Good morning, Mr. Manning.

13 A Good morning.

14 Q This X-ray program that Mr. Campillo just
15 mentioned, when was that, sir?

16 A The employees were given an X-ray yearly, once a
17 year, while I was there.

18 Q During 1967 to 1974?

19 A Yes. I was the industrial hygienist from 1967 to
20 February of 1974.

21 Q The X-ray program was during that entire time?

22 A Yes.

23 Q How were you involved in that program? What was
24 your function relative to it?

25 A I became interested in what was happening to these
26 people. Initially on my own I had a rapport with the X-ray
27 technician and I reviewed all the reports of the X-ray reader
28 involving these people.

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1 Later I was requested by a Dr. Lawton who is head
2 of the Occupational Health Branch to review these things and
3 give him a report. He wanted that report to deliver a paper I
4 think in Spain or somewhere where he was going.

5 So for several years while Terry Moore, that
6 particular radiologist, was there, I reviewed the findings of
7 these X-rays to keep tabs on what was happening to these
8 people.

9 Q Were the X-ray reports delivered back physically
10 to the Long Beach Naval Shipyard?

11 A They were delivered physically to the X-ray
12 Department.

13 Q At the Long Beach Naval Shipyard?

14 A Yes.

15 Q Did you have any connection with that X-ray
16 Department at the Long Beach Naval Shipyard? In other words,
17 from a reporting standpoint did they report to you, did you
18 report to them?

19 A There was no official requirement one way of the
20 other.

21 Q Did the pulmonary function test come back? If
22 they were delivered physically to whom did they come back?

23 A They would have been addressed to the medical
24 officer. I don't know whether he reviewed them or not. They
25 ended up in the medical jackets, medical records of the
26 specific employee.

27 Q How do you know that, sir?

28 A Because I pulled the jackets of these people and

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1 examined the jackets and reviewed the findings also of the
2 pulmonary function tests.

3 Q How is it that you are aware of that if the
4 results weren't given to the employees?

5 A Number one, it was common knowledge. Terry Moore
6 told me that.

7 Number two, I was made well aware of it in one
8 incident where Terry Moore, on his own without official notice
9 or permission, he called two employees who had serious
10 findings on their X-ray, according to the reader, and these
11 two people were referred to a Dr. Owenby. I was there and
12 heard this.

13 He said, who brought these people in. He didn't
14 want to handle it and he sent them up to see the medical
15 officer.

16 The medical officer came out of his office and
17 examined both men with his stethoscope and told them they were
18 all right to go back to their jobs.

19 Later he came back down the hall and wanted to
20 know who called these people in. Probably if you found Terry
21 Moore you can find out.

22 That was policy and I knew it was happening
23 because Wereby, who is the head of the pipe coverers and
24 insulators complained frequently that nobody was notified
25 about anything.

26 Q Did the X-ray results that you read come back
27 positive for findings for asbestos-related disease in the pipe
28 coverers?

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1 A Yes, there were some findings.

2 Q Were all of them?

3 A No.

4 Q Do you have any idea on percentage how many were
5 positive?

6 A Well, I'm not a doctor. But despite that I did
7 some reading in medical journals. As a quasi-layman I would
8 say that from reading these reports -- I'm not qualified to
9 read an X-ray film, but from reading the reports written by
10 the reading radiologist, I would say that at least a third of
11 these people had findings of a nature that wouldn't be there
12 in a normal X-ray.

13 Q And this X-ray program, Mr. Manning, that you
14 talked about, was just for the pipe coverers?

15 A Yes. The pipe coverers and insulators. I think
16 later there were some boilermakers brought in who were at
17 times exposed to asbestos. It was expanded to them.

18 Q We have heard that another slang term for pipe
19 coverer and insulator is a lagger. Does that square with your
20 understanding?

21 A Yes.

22 Q Mr. Manning, you stated when you arrived in 1967
23 as the post of, I believe it's called a billet, is that
24 correct?

25 A Yes.

26 Q Billet of industrial hygienist had been abolished?

27 A Yes.

28 Q Would it be more accurate to say that it just

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1 hadn't been filled or was the billet actually totally
2 abolished?

3 A I think it's accurate to say it was abolished.

4 Q I believe you stated that you spent about 15 years
5 of your time overall with health hazards related to asbestos
6 materials, is that correct?

7 A Yes.

8 Q And the other 85 percent you described a variety
9 of different duties that you had during that time?

10 A Yes.

11 Q Was the noise-level problem at the Long Beach
12 Naval Shipyard a major problem in your estimation during that
13 time period?

14 A Yes.

15 Q How much time did you spend on that?

16 A 20 percent.

17 Q What was the nature of that problem?

18 A Well, the overhaul of Naval ships encompasses
19 quite a bit of contact of metal against metal, riveting,
20 chipping, pounding scouring, et cetera. And aboard ship
21 during overhaul is an extremely noisy place.

22 This has been going on for a number of years. The
23 Department of Labor who handles compensation decided that this
24 was a compensable injury, hearing loss due to noise.

25 What happened when this became known -- there were
26 a lot of noise-induced hearing loss claims. And there was a
27 lot of time spent taking noise measurements principally to
28 develop these hearing loss claims. A lot of

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1 connected with hearing loss claims.

2 At one time, I think in the year 1972, I spent
3 months and months giving indoctrination or lectures to people,
4 the whole shipyard establishment, 50 at a time, morning and
5 afternoon. This went on for months. So it was time
6 consuming.

7 Q Was there some resolution of the problem for the
8 worker to eliminate the hearing loss problems that were going
9 on?

10 A Under the conditions that prevailed in the
11 shipyard, and given the fact that there was no effective
12 rubber chipping hammer or anything like that, the noise went
13 on.

14 We had a program whereby we examined everybody in
15 the shipyard to determine whether they had hearing loss. We
16 had an ear protective device program whereby we issued
17 ear plugs of various descriptions. In some instances ear-
18 muffs. And of course the indoctrination program to wear your
19 ear plugs. I think people were informed if they had hearing
20 loss.

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28 JM - 83

9 1 Q Mr. Manning, you mentioned, sir, that I believe
2 you are a member of the American Congress of Governmental
3 Industrial Hygienists, sir, during the time?

4 A Yes.

5 Q Is that an official government group, sir?

6 A No. That is a professional society.

7 Q During the time that you were a member, sir,
8 did that group have any power to make any laws or regulations?

9 A No.

10 Q It made recommendations only; is that correct,
11 sir?

12 A Yes.

13 Q Did it make any laws as such relative to lowering
14 the TLV for asbestos?

15 A You mean recommendations?

16 Q Did it make any laws?

17 A I am confused. We discussed that they had no
18 power to make laws.

19 Q All right. Let me go at it another way, sir.
20 We have already discussed that the TLV at one time in the 1960's
21 at least was five million particles per cubic foot; is that
22 correct, sir?

23 A Yes.

24 Q There was no law in effect that that was a TLV;
25 is that correct, sir? No government body had ever said that
26 this is the law, five million particles TLV, in the 1960's?

27 MR. CAMPILLO: I am going to object as to the time
28 frame. I think it is a confusing question.

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1 THE COURT: All right. Put a time frame on it.

2 Q BY MR. NOTT: In 1967, sir.

3 A Had it become law in '67?

4 Q Correct.

5 A Yes.

6 Q Who made the law, sir?

7 A Well, I had knowledge that the Pennsylvania
8 Department of Health had adopted the TLV's in their entirety
9 in their regulations, which is part of the law, the regulations
10 of the Department of Health.

11 Q To your knowledge, sir, was there such a similar
12 law in California in 1967?

13 A I have no knowledge of that.

14 Q Was there a federal law, to your knowledge, at
15 that time in 1967?

16 A No.

17 Q Mr. Manning, does the TLV of five million particles,
18 to your knowledge, sir, was that five million asbestos
19 fibers or was the TLV just five million dust particles?

20 A It was five million dust particles.

21 Q Which would mean zero asbestos fibers or five
22 million asbestos fibers; is that correct, sir?

23 A Theoretically so; yes.

24 Q At some point in time there was a governmental
25 TLV set for asbestos, was there not, sir? Nationwide?

26 A Yes.

27 Q Do you recall when that happened, sir?

28 A It happened when OSHA went into effect, which I

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1 think was some time, I believe, in 1970, thereabouts.

2 Q What is OSHA, to your understanding?

3 A It stands for Occupational Safety And Health
4 Administration, I believe, or Authority. I forget which.

5 Q In approximately 1970 what was the TLV set
6 for regarding asbestos fibers, sir?

7 A Initially it was the five million particles per
8 cubic foot.

9 Q Then it was reduced?

10 A The next change I believe occurred when they
11 changed the standard or the limit to TLV from five million
12 particles per cubic foot to 12 fibers per CC of air longer
13 than five -- fibers longer than five microns.

14 Q Do you recall the approximate date of that, sir?

15 A That probably went in late '70 or '71.

16 Q To your knowledge was that standard further
17 modified after that point in time?

18 A Yes.

19 Q To what, sir?

20 A Initially it went down to five fibers per cubic
21 centimeter longer than five microns.

22 Q Do you know when that took place?

23 A I think the next year.

24 Q Approximately 1972?

25 A I believe it was in by '71.

26 Q Was the standard further reduced after that?

27 A Yes.

28 Q Down to what, sir?

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1 A Officially it went down to two fibers per cubic
2 centimeter.

3 Q Do you recall when that happened?

4 A I believe that officially became the standard after
5 I left the shipyard actually. That was probably in '75.

6 Q Mr. Manning, you stated that when you arrived at the
7 shipyard you had very little in the way of equipment; is that
8 correct, sir?

9 A Yes.

10 Q One of the things that you put in immediate
11 and evidently repeated requests for wasdust sampling equipment;
12 is that true, sir?

13 A Yes.

14 Q Did you need the dust sampling equipment to
15 take samples of dust other than for asbestos?

16 A Yes.

17 Q What other types of materials were you looking to
18 count besides just asbestos?

19 A There was a large amount of sand blasting that
20 went on in the shipyard and it created quite a bit of dust
21 and it needed to be monitored.

22 Just off the top of my head, I don't believe --
23 I think asbestos and silica dust which occurred in sand-
24 blasting, were the only two dusts that I can recall.

25 Q You did eventually receive the equipment in
26 approximately 1968 sometime, sir?

27 A It was June of '68, yes.

28 Q After that did you take dust samples around the

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1 shipyard?

2 A Yes.

3 Q Did you do that on a fairly regular basis, sir?

4 A I would describe it as sporadic basis. Whenever
5 I could find time. Initially, as soon as I got the
6 equipment I spent more time to get to define the problem and
7 I think by the time that nine months rolled around I had done
8 sufficient sampling to write a report, which I did.

9 Q Was it part of your function, sir, to take
10 these samples on any sort of a regular basis? In other words,
11 once a month, one every six months, once a year?

12 A No.

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1 Q I believe you stated that you did take your first
2 set of samples over about a nine-month period and make a
3 report on that.

4 A Yes.

5 Q Did you ever do any sampling subsequent to that?

6 A Yes.

7 Q When was that?

8 A Whenever the five-fiber per cc standard came into
9 effect. It required different equipment and needed a phase
10 contrast microscope. As soon as I obtained that equipment
11 I -- about the same routine that I did before. I took quite a
12 few samples as time permitted to fill out the knowledge or the
13 exposures that were occurring in the various kinds of work.

14 Frequently I was -- Web Ay, who was the foreman,
15 would request some sampling. And I would respond to those
16 requests. When information came to me that a particularly bad
17 situation existed I tried to get out and monitor that. It was
18 never done -- you know -- every month. Things couldn't be
19 planned that way.

20 The way the work schedule is the ships come in.
21 Initially they take off all the insulation which occurs over a
22 day or two. Then there is quite a bit of repair work and the
23 work situation appears where they start putting it back on.
24 It's an irregular sort of thing.

25 Q Were you ever on board ship watching the ladders
26 install insulation?

27 A Yes.

28 Q Did you observe other workers in other trades to

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1 be in the work space at the time that the ladders were
2 installing insulation?

3 A Yes.

4 Q What other types of trades did you observe to be
5 in the work space?

6 A Machinists would be there, pipe fitters,
7 electricians, welders, riggers. Any workman that had work in
8 these spaces would come and go.

9 In the case of machinists, I observed them sitting
10 nearby while the lagging work was going on. They were pulling
11 something off so they could get in there and do the work.
12 This is something that later on we tried to restrict.

13 Q Were you ever onboard ship when the insulators did
14 rip-out?

15 A Yes.

16 Q You are familiar with that term, "rip-out"?

17 A Yes.

18 Q It's your understanding that that means taking off
19 the old insulation?

20 A Yes.

21 Q In your opinion, was that a dusty operation?

22 A That operation was the dustiest operation involved
23 in which the asbestos workers were involved.

24 Q Have you ever seen any other workers in the work
25 space during rip-out from 1967 to 1974?

26 A Yes.

27 Q Approximately how much of your time -- I know this
28 may be difficult -- approximately how much of your time was

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1 spent onboard ship during that period as opposed to other
2 parts of the shipyard?

3 A Initially I spent more time in the field because I
4 didn't have much else to do. As things progressed the paper
5 load became heavier.

6 I would say initially I might have spent a third
7 of my time aboard ship in the first year or two. Later on it
8 got down to maybe 20 percent or 15 percent. Something like
9 that.

10 Q You would make it a practice during a normal work
11 week to go on several ships during the day or for some periods
12 of time?

13 A Yes.

14 Q That period of time might range from what to what?
15 How long might you be on a ship?

16 A If I was doing sampling on the asbestos I'd be on
17 there probably three hours in the morning figureing on
18 counting the samples in the afternoon. Something of that
19 sort. There were times that maybe I'd spend five hours aboard
20 various ships. Not always the same one.

21 Q During the time you took your dust surveys in 1969
22 did you ever take any rip-out procedures?

23 A Yes.

24 Q Do you recall what the results of those tests
25 were?

26 A Invariably during rip-out the concentrations of
27 asbestos fibers were high.

28 Q Did they exceed the 5 million TLV at that time?

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1 A Yes.

2 THE COURT: We'll recess at this time and reconvene
3 Monday morning at 9:00 a.m., please.

4
5 (At 12:00 noon an adjournment was taken,
6 to be resumed Monday, January 11, 1982
7 at 9:00 a.m.)

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MT-PWHD-012864

LPO5R052 - MANVILLE LITIGATION SUPPORT SYSTEM

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OFFLINE PRINT REQUEST
USERID: RLEG061

COMMAND: P,3,TEXTB, SORT

DATABASE: GOVTRS

DATE: 02/27/86

TIME: 163431

SESSION HISTORY

SET 1 - 44 DOCUMENTS IN GOVTRS DOCNO=LJCO0004
SET 2 - 24 DOCUMENTS IN GOVTRS DOCNO=ESL00301
SET 3 - 12 DOCUMENTS IN GOVTRS DOCNO=SHMT0002

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COMMAND: P,3,TEXTB, SORT

DATABASE: GOVTRS DATE: 02/27/86

PAGE 1

TIME: 163431

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0000 STARTING PAGE: 0000 ENDING PAGE: 0000
 TOPIC: TABLE OF
 CONTENTS

IRVINE V JMC
 TRIAL TRANSCRIPT OF
 SHELDON H. MANNING
 LONG BEACH NAVAL SHIPYARD (LBNS)
 JANUARY 11, 1982
 LOS ANGELES, CALIFORNIA
 VOLUME 2

TOPIC	PARAGRAPH
(EXAMINATION BY NOTT,MG FOR IRVINE,DC.)	
- DUST SURVEYS, PP. 1550-1552	1
- SAFETY MEETINGS, PP. 1552-1554	2
- RESPIRATORS, PP. 1554-1556	3
- SAFETY MEETINGS, PP. 1556-1558	4
- VISIT TO PUGET SOUND (PSNS), PP. 1558-1559	5
- JMC PRODUCTS/WARNING LABELS, PP. 1559-1560	6
- VISIT BY MOUNT SINAI (MTS) GROUP, PP. 1560-1562	7
- LAWSUIT FILED BY MANNING,SH, PP. 1562-1564	8
(EXAMINATION BY CAMPILLO,RA FOR JMC.)	
- 1964 MEETING ON ASBESTOS HAZARDS, PP. 1564-1566	9
- MOUNT SINAI (MTS) GROUP VISITS, PP. 1566-1568	10
(EXAMINATION BY NOTT,MG FOR IRVINE,DC.)	
- TESTING OF DUST FLOW RESPIRATORS, PP. 1568-1570	11

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0001 STARTING PAGE: 1550 ENDING PAGE: 1552
 TOPIC: DUST SURVEYS

(EXAMINATION BY NOTT,MG FOR IRVINE,DC.) Manning,SH previously testified that on the dust sample measurements he took in 1968 and 1969 on rip-out procedures, there were instances where results exceeded five million threshold limit value. Does not recall specifically how high the samples got, but it would not have been uncommon to be ten times the threshold limit value of 1968, up to 50 million particles. Manning,SH has taken dust samples out of the space after the rip-out was completed and found dust still in the air. Manning,SH did the same type of dust count survey regarding the installation of insulation materials. During installation the levels generally were in the order of the threshold limit value up to two or three times that. After May of 1971, Manning,SH has taken dust surveys where the standard on the threshold limit value had been changed from particles to asbestos fibers. Has taken surveys on both ripout and installation of insulation. His findings were that during rip-out dust could be as high as ten times the threshold limit value which was five fibers per "cc." It wasn't always that high, but it wasn't uncommon. During installation the counts ranged from about threshold limit value to three times that much.

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0002 STARTING PAGE: 1552 ENDING PAGE: 1554
 TOPIC: SAFETY MEETINGS

Manning,SH previously testified that he had a safety meeting with the ladders, the pipe coverers, and insulator workers in 1969 regarding asbestos health hazards. People at the meeting included the foreman of the ladders and the supervising hierarchy. The trades other than ladders were not represented at this first meeting. The presentations at this meeting were all oral but there were some visual aids used also. The meeting was strictly on asbestos health hazards. One of the things discussed was that

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ladders should wear respirators. Manning,SH was also involved in eight or ten day-long meetings in June of 1971 where they indoctrinated all the fire line foreman in the shipyard in regard to the asbestos hazard. At the first meeting in 1971, just pipe coverers were involved; the second meeting involved all the first line supervisors in the shops. In the three meetings during 1972 and 1973 some workers who were boilermakers who were exposed to asbestos attended.

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0003 STARTING PAGE: 1554 ENDING PAGE: 1556
 TOPIC: RESPIRATORS

At the safety meetings, as well as at other times, Manning,SH got information that there was resistance among workers to wearing respirators all the time. Manning,SH heard complaints that "the respirator gags me," which he interprets to meant that workers couldn't breath freely through the respirators. The respirators caused irritation around the face, or fogged up spectacles. The main complaint was that the respirators caused resistance to breathing; older workers would get fatigued and take their respirators off. Another drawback of a respirator is that one cannot talk or communicate through them. Respirators are hot and cause sweating. Manning,SH wore a respirator when he was taking dust surveys with one exception. The respirator used became a disposable one in 1971 or 1972. In 1967 the respirator that was used was a mine safety appliance called a dust flow. In improving this model, in 1967 or 1968, the filter holder and filter were enlarged to make breathing a little easier. The disposable respirator, obtained in 1972 was made by "3-M." These had just come on the market and been approved by the United States Bureau of Mines (USBM). Workers were issued a fresh disposable respirator every morning; normally respirators were issued to pipe coverers and insulators only, but were available to anyone else that wanted one. The disposable respirator had better acceptance among workers. They were lighter, caused less breathing resistance, and didn't fog up glasses. There were still problems with communication.

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0004 STARTING PAGE: 1556 ENDING PAGE: 1558
 TOPIC: SAFETY MEETINGS

A foreman is the immediate supervisor of the workers. He assigns work, sees that the job is done and takes care of time. Inspectors are not foremen. In the safety meeting for foremen, the presentations were also oral. Manning,SH does not know if there was an attendance or sign up sheet at these meetings. If there was a sign up sheet it may have been kept by the shop supervisor. The supervisor/foreman was supposed to pass on the knowledge from the safety meetings to the workers directly under them. (PAGE 1557, LINES 23 THROUGH 28 MISSING FROM TRIAL TRANSCRIPT.)

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0005 STARTING PAGE: 1558 ENDING PAGE: 1559
 TOPIC: VISIT TO PUGET SOUND (PSNS)

After Manning,SH came to Long Beach (LBNS), he visited Puget Sound (PSNS) in Bremerton, Washington. Puget Sound (PSNS) conducted the same type of work as Long Beach (LBNS), but also constructed naval ships which was not done at Long Beach (LBNS). Manning,SH does not know if Puget Sound (PSNS) also was involved in developing nuclear warships. Manning,SH made the trip to Puget Sound (PSNS) in May of 1967. The work force there varied between 8,000 and 12,000 compared to Long Beach's (LBNS) 6,000 to 9,000. (OBJECTION (OBJ): NO FOUNDATION RE: RATIO OF WORKERS' COMPENSATION CLAIMS BETWEEN PUGET SOUND (PSNS) AND LONG BEACH (LBNS). P. 1558.) Manning,SH does not know how the numbers of Workers' Compensation claims compared between the two shipyards.

DOCUMENT NUMBER: SHMT0002 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0006 STARTING PAGE: 1559 ENDING PAGE: 1560
 TOPIC: JMC PRODUCTS/WARNING LABELS

When Manning,SH was at Long Beach (LBNS) he saw JMC insulation products being used including some with the brand name Thermobestos. Also recalls seeing the JMC product, 85 Percent

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Magnesia. Does not recall if any JMC asbestos cements were used at Long Beach (LBNS). (OBJECTION (OBJ): OUTSIDE THE SCOPE OF DIRECT EXAMINATION RE: WARNING LABELS ON JMC PRODUCTS. P. 1559.) Manning,SH believes that later in his tenure there was some kind of warning put on containers of Thermobestos and 85 Percent Magnesia. The NAVY also had its own warning labels which would sometimes be on these containers which said "toxic." (OBJECTION (OBJ): IMPROPER FORM OF IMPEACHMENT RE: DOES MANNING,SH RECALL TESTIFYING THAT THE FIRST TIME HE SAW ANY WARNING ON A JMC PRODUCT WAS IN 1971 OR 1972? P. 1560.) 1971 or 1972 was the first time Manning,SH saw warning labels on JMC products; that was after the OSHA Act came into effect.

DOCUMENT NUMBER: SHMTOO02 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0007 STARTING PAGE: 1560 ENDING PAGE: 1562
 TOPIC: VISIT BY MOUNT
 SINAI (MTS)
 GROUP

Manning,SH met with a group of people from the Mount Sinai (MTS) group in the spring of 1969. Nickerson and Holiday,D were in the group along with someone else whose name Manning,SH can't remember. Manning,SH met with this group, after they had toured the shipyard, in the Safety Director's office. Manning,SH had very little to do with the actual tour. Does not recall if the group made any recommendations regarding the use of asbestos type products. There was a second group from Mount Sinai (MTS) which toured Long Beach Naval Shipyard (LBNS) in the fall of 1971. Reitze,W was in this group. Manning,SH went on the tour with this group. The group observed some rip-out aboard one of the ships and some installation of asbestos. Manning,SH does not think anyone in the group made any recommendations regarding the use of asbestos products; they were basically at the shipyard to observe and learn. Manning,SH does not think he mentioned to the group the problem of workers not liking the respirators.

DOCUMENT NUMBER: SHMTOO02 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0008 STARTING PAGE: 1562 ENDING PAGE: 1564
 TOPIC: LAWSUIT FILED
 BY MANNING,SH

The rip-out procedure was by far the heaviest dust producer. Manning,SH took dust counts after 1972 occasionally upon request. Ay,W the general foreman was very knowledgeable and very active in trying to control the asbestos hazards and he frequently requested sampling. Manning,SH himself has a little chronic lung disease. (OBJECTION (OBJ): REQUEST TO APPROACH THE BENCH RE: HAS MANNING,SH FILED A LAWSUIT AGAINST MANUFACTURERS? P. 1563.) (THE FOLLOWING COLLOQUY WAS HELD AT THE BENCH OUTSIDE THE HEARING OF THE JURY: THE PENDING QUESTION IS WHETHER MANNING,SH HAS FILED A LAWSUIT AGAINST MANUFACTURERS OF ASBESTOS PRODUCTS INCLUDING JMC. THE RELEVANCE OF THE QUESTION IS THAT THE TENOR OF MANNING'S,SH TESTIMONY HAS SO FAR BEEN THAT IT IS THE NAVY'S FAULT AND NEGLIGENCE IN HANDLING THE DUST CONTROL PROBLEM AND NOTT,MG WISHES TO DEVELOP THE FACT THAT MANNING,SH HAS BROUGHT A STRICT LIABILITY ACTION AGAINST JMC. P. 1563.) (OBJECTION (OBJ): QUESTION IS PREJUDICIAL AND IRRELEVANT. P. 1563.) (OBJECTION (OBJ): SUSTAINED.)

DOCUMENT NUMBER: SHMTOO02 WITNESS: MANNING,SH LBNS
 PARA NUMBER: 0009 STARTING PAGE: 1564 ENDING PAGE: 1566
 TOPIC: 1964 MEETING
 ON ASBESTOS
 HAZARDS

(EXAMINATION BY CAMPILLO,RA FOR JMC.) The only time Manning,SH did not wear a respirator when taking dust samples was a time he went back to the shipyard at night and forgot his respirator at home. Manning,SH did not get any resistance from management about his wearing respirators when doing dust sampling. Recalls a meeting in 1964 about asbestos as a possible hazard. Manning,SH is not sure that the meeting was held by Selikoff,IJ; it may have been. A representative from the NAVY was present at this meeting by the name of Kreiger,C. Kreiger,C was safety superintendent at Long Beach (LBNS). There were respirators available to any worker at Long Beach (LBNS), but they were mandatory only for insulators. Workers in other trades wore respirators infrequently. When Manning,SH took dust samples, the concentration of particles 10 or 15 feet away from the site of installation or rip-out would be about one-third. At the safety meetings previously mentioned, marine machinists' supervisors were in attendance.

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DOCUMENT NUMBER: SHMT0002

WITNESS: MANNING,SH

LBNS

PARA NUMBER: 0010

STARTING PAGE: 1566

ENDING PAGE: 1568

TOPIC: MOUNT SINAI
(MTS) GROUP
VISITS

Neither of the visiting groups from Mount Sinai (MTS) made dust readings; the scope of their visit did not include taking samples.

Manning,SH assumes the NAVY would have objected to the groups making dust readings. At least these groups would have needed the NAVY's permission. The groups from Mount Sinai (MTS) visited Long Beach (LBNS) mainly because of the influence of Ay,W who was general foreman and union president at one time. The union was the Metal Trades Council. Ay,W was the tour guide for the groups from Mount Sinai (MTS). The Mount Sinai (MTS) group relied heavily on union cooperation to get dust samplings. (OBJECTION (OBJ): CALLING FOR HEARSAY RE: DID THE MOUNT SINAI (MTS) GROUP REQUEST PERMISSION TO TAKE DUST SAMPLES OR TO ADDRESS EMPLOYEES DIRECTLY? P. 1567.) Manning,SH does not know if these groups requested permission to take dust samples or address employees directly. It is true that when Manning,SH was at the Long Beach Naval Shipyard (LBNS) between 1967 and 1974, it was recognized by Manning,SH and by the NAVY that asbestos could be a health hazard.

Manning,SH believes the NAVY did not do everything in its power to assist him in doing his job as an industrial hygienist.

DOCUMENT NUMBER: SHMT0002

WITNESS: MANNING,SH

LBNS

PARA NUMBER: 0011

STARTING PAGE: 1568

ENDING PAGE: 1570

TOPIC: TESTING OF
DUST FLOW
RESPIRATORS

(EXAMINATION BY NOTT,MG FOR IRVINE,DC.) When Manning,SH began working at Long Beach (LBNS), in February of 1967, the Vietnam War was going on. Long Beach Naval Shipyard (LBNS) was a repair yard for Naval warships, some of which were on duty for the Vietnam war. Prior to the use of disposable respirators, the dust flow respirators were also available to workers other than insulators and pipe coverers. The procedure for obtaining a respirator was to get a voucher from the foreman and take the voucher to the safety issue store where they would issue a respirator. The dust flow respirators used prior to 1972 were approved by the United States Bureau of Mines (USBM). When the Bureau of Mines (USBM) tested dust flow respirators, the dust used was silica dust. Asbestos dust was never used to test the respirators.

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MT-PWHD-012869

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

DEPARTMENT NO. 49

HON. WILLIAM DRAKE, JUDGE

DOUGLAS C. IRVINE, JR.,

Plaintiff,

vs.

No. SOC 51906

JOHNS-MANVILLE CORPORATION,

Defendant.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

Monday, January 11, 1982

VOLUME 16

APPEARANCES:

For the Plaintiff:

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CONWAY & CANNON

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Pages 1550 - 1675

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WALTER RESCHMAN, CSR 1053
Official Reporters

Friday, January 8, 1982

A.M. 1550; P.M. 1618

DEFENDANT'S WITNESSES: DIRECT CROSS REDIRECT RECROSS

MANNING, Sheldon H. (res.) 1550 1564 1568

HINSHAW, H. Corwin 1571

(res.) 1618 1657

DEFENDANT'S EXHIBITS:

IDENTIFIED

RECEIVED

1071 - Article by Dreesen, "Asbestosis
in the American Textile Industry"

1631

1090 - Article by Merewether, "The
Occurrence of Pulmonary Fibrosis
and Other Pulmonary Afflictions"
May 1930

1621

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1 LOS ANGELES, CALIFORNIA, MONDAY, JANUARY 11, 1982, 9:10 A.M.

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3
4 THE COURT: Good morning everybody.

5 THE JURY: Good morning.

6 THE COURT: All right. Are we ready to continue?

7 MR. NOTT: Yes, your Honor.

8
9 SHELDON H. MANNING,

10 the witness on the stand at the time of the adjournment,

11 resumed the stand and testified further as follows:

12 THE COURT: All right, sir.

13 MR. NOTT: Thank you, your Honor.

14
15 CROSS-EXAMINATION (Resumed)

16 BY MR. NOTT:

17 Q Good morning, Mr. Manning.

18 A Good morning.

19 Q When we broke last time, Mr. Manning, we were
20 talking about rip-out and dust counts. I believe the last
21 question I asked you was whether or not on your dust sample
22 measurements that you took in 1968-1969 if the dust surveys that
23 you took on the rip-out procedures ever exceeded the
24 five million TLV. Do you recall that, sir?

25 A Yes.

26 Q I believe your answer was in the affirmative, that
27 they did?

28 A Yes.

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1 Q Do you recall how high those samples got, sir, on
2 rip-out?

3 A No, not specifically. They may have, some of them,
4 gotten as high as ten times the then threshold limit value.
5 It would not have been uncommon.

6 Q Up to around 50 million particles, sir?

7 A Yes.

8 Q Did you ever take any dust samples,
9 Mr. Manning, after the workers were out of the space after
10 the rip-out was done, for example?

11 A Yes.

12 Q Did you ever find any dust still in the air after
13 the rip-out work had been done?

14 A Yes.

15 Q Did you do the same type of survey, sir, as to the
16 insulation work, the installation of insulation materials?

17 A Yes.

18 Q Do you recall what your findings were in that
19 regard?

20 A During installation the levels generally were in
21 the order of about the TLV up to maybe two and three times
22 the TLV during the installation. The one that was working in
23 installing, in his breathing zone.

24 Q Did you ever take dust surveys after the standard
25 on the TLV had been changed from particles to fibers, to
26 asbestos fibers?

27 A Yes.

28 Q When did you do that, sir?

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1 A After May in 1971, I believe.

2 Q Did you take the same sort of surveys on ripout
3 and on installation of insulation materials?

4 A Yes.

5 Q Generally, sir, what were your findings at
6 that time?

7 A My findings were when rip-out occurred it was the
8 same order of magnitude.

9 At that time I think the original standard was
10 12 fibers and went down to five fibers per CC, and during rip-
11 out it would be as high as 10 times the then existing TLV.
12 Not always that, but it went that high, and during installation
13 I found the same situation. Your concentrations were
14 about TLV up to maybe three times.

15 Q On the installation it would be anywhere from the
16 TLV itself up to three times what the TLV was?

17 A Yes.

18 Q Mr. Manning, you testified, I believe, that you
19 had an indoctrination or a meeting of some sort, a safety
20 meeting with the pipe coverers and ladders some time in 1969
21 regarding asbestos health hazards; is that correct?

22 A Yes.

23 Q Was that with the foremen or supervisors of the
24 ladders at that time?

25 A That was with the ladders, the pipe coverers and
26 insulator workers. I would believe that the foremen of the
27 ladders would be included in that group and at least for
28 the first one or two sessions the supervising hierarchy was

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1 there also and participated.

2 Q Any other trades at that first meeting, sir, or
3 just the ladders?

4 A Initially it was just the ladders.

5 Q Was the presentation at that meeting regarding the
6 asbestos health hazards oral, sir, or were there written
7 materials passed out or what?

8 A The presentations were all oral. There was some
9 visual aids used.

10 Q Were there any other subjects discussed at that
11 meeting that you recall, sir, any other types of health
12 hazards or safety hazards at that meeting besides asbestos?

13 A No.

14 Q That was just strictly on asbestos?

15 A Yes.

16 Q Was one of the things discussed at that meeting
17 that the ladders should wear respirators?

18 A Yes, that was included.

19 Q I believe you testified there were some other
20 meetings with the pipe coverers some time in 1970 to 1974,
21 in that range? Approximately four other meetings?

22 A We had meetings in the summer of '71, I think
23 around June. Maybe it was about somewhere on the order of
24 eight or ten meetings, morning and afternoon, where we
25 indoctrinated all the fire line foremen in the shipyard in
26 regard to the asbestos hazard.

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1 Q What I'm getting at, sir, is, do you recall
2 how many meetings you had with just the pipe coverers?

3 A Well, in the first one we just talked to the
4 pipe coverers. The second one in 1971 we talked to all
5 the first-line supervisors in all the shops. There was
6 two meetings in 1972 and one in the fall of 1973.

7 In those last three meetings we did cover or
8 talk to and include some workers that were boilermakers
9 who we found were exposed to asbestos and we had previously
10 overlooked them.

11 Q During any of those meetings, Mr. Manning, did
12 you encounter any complaints from either the foremen or
13 the workers with respect to the use of respirators?

14 A Yes. I would answer this by saying these kinds
15 of complaints were not restricted to those meetings. From
16 time to time I would get information that there was resistance
17 among the workers to wearing these all the time. Yes.

18 Q What sort of complaints did they have in that
19 regard, Mr. Manning?

20 A Well, they would make such complaints as the
21 respirator gags me, which made me interpret that that they
22 couldn't freely breathe through them. They caused irritation
23 around the face. Sometimes they would cause fogging-up
24 of spectacles if they wore these things. Very hard to keep
25 these things sanitary.

26 I think the main complaint with the respirator
27 was that there was resistance to breathing, and you had
28 workmen that had some age, maybe their heart and respiratory

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1 system had declined somewhat, and after a short period of
2 time respiratory fatigue would occur and they simply would
3 take them off. When you interfere with a person's breathing
4 you interfere with his lifeline. The choice is obvious.

5 Q Were there complaints that they couldn't talk
6 and communicate while they were wearing these respirators?

7 A That's one of the drawbacks to wearing a respirator.

8 Q Also they complained they were hot, they got
9 very hot inside when they wore the respirators?

10 A In warm weather they were uncomfortable. As
11 I say, it caused sweating and so forth.

12 Q Did you wear a respiratory yourself when you
13 were taking the dust surveys?

14 A With one exception I did, yes.

15 Q Did you wear respirators every time you went
16 down to the fire room or engine room of a ship?

17 A No.

18 Q Did the type of respiratory change at some point
19 in time?

20 A Yes, they did.

21 Q They went to some sort of a throw-away or disposable
22 respirator sometime in 1971 or 1972?

23 A The first change was probably, maybe 1967.
24 It might have been '68. I think it was probably '67. The
25 respirator being issued was a mine safety appliance dust
26 respirator. I think they call it the dust flow.

27 And the means of improving this respirator is
28 they enlarged the filter holder and the filter to give the

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1 respiratory larger capacity, maybe a little bit easier breathing.

2 Then later, I believe it was probably early
3 '72, we were able to get ahold of a throw-away type respirator
4 that was made by the 3-M people. And these respirators
5 just came on the market and were approved by the U. S. Bureau
6 of Mines, which was a necessary approval for years.

7 After they became available the workers were
8 issued every morning a fresh respirator, throw-away type,
9 and they were given along with their coveralls.

10 Q Which group of workers are you referring to?

11 A These were the pipe coverers and insulators.
12 I believe they were also available to anybody else that
13 wanted them.

14 Q Would you say overall that the 3-M disposable
15 had better worker acceptance than the prior respirators?

16 A Yes.

17 Q Were they lighter?

18 A They were lighter. They were easier to -- less
19 breathing resistance. No problems with fogging up glasses.
20 Just all around better acceptance. Of course, communication
21 problems were still there.

22 Q Mr. Manning, talking about the indoctrination
23 meetings that you had with the other first-line supervisor-
24 foremen. First of all, could you tell us what you mean
25 by a first-line supervisor or foreman.

26 A The foreman is the immediate supervisor of the
27 workers. He goes around, assigns work, sees that the job
28 is done, takes care of the time, these sorts of things.

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1 The supervisor that's directly above the workmen.

2 Q Would that include inspectors?

3 A would not include inspectors or say that
4 they are first-line foremen, no.

5 Q In those meetings were the supervising foremen
6 of the other trades, was the presentation again oral to
7 those people about asbestos hazards?

8 A Yes.

9 Q Was there any sort of a sign-up sheet so that
10 you knew you had all the supervisors at the meetings and
11 they were all informed?

12 A I wouldn't know about this. If there was a
13 sign-up sheet it was the shop supervisor or people that
14 signed them up. I wouldn't know about that.

15 Q I take it from what you have testified to before,
16 the supervisor-foreman was supposed to pass on the knowledge
17 to the workers themselves?

18 A Yes.

19 Q The workers who were working directly for them?

20 A Yes.

21 Q Was there any sort of a follow-up program that
22 you were involved in to make sure that that happened?
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3 1 Q Mr. Manning, I believe you testified that after
2 you came to Long Beach that one of the things that happened
3 was you went to Puget Sound, the base up at Bremerton,
4 Washington; is that correct, sir?

5 A Yes.

6 Q Did that naval shipyard do the same type of work
7 as Long Beach, to your knowledge, sir?

8 A In part.

9 Puget Sound also constructed naval ships. This
10 kind of thing was not done in Long Beach.

11 Q Were they also involved in developing nuclear
12 warships; do you recall, sir?

13 A I don't know.

14 Q When was the trip you made to Puget Sound?

15 A It was in May of 1967.

16 Q Do you recall how many employees there were at
17 the Bremerton shipyard as compared to Long Beach?

18 A There was a slightly larger population in
19 Puget Sound. I think Puget Sound, the work force probably
20 varied between maybe 8,000 and 12,000 and Long Beach would
21 vary from somewhere between 6 and 9,000, depending on the
22 work load.

23 Q Do you know what the ratio was for workers'
24 comp claims at Bremerton for asbestos-related disease as com-
25 pared to Long Beach Naval Shipyard?

26 MR. CAMPILLO: I am going to object, your Honor. No
27 foundation.

28 THE COURT: The objection will be overruled. JM - 83

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1 THE WITNESS: I have no knowledge.

2 Q BY MR. NOTT: Mr. Manning, during the time that
3 you were at Long Beach did you ever see any Johns-Manville
4 insulation products being used?

5 A Yes.

6 Q Are you familiar with the brand name Thermobestos,
7 sir?

8 A Yes.

9 Q Did you ever see that being used in Long Beach
10 Naval Shipyard?

11 A Yes.

12 Q Did you ever see a product called 85 percent
13 magnesia by Johns-Manville being used at Long Beach?

14 A Yes.

15 Q Do you recall observing as to whether or not any
16 Johns-Manville cements, asbestos type cements, were used at
17 Long Beach?

18 A My recollection is very vague on that. I don't
19 recall that.

20 Q Did you ever see any warning label on any of those
21 Johns-Manville products that I just mentioned, the Thermobestos
22 or the 85 percent magnesia as to any health hazards that
23 might be associated with the use of those products?

24 MR. CAMPILLO: I am going to object as being outside the
25 scope of direct examination.

26 THE COURT: Objection is overruled.

27 THE WITNESS: I believe that later in my tenure there
28 was some kind of warning put on these containers.

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3

1 The Navy also had their own warning labels that
2 they stuck on containers and sometimes these labels would be on
3 the containers, sometimes not.

4 I think the label that I once in a while saw on
5 these were they labeled the containers "toxic."

6 Q Do you recall testifying before, sir, that the
7 first time you saw any warning on a Johns-Manville product was
8 in 1971 or 1972, in that area?

9 MR. CAMPILLO: Your Honor, I am going to object. That is
10 an improper form of impeachment.

11 THE COURT: The objection is overruled.

12 THE WITNESS: That would be correct, I think, as far as
13 my memory serves me. That along in that period these labels
14 -- it was after the OSHA Act came into effect and as a
15 consequence these containers, along with anything else, was
16 labeled.

17 Q BY MR. NOTT: Mr. Manning, I believe also you told
18 us that you met with a group of people from the Mt. Sinai group
19 in the late 1960's; is that correct, sir, that came to the
20 shipyard to visit?

21 A There was one group that came in the spring of '69
22 and another group came through in the fall of '71, I think.

23 Q Talking about that first group, Mr. Manning, do you
24 recall who was present in that group?

25 A There was a Dr. Nickerson and a Duncan Holiday.
26 There, I think there was somebody else. I can't remember who
27 it was.

28 Q Do you recall what the group did? Did they meet with

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4 1 you at the office, did they meet with you on ship board? Where
2 did you see them?

3 A I met them in, I believe it was, the Safety
4 Director's office was the length and extent of my -- I was
5 called in to meet them late in the afternoon and I had very
6 little to do with that particular tour.

7 Q Did you meet with them before they took their tour
8 or afterwards?

9 A It was after, late in the afternocr.

10 Q Did they make any recommendations to you at that
11 time regarding the use of asbestos-type products?

12 A I don't recall that they made any recommendations.

13 Q In the second meeting in the fall of 1971, I
14 believe that you stated that there was also another group from
15 the Mt. Sinai organization that came to see you.

16 A Yes.

17 Q Mr. Bill Reitze was in that group?

18 A Yes, he was.

19 Q Did you go on the tour with that group the second
20 time, sir?

21 A Yes, I was with them.

22 Q Do you recall exactly what the group observed
23 during that time?

24 A I believe they observed -- they may have observed
25 some rip-out and also some installation of asbestos, some
26 mild rip-out aboard one of the ships.

27 Q Did anyone in that group make any recommendations
28 to you, sir, regarding the use of asbestos products?

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5 1 A I don't think we got into recommendations. They
2 were there more or less to observe and learn.

3 Q You have no direct knowledge that they made any
4 recommendations; is that correct, sir?

5 A That is correct.

6 Q Did you advise anyone in that group of the problems
7 of workers wearing respirators that you had encountered?

8 A I don't believe that I brought the subject up.

9 Q Would it be a fair statement that the rip-out
10 procedure was by far and away the heaviest dust producer,
11 Mr. Wanning?

12 A Yes.

13 Q Did you ever take any other dust counts after the
14 one you mentioned in 1971, '72?

15 A Yes. I took samples from time to time as
16 situations came up.

17 Webster Ay, the general foreman, was very
18 knowledgeable and very active in trying to control the
19 asbestos hazards and he frequently requested sampling and I
20 would respond.

21 It was an ongoing thing as time permitted. There
22 was sampling there and again.

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4.1 1 Q Do you have some problems with your breathing,
2 Mr. Manning?

3 A I have a little chronic lung disease.

4 Q In fact, Mr. Manning, have you filed a lawsuit
5 against manufacturers of --

6 MR. CAMPILLO: I object, Your Honor. May we approach
7 the bench

8
9 (The following proceedings were held
10 at the bench, outside the hearing of
11 the jury:)

12
13 THE COURT: Do you want to start the question again?

14 MR. NOTT: The question is whether or not he filed
15 a lawsuit against manufacturers of asbestos products including
16 Johns-Manville.

17 THE COURT: What is the relevance of that?

18 MR. NOTT: The relevance, Your Honor -- the tenor
19 of his testimony to this point in time has been that it's
20 been the Navy's fault, the Navy's negligence in handling
21 the dust-control problem.

22 I think I'm entitled to develop the fact that
23 he's not only filed a workmen's compensation claim against
24 the Navy but he's brought his own negligence, strict liability
25 action against Johns-Manville.

26 THE COURT: I take it there is an objection.

27 MR. CAMPILLO: Yes. It's prejudicial and irrelevant.

28 THE COURT: Objection sustained.

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1 (The following proceedings were held
2 in open court, in the presence and
3 hearing of the jury:)

4
5 MR. NOTT: I have no further questions.
6

7 REDIRECT EXAMINATION

8 BY MR. CAMPILLO:

9 Q Mr. Manning, you mentioned that you did not
10 always wear a respirator when you did the sampling of the
11 dust in the air. What were the exceptions?

12 A The one exception was -- it was a sampling that
13 I did at night. I had to come back to the shipyard and
14 I took the equipment that I needed home and then came back
15 and I forgot to include my respirator and I had no key to
16 get it so I went about my business without a respirator.

17 Q Did you have any resistance from the management
18 of the shipyard to wearing respirators while you were doing
19 the dust sampling?

20 A No.

21 Q Mr. Manning, do you know that a meeting was
22 held in 1964 concerning asbestos as a possible hazard by
23 Dr. Selikoff?

24 A I know there was a meeting held. I'm not sure
25 whether Dr. Selikoff convened it or not. It was held under
26 the auspices of the New York Academy of Science. Dr. Selioff
27 may have had a good hand in it.

28 Q Are you aware as to whether or not any representative

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1 of the Navy was present at that meeting?

2 A Yes.

3 Q Somebody was?

4 A Yes. Clif Kreiger, the safety superintendent
5 of the Long Beach Naval Shipyard attended.

6 Q You mentioned that there were respirators available
7 to the insulators and other trades while you were at Long
8 Beach Naval Shipyard, is that correct?

9 A Yes.

10 Q Was there any rule making it mandatory for other
11 trades other than insulators to wear those respirators?

12 A To my knowledge there was never a rule, a regulation
13 making respirators mandatory for other trades.

14 Q As a general proposition, did other trades wear
15 respirators while you were at Long Beach Naval Shipyard,
16 and by "other trades," I mean other than insulators?

17 A On occasion, yes.

18 Q Frequently would you say or infrequently or
19 how would you quantify the use?

20 A Infrequently.

21 Q Mr. Manning, you did some dust sampling, and
22 you indicated on occasion the readings were above TLV, is
23 that correct?

24 A Yes.

25 Q Did you at any time compare the exposure or
26 the particles in the air at the site of the installation
27 or removal and compare that to 10 or 15 feet away?

28 A Yes.

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1 Q Generally what did you find when you made that
2 comparison?

3 A The concentration was less. Possibly one-third
4 the concentration. 10 or 15 feet away the levels would
5 be less.

6 Q When you mentioned the educational meetings
7 or the sessions that were held, and you indicated that some
8 included the first-line supervisors of the various trades,
9 were marine machinists one of those trades?

10 A Yes.

11 Q So their first-line supervisors would have been
12 involved in this meeting, to your knowledge?

13 A Yes.

14 Q When this group from Mount Sinai came to the
15 shipyard on two separate occasions, did they make any dust
16 readings?

17 A No.

18 Q Do you have any knowledge as to whether they
19 did not?

20 A The scope of the visit didn't include taking
21 samples. That was my job.

22 I would assume that the Navy would have objected
23 or at least they would have had to have the permission of
24 the Navy.

25 These people I think came into the shipyard
26 primarily because -- Webster Ay, who was a foreman and
27 then a general foreman and also held the office of metal
28 trades council president at one time, that's the union president.

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1 at one time, that's the union president, he had funds available,
2 and I think he generally sponsored --

3 MR. NOTT: Excuse me. May I interrupt.

4 I object to the answer at this point as being
5 a hearsay answer.

6 THE COURT: Objection overruled.

7 Continue with the answer, please.

8 THE WITNESS: Webster Ay was the tour guide and he
9 generally was the guiding and motivating person there.

10 It's my knowledge that the Mount Sinai people
11 relied heavily on union cooperation to get their sampling.
12 Their visits were visits to gain knowledge about the exposure
13 of shipyard workers to asbestos. They just wanted to familiar-
14 ize themselves with this process.

15 Q BY MR. CAMPILLO: Mr. Manning, were you through?

16 A Yes.

17 Q Do you know whether or not the Mount Sinai group
18 requested permission to take dust samples or to address
19 the employees directly before they came on the shipyard?

20 MR. NOTT: Objection. Calling for hearsay, Your Honor.

21 THE COURT: Objection overruled.

22 THE WITNESS: No.

23 THE COURT: "No," you don't know?

24 THE WITNESS: No, I don't know.

25 Q BY MR. CAMPILLO: Mr. Manning, is it true that
26 while you were at the Naval Shipyard between 1967 and 1974
27 it was recognized by you and the Navy that asbestos could
28 be a health hazard?

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1 A Yes.

2 Q Would you say the Navy did everything in their
3 power to assist you in doing your job as an industrial hygienist
4 to control that possible health hazard?

5 A The answer is no.

6 MR. CAMPILLO: I have no further questions. Thank
7 you.

8

9

RECROSS-EXAMINATION

10 BY MR. NOTT:

11 Q Mr. Manning, were we at war in 1967 when you
12 came to work at the Long Beach Naval Shipyard?

13 A February of 1967.

14 Q The Vietnam war was going on at that time?

15 A Yes.

16 Q Was the Long Beach Naval Shipyard a repair yard
17 for Naval warships, is that correct?

18 A Yes.

19 Q Some of those ships were on duty for the Vietnam
20 war?

21 A Yes.

22 Q Mr. Manning, in response to Mr. Campillo's
23 questioning on whether or not respirators were available
24 to all other trades, prior to the throw-away respirators,
25 the dust flow that you mentioned, were those available to
26 workers other than respirators (sic)?

27 A Other than pipe coverers and insulators?

28 Q Yes.

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1 A Yes, they were available on request. The procedure
2 was that the worker requested a voucher from his foreman
3 if he wanted a respirator and he took the voucher to the
4 safety issue store where he would be issued a respirator.

5 Q Prior to 1972, Mr. Manning, when the throw-aways
6 became available, I believe you stated that the dust flows
7 were of a type that were approved by the U. S. Bureau of
8 Mines, is that correct?

9 A Yes.

10 Q Do you know whether or not there had been any
11 testing to show whether or not those respirators were effective
12 in screening out asbestos fibers?

13 A I have knowledge in that area, yes.

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Q What is your knowledge, sir?

A During that time the U.S. Bureau of Mines used silica dust as the dust to test dust respirators. They did not use, test them against asbestos.

Q They did not test them against asbestos; is that correct, sir?

A No, not specifically.

MR. NOTT: I have nothing further. Thank you, Mr. Manning.

MR. CAMPILLO: No further questions.

THE COURT: Very well. Is this witness excused?

MR. CAMPILLO: Yes, sir.

MR. NOTT: Yes, sir.

THE COURT: You may step down, sir.

MR. EVANS: Your Honor, at this time Johns-Manville would like to call Dr. Hinshaw to the stand, please.

THE CLERK: Would you step to the witness stand and be sworn as a witness.

H. CORWIN HINSHAW,
called as a witness by and on behalf of the defendant, having been duly sworn, was examined and testified as follows:

THE CLERK: Be seated and will you state your name.

THE WITNESS: I am H. Corwin Hinshaw.

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18/11/11

Manning

FILE COPY

SUMMARY OF TRIAL TESTIMONY OF SHELDON H. MANNING IN
JACK LOFSTROM VS. FIBREBOARD CORPORATION, ETC., ET AL
NOVEMBER 17, 1981
VOLUME IX

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Employment and Educational Background
pp. 1639-1640

Deponent is not currently employed. Was employed from March 7, 1967 to February 25, 1974 at Long Beach Naval Shipyard. Prior to that was employed by PA Department of Health as Industrial Hygienist. Prior to that 14 years as Chemist for Bethlehem Steel and prior to that employed by Hooker Electric Chemical Company as Chief Operator and Manufacturer of chemicals. Has a BS degree in commercial chemistry from Pennsylvania State University.

Chain of Command at the Shipyard
pp. 1640-1642

When he arrived at the shipyard, his job title was Industrial Hygienist and his immediate supervisor was Captain George Watkins, Senior Medical Officer. The Medical Department was a department of the shipyard. Watkins reported directly to the shipyard commander, Admiral Dolan. Admiral Hart succeeded Admiral Dolan and Captain Fey succeeded Hart. Captain Watkins was succeeded by Jose Smith in May of '69 and was still in that position when Manning left.

Industrial Hygiene Program at the Time He Arrived at the Shipyard
pp. 1642-1645

Bill Marr was the Industrial Hygienist that preceeded him. When he arrived in 1967 he had an office and a desk but no equipment in which to perform his job, or files which pertained to the industrial hygiene program. He looked for industrial hygiene records but didn't find any.

His Responsibilities as Industrial Hygienist in 1967
pp. 1645-1648

The Industrial Hygienist job was to recognize and evaluate and make recommendations for control of industrial health hazards. One area he was concerned with was insulation materials affect on workers. He was a member since 1961 of the ACGIH and was also a member of the American Industrial Hygiene Association.

ACGIH Recommended Threshold Limit Values
pp. 1648-1649

The ACGIH recommended TLV's for approximately 250 substances. It was his responsibility to evaluate the environment and determine if the TLV's exceeded. Enforcement wasn't his job. In 1967 the ACGIH had recommended a TLV of 5 million particles.

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Request for Dust
Collection
Equipment
pp. 1969-1653

His job description contained requirements that he evaluate the environment. When he arrived at the shipyard he had no equipment to make dust counts. He requested collecting and counting equipment around April of 1967 and had dust counting capability about June of 1968. He received a microscope mid-ge impingers, an air pump, certain glass equipment, Whipple desk and volumetric flask. He never got an answer from the Navy as to why he hadn't received the equipment which he requested of the administrative officer monthly. When he began doing dust samples in '68 he was aware from reference works of the hazards connected with inhalation of asbestos.

Classes to Educate
Workers as to
Hazards
pp. 1653-1659

In February of '68 he held an indoctrination session for all pipe coverers and insulators to educate them about hazards related to asbestos. From 1970 to 1974 he held 3 other such classes. As part of the indoctrination he advised that the present method of asbestos control would protect them and recommended the use of respirators. There were respirators in the shipyards from 1967 to 1974. From 1967 to 1970 he did not conduct a session to inform people other than pipe coverers and insulators of asbestos dangers. In June of '71 the first line supervisors foremen were brought into the safety department and given indoctrination about asbestos hazards. They were told to pass this information on to other workers during stand up safety meetings. He didn't follow up to see if they did this.

Differential Pay
for Asbestos Work
pp. 1659-1662

The differential pay for working with asbestos products went into effect in mid-1970 and was still in effect when he left the shipyard. The people responsible for developing it were civilian employees employed by the Navy within the personnel department. He understood that differential pay was promulgated by civil service commission to compensate workers in situations where the federal employer couldn't guarantee his safety. Differential pay was 4 to 8% increase over regular pay.

Memo to Jose Smith
Dated June 30, 1970
pp. 1663-1678

The attorneys approached the bench to discuss Mr. Cantrell objection to the relevancy of Exhibit 37.

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In his memo he told Jose Smith what the condition of the Industrial Hygiene office was at the time he came to the shipyard. He told him that Bill Marr had done work in evaluating asbestos hazard and had been a pioneer in alerting the Navy as to asbestos dangers and that he had conducted a survey and published the results. He also told him that Marr had indoctrinated the workers. He advised Smith that after Marr's report was published, he transferred to another job in the Fall of '64. He told him there was no Industrial Hygienist from Late '64 until 1967. He told him that when he arrived in '67 there was not equipment, literature or files. He said there was some equipment in storage that was so old it was of no use. He told Smith that when he began his position, Watkins had put a restriction on him that he produce no written reports and he thought it was an important part of his position. He was asking Smith for support necessary to carry out his Industrial Hygiene Program. The reason he wrote this memo was because he had been trying for 3 years to upgrade the program and he didn't feel that verbal communication was getting him anywhere. There was a Navy regulation requiring an Industrial Hygienist be present in the shipyard and he felt that because he wasn't allowed to develop a confident program, his job was in part a window dressing. He said the program was under staffed compared to other Naval Shipyards. He asked that he be promoted from GS11 to GS12 and to be given a budget. He asked for a secretary and an IH Assistant and to be allowed to go to the ACGIH conference every year. He requested additional equipment. He asked for these things verbally more than once. He received a written response from Smith about a month later.

Navy Recommendations Re: Handling of Asbestos Products
pp. 1682-1688

When he arrived there were Navy instructions in place in the shipyard safety manual. There were also instructions that originated from the Bureau of Medicine and Surgery in Washington that were in effect at that time. BUMEDS is responsible for delivery of medical service to the Navy. BUMEDS set forth a requirement that respirators be worn

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when working with insulation and recommended exhaust ventilation vacuum method and wet method.

Use of Respirators,
Vacuums and Wet
Method
pp. 1688-1690

Between 1967 and 1970 he was on board ship about 3 times a week. He observed insulators installing in the engine and fire rooms and machinists working in the engine and fire rooms while the insulators were working. Based on observation, he would say insulators wore respirators about 25% of the time. He saw them utilizing vacuum cleaners about 25% of the time but did not observe them using the wet methods. He's seen air hoses used to blow down engine rooms which wasn't a recommended practice.

Recommendations By
the Navy Re:
Coveralls
pp. 1690-1692

There was instruction by NAVAC in Summer of '69 that recommended shipyard asbestos workers be provided with fresh coveralls daily. Shipyard command specifically, Frank Nease felt it was too expensive and not essential. The recommendation was finally implemented in 1971.

Safe Practice Recom-
mendations To
Workers
pp. 1693-1696

He made recommendations concerning safe procedures that asbestos workers should utilize. The workers foreman or first line supervisor has the responsibility to enforce safe practices. It was not Manning's responsibility to follow up enforcement in terms of discipline if an unsafe practice was encountered.

CROSS EXAMINATION BY MR. CANTRELL

Economic Considera-
tions and Implemen-
tation of Indus-
trial Hygiene
Program
p. 1696

There is an economic problem as to procedures they have to go through to get equipment or coveralls around the shipyard.

Navy Recommenda-
tions Re: Safety
Procedure When
Using Asbestos
pp. 1696-1697

The safety procedures to be used when using asbestos were recommendations, not directives from the Navy.

Participation in
Indoctrination of
Foremen Re: Safety
Procedures
pp. 1698-1699

His part in these meetings was to point out health aspects of exposure to asbestos. He went over the work Selikoff had published and pointed out the relationship of smoking with asbestos disease and informed them of the increased incident of cancer among asbestos

workers. He attended about 10 meetings in the Summer of '71. There were no handouts given.

Threshold Limit
Values
pp. 1699-1700

The ACGIH has no official government sanction nor do the TLV's they recommend. The philosophy behind the TLV was that if a worker worked in an environment consistently below these levels he wasn't likely to experience occupational disease in a working lifetime. The 5 million particle TLV was based on the Fleischer-Drinker report. It has since been reduced to an OSHA standard of 1 fiber per cc.

REDIRECT EXAMINATION BY MR. BAUMGAERTNER

Organizations That
Suggested TLVs
pp. 1701-1702

Prior to 1972 when OSHA came into effect the Pennsylvania Department of Health which didn't have jurisdiction over the shipyard recommended a TLV for asbestos. Prior to 1972 BUMEDS recommended a 5 million particle TLV.

NAVSHIPS Instruc-
tion 5100.26
pp. 1703-1706

Instruction 5100.26 relates to control of asbestos hazards at the shipyard and it came to him on February 9, 1971. He was part of the process of implementing recommendations carried out in that document. These instructions are recommendations to the shipyard commander. After some deliberation among shipyard personnel the procedure was to write up shipyard instruction that either accepted or rejected some of these proposals. They incorporated those in a shipyard safety manual. This was done by February of '72. The foremen had responsibility for enforcing these instructions. Manning did some work in approving disposable respirators and made an effort to see they were tested and had a good deal of input as to which one was accepted. Disposable respirators became available around '71 or '72.

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FILE COPY

SUPERIOR COURT OF THE STATE OF CALIFORNIA

FOR THE COUNTY OF LOS ANGELES

DEPARTMENT NO. 19

HON. JOHN A. LOOMIS, JUDGE

--oOo--

FILE COPY

JACK LOFSTROM,

Plaintiff,

vs.

No. SOC 51864

FIBREBOARD CORPORATION, etc., et al.,

Defendants.

REPORTERS' DAILY TRANSCRIPT

Tuesday, November 17, 1981

Volume 9

Pages 1526 to 1725

APPEARANCES: (See Volume 2)

COPY

DENNIS J. RIGBY, CSR No. 1166

- and -

VERNON W. KISSEE, CSR No. 1774

Official Reporters

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MARR, William T.	(Portions of Deposition of 2-5-80 Read into the Record Commencing at Page 1571)			

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35 - Exhibit C to Deposition of William T. Marr	1586	1591

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14-1 1 LOS ANGELES, CALIFORNIA; TUESDAY, NOVEMBER 17, 1981; 1:33 P.M.

2 ---o0o---

3
4 THE COURT: Would you like to proceed, Mr. Baumgaertner.

5 MR. BAUMGAERTNER: Yes, I would, Your Honor.

6 At this time we would call Sheldon Manning to the
7 stand.

8 THE CLERK: Would you raise your right hand, please.

9
10 SHELDON H. MANNING,
11 called as a witness by the defendant, was sworn and testified
12 as follows:

13 THE CLERK: Be seated and state your name, please.

14 THE WITNESS: My name is Sheldon H. Manning.

15
16 DIRECT EXAMINATION

17 BY MR. BAUMGAERTNER:

18 Q Mr. Manning, are you currently employed?

19 A No.

20 Q During the late sixties and early seventies, were
21 you employed by the United States Navy?

22 A Yes.

23 Q Where were you employed, sir?

24 A The Long Beach Naval Shipyard.

25 Q During what years were you employed at the Long
26 Beach Naval Shipyard?

27 A I was employed from March 7th, 1967, to February
28 25th, 1974.

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1 Q Almost seven years, correct?

2 A Yes.

3 Q Prior to that time, Mr. Manning, did you have any
4 training or experience in any field of professional endeavor?

5 A Yes.

6 Q What training and experience did you have?

7 A Prior to my employment in the shipyard, I was
8 employed by Pennsylvania Department of Health in the capacity
9 of industrial hygienist. Prior to that I worked for 14 years
10 as a chemist for the Bethlehem Steel Corporation; steel.

11 Prior to that I had worked for Hooker Electric
12 Chemical Company in the capacity of chief operator and manu-
13 facturer of chemicals.

14 Q Sir, tell the jury briefly what your educational
15 background is.

16 A I have a B.S. Degree in commercial chemistry from
17 Pennsylvania State University.

18 Q When you arrived at the Long Beach Naval Shipyard,
19 what was your job title?

20 A Job title was industrial hygienist.

21 Q Who was your immediate supervisor?

22 A Was Captain George Watkins, senior medical officer
23 of the shipyard.

24 Q Were you assigned to a department within the organi-
25 zational structure of the shipyard?

26 A The medical department was a department of the
27 shipyard, and I was part of the medical department.

28 Q Did you report to somebody in the medical

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1 department?

2 A I reported to Captain Watkins.

3 Q Was Captain Watkins the head of the medical
4 department?

5 A Yes.

6 Q Was he a doctor?

7 A Yes.

8 Q Did Captain Watkins report to anyone directly in
9 the shipyard?

10 A He reported directly to the shipyard commander.

11 Q Mr. Manning, who was the individual ultimately
12 responsible for what went on inside the Long Beach Naval
13 Shipyard?

14 A The shipyard commander.

15 Q At the time you arrived in 1967, who was the
16 shipyard commander?

17 A The shipyard commander at that time was Admiral
18 Dolan.

19 Q Did commanders change during your tenure at the
20 shipyard?

21 A Yes.

22 Q What other commanders were present at the shipyard
23 during the period of time you were there?

24 A There was an Admiral Hart -- succeeded Admiral
25 Dolan; and a Captain Fey succeeded Admiral Hart; and I think
26 there was a Captain -- I believe his name was Dabrowsky. He
27 was a short time before I left.

28 Q During the period of time that you were there,

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14-4 1 sir, did the medical officer change from Captain Watkins?

2 A Yes. Captain Watkins was succeeded by then
3 Commander José Smith, who came aboard in May of 1969; and he
4 remained as the medical officer at the time I left.

5 Q You indicated you came to the shipyard in 1967.
6 Do you know if there was an industrial hygienist at the shipyard
7 that preceded you?

8 A Yes.

9 Q Do you know who it was, sir?

10 A Bill Marr.
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15-1 1 Q Do you know when Bill Marr left the shipyard as
2 an industrial hygienist?

3 A Sometime, I believe --

4 MR. CANTRELL: Objection. Lack of foundation as to
5 this witness.

6 THE COURT: The objection is sustained.

7 MR. BAUMGAERTNER: I am sorry, Your Honor? Sustained?

8 THE COURT: Yes.

9 MR. BAUMGAERTNER: The question is did he know when
10 Bill Marr left the shipyard.

11 MR. CANTRELL: Objection. Lack of foundation.

12 THE COURT: He can say yes or no. It sounds like it
13 would be based upon hearsay.

14 Q BY MR. BAUMGAERTNER: You can answer the question.

15 A The answer is yes.

16 Q When did Bill Marr leave the shipyard to your
17 knowledge?

18 MR. CANTRELL: Objection. Lack of foundation.

19 THE COURT: Sustained.

20 Q BY MR. BAUMGAERTNER: Did you have personal
21 knowledge when Bill Marr left the shipyard?

22 A Yes.

23 Q When did he leave the shipyard?

24 MR. CANTRELL: Still lack of foundation, Your Honor.

25 THE COURT: It is sustained for lack of foundation.

26 Q BY MR. BAUMGAERTNER: Mr. Manning, at the time
27 you took over your duties in 1967, was there any
28 industrial hygienist stationed at the Long Beach Naval

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1 Shipyard?

2 A No.

3 Q Do you know, sir, when the last time an
4 industrial hygienist was stationed at the Long Beach Naval
5 Shipyard?

6 A Yes.

7 Q When was that?

8 MR. CANTRELL: Same objection. No foundation.

9 THE COURT: Objection sustained.

10 Q BY MR. BAUMGAERTNER: When you arrived at the
11 shipyard in 1967, did you have an office?

12 A Yes.

13 Q Did you have a desk?

14 A Yes.

15 Q Did you have any equipment in which to perform
16 your job as an industrial hygienist?

17 A No.

18 Q Did you have any files or papers pertaining to
19 the industrial hygiene program?

20 A No.

21 Q Did you have any medical journals or books
22 pertaining to industrial hygiene?

23 A No.

24 Q Did you have a secretary?

25 A No.

26 Q Did you learn, sir, that prior to the time that
27 you had arrived at the shipyard, industrial hygiene records
28 had been maintained by your predecessors?

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1 MR. CANTRELL: Objection. Calls for hearsay.

2 THE COURT: Sustained.

3 Q BY MR. BAUMGAERTNER: Are you generally familiar
4 with the procedure for maintaining industrial hygiene records
5 that was in effect at the time you came to the shipyard?

6 MR. CANTRELL: Objection. The question is vague and
7 ambiguous as to what was there when he got there. If it is
8 what he implemented, I have no objection.

9 THE COURT: The objection is overruled.

10 Do you remember the question?

11 THE WITNESS: No, Your Honor.

12 Would you repeat the question?

13 Q BY MR. BAUMGAERTNER: Certainly.

14 At the time you got to the shipyard, sir, were
15 you aware that industrial hygiene records were maintained?

16 A I was not aware that there were records main-
17 tained, no.

18 Q At the time you got to the shipyard, sir, did
19 you search for records pertaining to industrial hygiene?

20 A Yes. I looked for records.

21 Q Did you find any industrial hygiene records
22 when you got to the shipyard in 1967?

23 A No.

24 Q What were your responsibilities as the
25 industrial hygienist for the Long Beach Naval Shipyard when
26 you arrived there in 1967?

27 A Briefly, the industrial hygienist's job is to
28 recognize and evaluate and make recommendations for control

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1 of industrial health hazards. There was a long job des-
2 cription spelled out a lot of these duties which I can't
3 remember at this time.

4 Essentially, the capsule definition of
5 industrial hygienist is what I said.

6 Q Was it your job to promote safety at the shipyard?

7 A It was my job to make recommendations where
8 necessary to promote the health -- maintain the health of
9 the worker and defend the worker against the hazards -- the
10 health hazards of the industrial environment.

11 Q Was one of the areas you were concerned with in
12 March of 1967 the area of insulation materials as it would
13 affect workers?

14 A Yes.

15 Q At the time you arrived at the shipyard in 1967,
16 were you a member of any organizations pertaining to
17 industrial health?

18 A Yes.

19 Q What organizations did you belong to, sir?

20 A The American Conference of Governmental
21 Industrial Hygienists, the American Industrial Hygiene
22 Association.

23 Q How long had you been a member of the American
24 Conference of Governmental Industrial Hygienists?

25 A I joined that organization in 1961, I believe.

26 Q Are you aware, sir, that among the duties of the
27 ACGIH is the recommendation of certain special limit values?

28 MR. CANTRELL: Objection.

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1 May we approach the bench, Your Honor?

2 THE COURT: Yes.

3 (The following proceedings were held
4 at the bench:)

5 MR. CANTRELL: Counsel is having difficulty shifting
6 gears into direct examination.

7 This is the second leading question, and it is
8 assuming a fact not in evidence. I thought we just best slow
9 down. I will object to the question as leading and also
10 assuming a fact not in evidence.

11 THE COURT: You can make those objections from counsel
12 table as long as you don't argue them.

13 MR. CANTRELL: Fine.

14 THE COURT: It will save you the trip.

15 The objection is sustained.

16 MR. BAUMGAERTNER: As long as we are here, let's use
17 the time expeditiously.

18 I am informed by Mr. Manning that he has sub-
19 mitted a claim for an asbestosis related disability which
20 claim is currently pending and which Mr. Cantrell advises
21 me he intends to inquire about during cross-examination.

22 THE COURT: I indicated yesterday it shouldn't be
23 done without first approaching the bench. That is still
24 the ruling.

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1 (The following proceedings were held in
2 open court in the presence of the jury:)

3 Q BY MR. BAUMGAERTNER: Mr. Manning, are you familiar
4 with the term threshold limit value?

5 A Yes.

6 Q Would you please give the jury your understanding
7 of that term.

8 A Threshold limit value is generally a concentration
9 or a limit below which a workman can be exposed for an eight-
10 hour day without risk of contracting occupational disease.

11 Q Did the ACGIH recommend TLVs for various substances
12 in 1967?

13 A Yes.

14 Q Approximately how many substances did the ACGIH
15 recommend TLVs?

16 A Approximation would be about 250.

17 Q Was it part of your responsibility as an industrial
18 hygienist to see if the recommended TLVs were being enforced
19 in the shipyard?

20 A It was my responsibility to evaluate the industrial
21 environment and determine whether the TLVs were exceeded or
22 not exceeded. Enforcement wasn't part of my duties.

23 Q At the time that you arrived at the shipyard in
24 1967, was there a TLV for asbestos particles?

25 MR. CANTRELL: Excuse me. The question is vague and
26 ambiguous. If it is one of the recommendations from ACGIH,
27 there is no objection. But the implication is there is some
28 other TLV.

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1 THE COURT: It may be clarified.

2 MR. BAUMGAERTNER: Certainly.

3 Q In 1967, did the ACGIH have a recommended TLV for
4 asbestos particles?

5 A Yes.

6 Q When you arrived at the shipyard, did you know
7 what this recommendation was?

8 A Yes.

9 Q What was it?

10 A It was the threshold limit value established by
11 the Threshold Value Committee of the American Conference of
12 Governmental Industrial Hygienists -- was five million particles
13 per cubic foot of air.

14 Q At the time that you arrived at the shipyard in
15 1967, was it within your job description to measure asbestos
16 dust particles in the air?

17 A My job description contained requirements that
18 I evaluate the environment. I can't say right now whether
19 asbestos was named specifically, but that would include it.

20 Q Is it your understanding that certain type of equip-
21 ment is utilized to make dust counts?

22 A Yes.

23 Q When you arrived at the shipyard in March of '67,
24 did you have any equipment that would enable you to make
25 asbestos dust counts around the shipyard?

26 A No.

27 Q Did you request from someone at the shipyard that
28 you be given that type of equipment?

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1 A Yes.

2 Q When did you request this?

3 A I requested certain equipment, including dust
4 counting equipment, soon after I arrived; within a month.

5 Q So by April of 1967 you had made a request for
6 this equipment?

7 A Yes.

8 Q Did you ever get the equipment?

9 A Yes.

10 Q When did you get the equipment?

11 A I had dust counting capability about June of 1978.

12 Q Over a year later?

13 A Over a year later.

14 THE COURT: '78 or '68?

15 THE WITNESS: '68, beg your pardon.

16 Q BY MR. BAUMGAERTNER: What type of equipment did
17 you finally receive that enabled you to make asbestos dust
18 particle counts?

19 A Well, I received a microscope that was capable
20 of magnification of 100 times and 950 times. I received midget
21 impingers for collection of dust; an air pump; certain other
22 glass equipment; slides; whipple desk and volumetric flask.
23 That was about it.

24 Q Had you ever utilized this equipment before you
25 had come to the Long Beach Naval Shipyard?

26 A Yes.

27 Q To your knowledge, Mr. Manning, was this equipment
28 so sophisticated that it had to be specially constructed?

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16-4

1 A No.

2 Q To your knowledge, Mr. Manning, was this equipment
3 readily available through suppliers?

4 MR. CANTRELL: Objection as irrelevant.

5 THE COURT: Objection is sustained.

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17-1 1 Q BY MR. BAUMGAERTNER: Mr. Manning, do you know
2 why it took so long for you to get this equipment?

3 MR. CANTRELL: Same objection.

4 THE COURT: Overruled.

5 You may answer.

6 THE WITNESS: There was --

7 MR. CANTRELL: The question really calls for a yes or
8 no answer. There may be further objection after that answer
9 come in.

10 THE COURT: It may be answered yes or no.

11 THE WITNESS: I would answer it no.

12 Q BY MR. BAUMGAERTNER: Did you request from the
13 Navy on more than one occasion you be provided with this
14 equipment?

15 A Yes.

16 Q Did you ever get an answer from the Navy as to
17 why you were not being afforded this equipment?

18 A No, I didn't get an answer.

19 Q Approximately how many times did you request
20 this equipment from the Navy before you finally received it
21 in July of -- in June of 1968?

22 A I would go up to the administrative officer
23 about once a month and request equipment.

24 Q When you finally got the equipment in 1968, did
25 you start doing dust samples around the shipyard?

26 A Yes.

27 Q At that time, sir, were you aware that asbestos
28 insulation products presented a health hazard to shipyard

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1 workers?

2 A Yes.

3 Q How did you become aware of this information?

4 A Well, this information came to me through
5 reading available reference works, this knowledge was
6 available when I first became an industrial hygienist,
7 there were hazards connected with inhalation of asbestos
8 dust.

9 Q Did you attempt to fulfill your job as an
10 industrial hygienist by conducting classes to educate ship-
11 yard workers about the hazards that you knew of?

12 A Yes.

13 Q What did you do in that respect?

14 A There was indoctrination sessions held in, I
15 think, February of 1968 where all of the pipe coverers and
16 insulators were brought in, and I think three or four, and
17 they were indoctrinated by myself as well as several other
18 people who participated in this indoctrination.

19 MR. CANTRELL: Can we approach the bench, Your Honor?

20 THE COURT: Yes.

21 (The following proceedings were held
22 at the bench:)

23 MR. CANTRELL: We are now on the same problem we had
24 encountered as to the deposition of Mr. Marr, and I am going
25 to move to strike the last answer as not relevant to this
26 case and not responsive to the question.

27 Also, I request as to what the purpose of
28 offering this witness is. If it is the same line as the

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1 deposition of Mr. Marr was being offered, then the same
2 evidence or the same admonition to the jury should be given.
3 If not, then he is being offered in some other capacity, and
4 I am not familiar with that.

5 THE COURT: Overrule the objection.

6 I will give the jury a limiting instruction.

7 MR. CANTRELL: Pardon me?

8 THE COURT: I said I will overrule the objection and I
9 will give the jury a limiting instruction.

10 MR. CANTRELL: Can we also inquire is this witness
11 being offered in any way as an expert?

12 MR. BAUMGAERTNER: No, he is not.

13 (The following proceedings were held
14 in open court in the presence of the
15 jury:)

16 THE COURT: Ladies and gentlemen, the answer to these
17 questions that are now being asked, the evidence is received
18 only as evidence of what information or knowledge the Navy
19 or its employees or personnel had, not as evidence that
20 relates to knowledge of the plaintiff.

21 MR. CANTRELL: Thank you, Your Honor.

22 Q BY MR. BAUMGAERTNER: Mr. Manning, you were
23 telling us about an indoctrination session you had with the
24 pipe coverers and insulators in 1968 where you were
25 explaining asbestos hazards.

26 Were there any other occasions you got the pipe
27 coverers and insulators together to explain to them about
28 the dangers of asbestos insulation products?

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1 A Yes.

2 Q How many other times before 1970 did you do that,
3 sir?

4 A Before 1970?

5 Q Yes, sir.

6 A It was just that one occasion.

7 Q One time from '67 to 1970?

8 A That is correct.

9 Q And after 1970 up until the time you left the
10 shipyard, from 1970 to 1974, how many times did you get the
11 insulators together to inform them of the hazards of
12 asbestos products?

13 A Three other occasions.

14 Q At the first meeting, sir, did you request the
15 insulators wear respirators when working around insulation --

16 MR. CANTRELL: Objection. Counsel is again leading
17 the witness, Your Honor.

18 THE COURT: It is overruled as to this question.

19 It may be answered yes or no.

20 THE WITNESS: Yes.

21 Q BY MR. BAUMGAERTNER: What did you tell them in
22 that regard?

23 A Well, as part of the indoctrination, I advised
24 them that the present method of control of asbestos would
25 protect them and that it would be very wise to wear their
26 respirators as much as they possibly could.

27 MR. CANTRELL: Move to strike the first portion as to
28 the present method would protect them. The question only

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1 related as to what he told them about respirators, Your
2 Honor.

3 THE COURT: The motion is denied.

4 Q BY MR. BAUMGAERTNER: Were there respirators
5 available in the shipyard from 1967 on for use by
6 insulators?

7 MR. CANTRELL: Objection. No foundation as to
8 knowledge on the part of this witness.

9 THE COURT: Sustained on that ground.

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1 Q BY MR. BAUMGAERTNER: Mr. Manning, do you know
2 if there were respirators in the shipyard from 1967 to 1970?

3 A Yes.

4 Q Were there?

5 A Yes.

6 Q From 1970 up until the time you left in 1974, were
7 respirators available for pipe coverers and insulators to
8 utilize?

9 A Yes.

10 Q From 1967 up until 1970, did you have an indoc-
11 trination session to inform other people at the shipyard con-
12 cerning the dangers of working around asbestos-containing
13 insulation products?

14 And by others, I mean other than pipe coverers
15 and insulators.

16 A No.

17 Q From 1970 up until 1974, did you ever have such
18 a meeting?

19 A Yes.

20 Q How many times?

21 A One series of talks, yes.

22 Q When you say a series, were that more than one
23 meeting?

24 A Yes.

25 Q Were these series held at the shipyard?

26 A Yes.

27 Q Did you conduct them?

28 A I participated.

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18-2

1 Q Were these shop meetings, sir?

2 A No.

3 Q Would you explain what the meetings were?

4 A In I think June of 1971, the first line supervisors-
5 foremen were brought into the safety department and given
6 indoctrination about the hazards of being exposed to asbestos.

7 Q Were they told that they should impart this infor-
8 mation to the rest of the people?

9 MR. CANTRELL: Objection, Your Honor, counsel is leading
10 the witness again.

11 THE COURT: Sustained.

12 MR. BAUMGAERTNER: I am sorry.

13 Q Mr. Manning, what was told to these first line
14 supervisors in June of 1971?

15 MR. CANTRELL: That's just been asked and answered,
16 Your Honor.

17 THE COURT: Is sustained. You may ask if anything else
18 was told.

19 MR. BAUMGAERTNER: Yes.

20 Q Was there anything else told?

21 A They were requested to carry this information that
22 we imparted to them to their -- the people under them in the
23 standup safety meetings that were held periodically in the
24 shipyard.

25 Q Who were the first line supervisors?

26 A They were the foremen.

27 Q Did each shop have a first line supervisor?

28 A Yes.

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18-3 1 Q Did you follow up to see that the foremen passed
2 on the information?

3 A No.

4 Q During the period of time that you were in the
5 shipyard, Mr. Manning, was there in effect a program that
6 provided differential pay for different types of work?

7 A Yes.

8 Q Was differential pay ever provided for asbestos
9 work?

10 A Yes.

11 MR. CANTRELL: Objection as irrelevant, Your Honor.

12 THE COURT: It's overruled.

13 Q BY MR. BAUMGAERTNER: To your knowledge, Mr. Manning,
14 when was differential pay offered for working with asbestos
15 products?

16 A Well, best of my knowledge, our differential pay
17 went into effect sometime around the middle of 1970, I believe.

18 Q How long did it stay in effect?

19 A It was in effect when I left the shipyard.

20 Q Were you instrumental in developing differential
21 pay for asbestos work?

22 A I would answer that, that my advice was sought
23 by the people who were responsible for developing differential
24 pay.

25 Q Who were the people responsible for developing
26 differential pay?

27 A That responsibility was given to -- it's a group
28 that doesn't immediately come to mind. They were in charge

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18-4 1 of -- it was a group inside the personnel department.

2 Q Were these naval employees?

3 A They were civilian employees, yes.

4 Q Employed by the navy?

5 A Yes.

6 Q Do you understand why differential pay was
7 instituted?

8 MR. CANTRELL: Objection, calls for an opinion of the
9 witness.

10 THE COURT: He may answer it yes or no as to whether
11 he understands it or not.

12 THE WITNESS: Yes.

13 Q BY MR. BAUMGAERTNER: Did you understand why they
14 wanted your input as to whether or not differential pay could
15 be provided for asbestos work?

16 A Yes.

17 Q What was your understanding?

18 MR. CANTRELL: Objection, calls for conclusion of the
19 witness. No foundation. Vague and ambiguous. Irrelevant.

20 THE COURT: Sustained for lack of foundation as to how
21 he obtained the understanding.

22 Q BY MR. BAUMGAERTNER: Mr. Manning, did you have
23 a discussion with these civilian employees before the decision
24 was made to institute differential pay for asbestos work?

25 A Yes.

26 Q As a result of that discussion and as a result
27 of your training and experience around the shipyard, did you
28 reach an understanding as to why differential pay was being

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18-5
1 sought for asbestos work?

2 MR. CANTRELL: May we approach the bench, Your Honor?

3 THE COURT: Well, if you have an objection you can state
4 the ground, not the argument.

5 MR. CANTRELL: Yes. I will object that it calls for
6 a conclusion of the witness and is vague and ambiguous, and
7 there is no foundation, still.

8 THE COURT: Well, the objection is overruled, but the
9 evidence is received only as evidence of this witness's
10 knowledge and state of mind, not as evidence to the truth of
11 any statement that may be made.
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1 Q BY MR. BAUMGAERTNER: You may answer.

2 A Will you restate the question.

3 Q Yes.

4 Based upon your training and experience and the
5 information that you learned from the people in the personnel
6 department, what was your understanding as to why differential
7 pay was implemented for asbestos work?

8 A It was my understanding that the differential pay
9 plan was promulgated by the Civil Service Commission to
10 compensate workers who were put in situations where the federal
11 employer could not completely guarantee the safety of the
12 worker.

13 Q What was the significance of differential pay?

14 MR. CANTRELL: Object to that question as vague and
15 ambiguous.

16 THE COURT: It is sustained.

17 Q BY MR. BAUMGAERTNER: What is the difference
18 between differential pay and regular pay?

19 A 4 percent and 8 percent, depending on the level
20 of the differential pay.

21 Q Was that a 4 percent or 8 percent increase?

22 A Increase.

23 Q So the government paid more money?

24 A Yes.

25 Q And they paid more money to people working with
26 asbestos?

27 A Yes.

28 Q Now, during the period of time that you were the

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1 industrial hygienist at Long Beach Naval Shipyard, you mentioned
2 that a Captain José Smith was the medical officer. Did you
3 ever write José Smith a memo on June 30th, 1970, speaking about
4 the industrial hygiene program at the Long Beach Naval Ship-
5 yard?

6 A Yes.

7 Q Have you reviewed that memo before your testimony
8 today?

9 A Yes.

10 Q When did you last review that memo?

11 A I looked at it last night.

12 MR. BAUMGAERTNER: I would request, Your Honor, that
13 we mark a memo dated June 30th, 1970, from Sheldon H. Manning
14 to Commander José C. Smith as defendant's next.

15 THE COURT: May be marked as exhibit 37 for identifi-
16 cation.

17 Q BY MR. BAUMGAERTNER: Did you submit that memo
18 to Commander José Smith?

19 A Yes.

20 Q What was the purpose, sir, in submitting that memo
21 to Commander Smith?

22 MR. CANTRELL: May we approach the bench, Your Honor?

23 THE COURT: Yes.

24 (The following proceedings were held
25 at the bench:)

26 MR. CANTRELL: I have an objection to the relevancy of
27 the memo, and I have an objection to the relevancy of this
28 question as to what the purpose of the memo was. The memo

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1 itself is not yet in evidence, and it can be marked.

2 But as I understand the testimony of this witness,
3 it is being offered as to the knowledge that he had, and as
4 such the state of his mind. This is the same matter we got
5 into on Mr. Marr this morning in discussing what the purpose
6 of his writing articles were. It is immaterial what the purpose
7 was.

8 THE COURT: I think it is. I think it's relevant. I
9 don't know what it says, but --

10 MR. CANTRELL: I haven't read it, myself, yet.

11 THE COURT: It would be relevant on what information
12 was available.

13 MR. CANTRELL: It is mostly hearsay.

14 MR. BAUMGAERTNER: Your Honor, this goes to the state
15 of knowledge that the navy had at the time this was written
16 as to the conditions of the industrial hygiene department.

17 MR. CANTRELL: This man can testify to that. He was
18 there. He has been testifying to it.

19 It asked for a raise and asks for a secretary and
20 asked for additional staff. He wants an additional staff in
21 case he should die or be moved away; and he asked to be relieved
22 of some duties which he found onerous to him. Wants a telephone,
23 and he wants to be able to get outsiders to pass through the
24 gate and wants a telephone listing with his title.

25 THE COURT: Doesn't look like too much of it relates
26 to asbestos.

27 MR. BAUMGAERTNER: That is exactly the point I think
28 everybody seems to be missing here. This document indicates

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1 exactly what the navy thought of industrial hygiene. I think
2 it is most probative of the fact that the individual who would
3 be most capable of implementing programs of protecting the
4 health and safety of the workers is given absolutely no
5 assistance, no equipment and no opportunity to fulfill his
6 job. They don't give him a secretary, they don't give him
7 a telephone, he can't publish directives.

8 This is very relevant to the claim of Johns-Manville
9 that insofar as control of the work place, the navy was only
10 interested in production and not the safety of the workers.
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18a-5 1 MR. CANTRELL: That doesn't say that in this memo. This
2 is the pique of a civil servant or as to anybody in a large
3 organization who is not getting the credit he thinks is
4 dignified or he is entitled to according to his office and
5 status. There is nothing about asbestos in here.

6 MR. BAUMGAERTNER: Your Honor, there is quite a bit about
7 asbestos. But I think the asbestos aspect is certainly
8 relevant, and what is even more relevant is the utter disregard
9 the navy gives to Mr. Manning, who they hire as the industrial
10 hygienist but don't allow him to fulfill his function.

11 THE COURT: I think he can testify to that, if that's
12 what this is offered for.

13 MR. CANTRELL: If you want to have him testify about
14 fulfilling his function as to asbestos, otherwise I am going
15 to be up here all afternoon on relevancy of this material.
16 Obviously this whole document has nothing to do with asbestos.

17 THE COURT: You made your objection. He is trying to
18 say something.

19 MR. BAUMGAERTNER: The record will indicate we have already
20 been up here all afternoon. What I am trying to find out --
21 all right, assuming this is hearsay, first of all I can lay
22 a foundation this is a business record of the United States
23 Navy and that this individual authored; and this goes to the
24 knowledge of the navy at the time that it was written, which
25 knowledge is probative on a defense of ours in this case, namely,
26 that the navy's conduct was a superseding intervening cause.

27 THE COURT: Well, he can testify to that. As far as
28 being a business record, it has to be a record of an act,

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1 condition or event made at or about the time.

2 MR. BAUMGAERTNER: He will testify he made this on June
3 30th, 1970.

4 THE COURT: It is more a matter of an opinion or request
5 for something than a record of an act, condition or event.

6 MR. BAUMGAERTNER: It is a record of what he perceived
7 to be the situation at the shipyard at the time.

8 THE COURT: That is a matter of opinion from which he
9 has to testify. A business record exception doesn't include
10 opinions.

11 MR. BAUMGAERTNER: All right. In hopes to move this
12 thing along, what I would like to do is read various excerpts
13 from this. I won't read this business about what went on
14 before.

15 I would like to read what he found when he came,
16 on this second paragraph on this second page.

17 MR. CANTRELL: He has already testified to that. That
18 is nothing but cumulative. He said he had nothing.

19 MR. BAUMGAERTNER: Dick, I can get a shoehorn next time
20 so we can get a word in edgewise.

21 THE COURT: Well, I think it is really admissible. You
22 can ask him what he told him, but it's a history of what this
23 situation was before this memo was written.

24 MR. BAUMGAERTNER: That is what I am trying to get in,
25 Judge. At least we agree on what the issue is.

26 THE COURT: But it is hearsay. He is here. You can
27 ask him about it.

28 MR. BAUMGAERTNER: This memo is not hearsay of the fact

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1 that he told the navy about it.

2 MR. CANTRELL: What difference does it make what he told
3 the navy about it? That has nothing to do with the navy's
4 knowledge of asbestos. That is what this witness was offered
5 for.

6 What you are trying to do now is set up a straw
7 man here and then impeach the navy with it. That is not what
8 he was offered for.

9 THE COURT: It is not a straw man or anything, it is
10 just not admissible. I think you can ask him what he told
11 and what their response was. What he says here is not hearsay.

12 MR. CANTRELL: Correct.

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(The following proceedings were held
in open court in the presence of the
jury:)

Q BY MR. BAUMGAERTNER: Mr. Manning, at the end
of June, 1970, did you attempt to tell medical officer
Jose Smith what your feelings were about the industrial
hygiene office at the Long Beach Naval Shipyard?

A Yes.

Q And did you relate to Mr. Jose Smith at that
time what the condition of the industrial hygiene office was
at the time you came to the shipyard?

A Yes.

Q Is there a term that the Navy uses for an office,
they call billet?

A Yes.

Q Did you comment to Mr. Smith concerning your
predecessors who had served as industrial hygienists?

MR. CANTRELL: Objection. It is irrelevant as to his
comments as to his predecessors.

THE COURT: Overruled.

THE WITNESS: Yes.

Q BY MR. BAUMGAERTNER: Did you try to explain to
Officer Smith what activities your predecessors had engaged
in before you came aboard?

MR. CANTRELL: That would be irrelevant anyway, Your
Honor, because it would call for another hearsay as to this
witness. We have covered that earlier today.

THE COURT: It is overruled.

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1 THE WITNESS: Yes.

2 Q BY MR. BAUMGAERTNER: Did you explain about what
3 Mr. Marr had encountered when he preceded you as an
4 industrial hygienist?

5 A Yes.

6 Q What did you tell him about what Mr. Marr had
7 found when he was the industrial hygienist?

8 MR. CANTRELL: Objection. No foundation.

9 THE COURT: Overruled.

10 It is received only as evidence of what
11 information was given to Smith, not as evidence of the truth.

12 MR. CANTRELL: I would object, then, as to the rele-
13 vancy as to what Mr. Manning told Commander Smith about
14 Mr. Marr.

15 THE COURT: It is overruled.

16 THE WITNESS: The answer is yes.

17 Q BY MR. BAUMGAERTNER: What did you tell him
18 about Bill Marr?

19 A I told him that Bill Marr had done some work in
20 evaluating the asbestos hazard and had been one of the
21 pioneers in alerting the Navy as to the dangers of asbestos
22 and that he had conducted a survey and published the results
23 there of.

24 I believe I said that he had indoctrinated the
25 workers.

26 Q Did you make any comment to Jose Smith as to
27 what the Navy did to Mr. Marr after this information was
28 made available?

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1 MR. CANTRELL: I object to that question as vague and
2 ambiguous, Your Honor.

3 THE COURT: Do you understand the question?

4 THE WITNESS: No, I don't quite understand the question.

5 THE COURT: You may reframe it.

6 MR. BAUMGAERTNER: Certainly.

7 Q After Mr. Marr completed his investigation of
8 asbestos workers, did you tell Jose Smith the type of reward
9 Mr. Marr was given for this work?

10 MR. CANTRELL: That is assuming a fact not in evidence,
11 Your Honor.

12 THE COURT: Sustained.

13 MR. BAUMGAERTNER: Withdraw that -- well, I can't.

14 MR. CANTRELL: No need.

15 Q BY MR. BAUMGAERTNER: After Mr. Marr's report
16 was published, did you advise Jose Smith what became of
17 Mr. Marr?

18 A Yes.

19 Q What did you tell Jose Smith?

20 A I told him that Bill Marr transferred to a job
21 in the Panama Canal Zone.

22 Q Do you know when Mr. Marr transferred?

23 A Yes.

24 Q When was it?

25 A In the fall of '64.

26 MR. CANTRELL: Excuse me.

27 I will object to this question and move to
28 strike the answer. The question now is as to this witness's

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1 knowledge. There is no foundation. It is no, whether this
2 witness told Commander Smith.

3 MR. BAUMGAERTNER: I was just going to ask that
4 question.

5 THE COURT: It is sustained. The answer is ordered
6 stricken.

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1 Q BY MR. BAUMGAERTNER: Did you tell Jose Smith
2 when Bill Marr left to go to Panama?

3 A Yes.

4 Q When was that, sir?

5 A As I recall in the report, I may have said late
6 in '64.

7 Q Did you tell Jose Smith whether or not there
8 was an industrial hygienist from late in '64 up until the
9 time you came aboard in 1967?

10 A Yes.

11 Q What did you tell him in that regard?

12 A There was no industrial hygienist.

13 Q And that is at the Long Beach Naval Shipyard?

14 A Yes.

15 Q Did you tell Jose Smith anything about the
16 dispensary at the Long Beach Naval Shipyard at the time you
17 arrived there?

18 A Yes.

19 Q What did you tell him?

20 A I told him that when I arrived there was no
21 equipment, no literature, no files.

22 Q Did you mention anything to Jose Smith about
23 equipment you did find, when you arrived at the Long Beach
24 Naval Shipyard in March of '67?

25 A Yes.

26 MR. CANTRELL: Objection. The question is assuming a
27 fact not in evidence.

28 The witness had just testified there was no

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19-6 1 equipment and he so advised Commander Smith.

2 THE COURT: Overruled.

3 THE WITNESS: Yes.

4 Q BY MR. BAUMGAERTNER: What did you tell him
5 about that?

6 A I said that there was some equipment that was
7 in storage that was antequated and of no use to me. I
8 think that is in essence what I said.

9 Q Did you tell Mr. Smith about a policy of
10 requiring oral reports to him relative to the industrial
11 hygiene program?

12 MR. CANTRELL: Counsel is leading the witness again,
13 Your Honor.

14 THE COURT: I think it is only to identify the general
15 subject matter. With that restriction, it is overruled.

16 THE WITNESS: Yes.

17 Q BY MR. BAUMGAERTNER: What did you tell
18 Dr. Smith about that policy?

19 A I said in that report that when I first came
20 aboard that Captain Watkins had put a restriction on me
21 that I write no -- I produce no written reports.

22 Q I am sorry, Mr. Manning.

23 During the period of time you were at the ship-
24 yard, did you think it was important as an industrial
25 hygienist that you be able to prepare written reports of
26 your findings?

27 A Yes.

28 Q And did you complain to Jose Smith in 1970 that

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1 you couldn't do this?

2 A No.

3 Q What was your purpose in advising Jose Smith in
4 1970 about the problem with the oral reports?

5 MR. CANTRELL: Objection as assuming a fact not in
6 evidence.

7 THE COURT: Sustained.

8 Q BY MR. BAUMGAERTNER: Mr. Manning, I am going
9 to read directly from your report and ask you what you meant
10 when you said this --

11 MR. CANTRELL: Objection. May we approach the bench,
12 Your Honor?

13 THE COURT: The objection is sustained.

14 MR. CANTRELL: Thank you.

15 Q BY MR. BAUMGAERTNER: Did you tell Captain Smith
16 that all actions that were required of you as an industrial
17 hygienist had to be cleared through the medical officer?

18 MR. CANTRELL: Objection. Counsel is again leading
19 the witness.

20 THE COURT: True. Sustained.

21 Q BY MR. BAUMGAERTNER: Did Captain Watkins allow
22 you to make reports without his approval?

23 A No.

24 Q Did you tell Mr. Smith about this?

25 A Yes.

26 Q What was your purpose in bringing that to
27 Mr. Smith's attention?

28 MR. CANTRELL: Objection. It is irrelevant as to

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19-8 1 the purpose, Your Honor.

2 THE COURT: Overruled.

3 You may answer.

4 THE WITNESS: The purpose was, I think, when I wrote
5 that, I was outlining the history of the industrial hygiene
6 program, and I threw in this to let Dr. Smith know under
7 what conditions I worked prior to his arrival. These were
8 not, I might add -- Dr. Smith did not put that kind of
9 stipulation on me.

10 MR. CANTRELL: Move to strike this answer as not
11 responsive to the question.

12 THE COURT: The portion, "I might add" is ordered
13 stricken.

14 Q BY MR. BAUMGAERTNER: Mr. Manning, did you tell
15 Jose Smith that you felt the industrial hygiene program at
16 the Long Beach Naval Shipyard was being suppressed?

17 MR. CANTRELL: Objection. It is leading and suggestive,
18 Your Honor.

19 THE COURT: Sustained.

20 Q BY MR. BAUMGAERTNER: Did you complain to
21 Captain Smith about the inability of the industrial
22 hygienist to do his job in June of 1970?

23 A Yes.

24 Q Did you tell him why you felt you were being
25 prevented from doing your job in 1970?

26 A In essence, I wasn't getting the support that
27 was necessary to carry out a comprehensive industrial
28 hygiene program. I was asking for that kind of support.

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1 Q Why did you write to Jose Smith setting forth
2 this problem?

3 A The reason I wrote it was I had been trying to
4 upgrade the industrial hygiene program for three years. I
5 did not feel that I was accomplishing that and I had done a
6 lot of talking and there was a lot of verbal things went
7 back and forth and the results were, in my mind, frustrated
8 me, and I decided that the best thing to do was to get this
9 stuff down in writing and get some kind of response. That
10 was the reason I wrote it.

11 Q Did you get a response from Jose Smith after
12 you submitted the memo of 30 June, 1970?

13 A Yes. There was a written response.

14 Q When did you get that response?

15 A Approximately a month later, I believe.

16 Q Did the memo of 30 June, 1970 accurately reflect
17 your feelings concerning your status as the industrial
18 hygienist at the time you wrote it?

19 MR. CANTRELL: Objection. That calls for a conclusion
20 of the witness, Your Honor, and it asks him to conclude on
21 an item that is not admissible in evidence.

22 THE COURT: It is overruled.

23 You may answer it yes or no.

24 THE WITNESS: Yes.

25 Q BY MR. BAUMGAERTNER: Did you make any comment
26 to Jose Smith as to what you felt the function of an
27 industrial hygienist to be in the three years prior to 1970
28 at the Long Beach Naval Shipyard?

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1 A Yes.

2 Q What did you tell him you felt the function of
3 the industrial hygienist was at the Long Beach Naval
4 Shipyard?

5 A I used the term "window dressing."

6 Q What did you mean by that?

7 A My feeling was that the industrial hygienist
8 billet wasn't supported in a fashion that would promote an
9 effective industrial hygiene program. There was a require-
10 ment I think in the regulations in the Navy that there be
11 an industrial hygienist present in the shipyard, and it was
12 my experience from the beginning of what happened that --
13 I was suppressed somewhat. I wasn't allowed to develop a
14 competent industrial hygiene program and therefore my con-
15 clusion was my job was in part window dressing.

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20-1 1 Q In June of 1970, how many people worked in the
2 Long Beach Naval Shipyard?

3 A Oh, it was about 7,500.

4 Q How many industrial hygienists were there?

5 A What was the date?

6 Q June of 1970.

7 A One.

8 Q Did you complain to José Smith about the dispro-
9 portion between the number of workers and the number of
10 industrial hygienists?

11 A Yes.

12 Q Did you complain about the fact that the industrial
13 hygiene program at Long Beach Naval Shipyard was understaffed?

14 MR. CANTRELL: Counsel is leading the witness again,
15 Your Honor.

16 THE COURT: It's sustained.

17 Q BY MR. BAUMGAERTNER: What did you say about the
18 staffing of the Long Beach Naval Shipyard industrial hygiene
19 office?

20 A I said it was understaffed compared to the other
21 shipyards in the navy.

22 Q Did you cite examples from the other shipyards?

23 A Yes.

24 Q And you told José Smith about that?

25 A Yes.

26 Q What other shipyards did you refer to when you
27 told José Smith about the understaffing?

28 MR. CANTRELL: Objection, it's immaterial, Your Honor.

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1 THE COURT: It's overruled.

2 THE WITNESS: I tabulated a list of the number of
3 industrial hygienists that exist -- that were on the payrolls
4 at that time in all the other shipyards.

5 Q BY MR. BAUMGAERTNER: Did you tell him how many
6 were at Pearl Harbor?

7 MR. CANTRELL: Your Honor, counsel is continuing to lead
8 the witness.

9 THE COURT: It's sustained.

10 MR. BAUMGAERTNER: That's a leading question?

11 I am sorry. Not arguing with the court. I am
12 just at my wit's end, I guess, with some of these objections.

13 MR. CANTRELL: Your Honor, I really don't think that
14 remark is called for.

15 THE COURT: The jury is instructed to disregard the
16 comments of both counsel.

17 MR. CANTRELL: Thank you.

18 Q BY MR. BAUMGAERTNER: Mr. Manning, did you recount
19 other naval shipyards and the number of hygienists that were
20 assigned to the other shipyards?

21 A Yes.

22 Q Can you think of any other shipyards besides Long
23 Beach that had less than two industrial hygienists?

24 A Yes.

25 Q How many, sir?

26 A One.

27 Q Where was that?

28 A Philadelphia.

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1 Q Other than Philadelphia, sir, can you think of
2 any other shipyard in the system that you told José Smith
3 about that had less than two industrial hygienists?

4 A No.

5 Q Did you ask José Smith at that time for a raise?
6 A recommendation that you be promoted to the next pay level?

7 MR. CANTRELL: Your Honor, we are still leading the
8 witness as to what he asked, what he recounted to Commander
9 Smith.

10 THE COURT: The objection is sustained.

11 Q BY MR. BAUMGAERTNER: Besides advising José Smith
12 about the status of the industrial hygiene program, did you
13 ask him for anything else?

14 A Yes.

15 Q Please tell the jury everything else that you asked
16 him for.

17 A Well, my memory serves me right, I didn't have
18 a telephone -- exclusive use of a telephone in my office.
19 I asked for that.

20 I did ask that I be promoted from GS-11 to GS-12.
21 I asked I be given a budget. I asked for secretarial help.

22 I asked for an additional industrial hygienist.
23 I think I asked to be allowed to go to the American Conference
24 of Governmental Industrial Hygienists every year.

25 I believe I put in a request for additional equip-
26 ment, and I think I asked that I be properly identified in
27 the telephone book. I asked for permission to grant people
28 privileges to enter the shipyard.

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1 That's essentially, I think, about what I asked
2 for.

3 Q Did you have any of those things that you were
4 asking for at the time you asked for them?

5 A Yes, I had some equipment.

6 Q How about a secretary?

7 A No secretary.

8 Q Did you have your own telephone?

9 A No. I shared -- no, I didn't have my own tele-
10 phone. No.

11 Q Did you ask for those things on more than one
12 occasion?

13 A Yes, verbally.

14 Q During the period of time that you were the
15 industrial hygienist at the Long Beach Naval Shipyard, did
16 you receive some recommendations from the navy concerning how
17 asbestos insulation products were to be handled by shipyard
18 workers?

19 A Yes.

20 Q When was the first time you recall such a directive
21 from the navy?

22 MR. CANTRELL: Is "recommendation" and "directive" used
23 in the same connotation, Your Honor? Otherwise, the question
24 is assuming a fact not in evidence. I attach different conno-
25 tations to the words.

26 THE COURT: Would you like to clarify it.

27 MR. BAUMGAERTNER: Yes.

28 Q When you got your recommendation from the navy,

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did you consider it to be a directive?

MR. CANTRELL: Well, this again calls for a conclusion of the witness, Your Honor.

THE COURT: It's overruled.

THE WITNESS: No, it wasn't a directive.

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1 Q BY MR. BAUMGAERTNER: When did the recommendation
2 reach you at Long Beach?

3 A When I arrived at the shipyard there were instruc-
4 tions in place in the shipyard safety manual. There were also
5 some instructions that originated with the Bureau of Medicine
6 and Surgery in Washington, and these were in effect at the
7 time I came aboard the shipyard.

8 Q Did you note during the first three years that
9 you were at the shipyard whether or not these recommendations
10 contained in the shipyard safety manual were being followed
11 by the workers?

12 A Some were not.

13 Q Which ones weren't?

14 A It was my observation that the shipyard workers
15 were not wearing their respirators at all times.

16 Q Anything else that you can think of?

17 MR. CANTRELL: Your Honor, I am going to move to strike
18 this answer as assuming a fact not in evidence, and to object
19 to the previous question. The witness is being asked to
20 describe which recommendations were not being followed, and
21 there is no evidence as yet as to what the recommendations
22 were.

23 MR. BAUMGAERTNER: Your Honor, the testimony is that
24 there were recommendations about handling asbestos.

25 MR. CANTRELL: Well, what the recommendations may have
26 been, though, is what concerns me.

27 THE COURT: Well, the last answer assumes that there
28 is a rule about respirators, which isn't in evidence.

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1 MR. BAUMGAERTNER: All right.

2 MR. CANTRELL: Thank you.

3 THE COURT: So the last answer is ordered stricken.

4 Q BY MR. BAUMGAERTNER: Was there a rule from BuMeds
5 about wearing respirators in working around asbestos?

6 MR. CANTRELL: Your Honor, if there are some rules, now,
7 this is a question as to a rule.

8 Well, the way the question is phrased, I will defer
9 until there is an answer to it.

10 MR. BAUMGAERTNER: I will be happy to clean up the
11 question, Counsel. Let me withdraw it and ask a better one.

12 Q Is there a bureau of the navy that's responsible
13 for medical aspects?

14 A There is a Bureau of Medicine and Surgery that's
15 responsible for the delivery of medical service to the navy.
16 Yes.

17 Q Is that abbreviated BuMeds?

18 A Yes.

19 Q Did BuMeds suggest some guidelines or rules or
20 regulations or safety orders pertaining to working with
21 asbestos, that were in effect at the time you came to the
22 shipyard in 1967?

23 MR. CANTRELL: Objection. The question is compound and
24 vague in that regard. It asks if there were some recommen-
25 dations and if they were by BuMed, and if they were in effect
26 at the time he got there.

27 THE COURT: The objection is overruled.

28 If the answer is yes, it can be clarified.

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1 THE WITNESS: Yes.

2 Q BY MR. BAUMGAERTNER: What were they?

3 MR. CANTRELL: Not the best evidence, Your Honor. The
4 best evidence would be the regs themselves.

5 THE COURT: It's sustained if they are available.

6 MR. BAUMGAERTNER: I don't have them.

7 THE COURT: You may ask the witness.

8 MR. BAUMGAERTNER: Do you have them?

9 MR. CANTRELL: I have never seen them. If you have a
10 set, I have no objection to your presenting to him and iden-
11 tifying them.

12 MR. BAUMGAERTNER: I don't have a set.

13 THE COURT: You can ask the witness. If it can't be
14 located, perhaps he can testify.

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21-1 1 Q BY MR. BAUMGAERTNER: Do you have a copy of those,
2 Mr. Manning?

3 A I can't say for certain if I have a copy. There
4 is a good possibility I do.

5 Q Where would they be located?

6 A In my home.

7 Q Do you recall the substance of them at this time?

8 A I say yes in part.

9 Q Was there a requirement that respirators be worn
10 when working with insulation?

11 MR. CANTRELL: Objection. Counsel is leading the
12 witness now.

13 THE COURT: It may be yes or no as to whether it was or
14 wasn't, so it is overruled.

15 THE WITNESS: Yes.

16 Q BY MR. BAUMGAERTNER: Were there any other
17 policies -- I am sorry -- any other regulations that you
18 recall besides wearing respirators?

19 A Yes.

20 Q What other ones can you recall, Mr. Manning?

21 A There was a recommendation that exhaust
22 ventilation be used to try to control the dust hazard.

23 There was some recommendation that vacuum
24 method be used to clean up the material.

25 There was recommendations that wet method be
26 used to control --

27 Q Let me stop you right there. What do you mean
28 when you say "wet methods"?

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21-2

1 A Well, in some instances dusty materials can be
2 wetted down and soaked before they are removed or whatever.
3 That is to be done, and this reduces the dustiness of the
4 operation.

5 Q Anything else that you can think of besides
6 respirators, exhaust systems, vacuums and wet methods?

7 A My memory is, you know, a little faulty, and
8 that was one of the first pieces of material I saw, and I
9 am very vague about when things come in here, but I would
10 say that covered it when I first -- those first regulations
11 I saw.

12 Q Now, from 1967 up until 1970 as a time reference,
13 did you observe that respirators were being worn by the
14 insulators while they were working inside ship fire rooms
15 and engine rooms?

16 MR. CANTRELL: Perhaps we should have some foundation
17 as to whether he was there to observe them.

18 MR. BAUMGAERTNER: Withdraw the question.

19 Q Did you ever go aboard ship during the years '67
20 and '70 to observe the work practices being conducted in the
21 engine room and fire room?

22 A Yes.

23 Q Did you ever see insulators installing insulation
24 in engine rooms and fire rooms during that period of time?

25 A Yes.

26 Q At the time you watched the insulators working
27 applying or removing insulation, did you also see other
28 trades working in the engine room?

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21-3

1 A Yes.

2 Q Did you ever see machinists working in the engine
3 rooms and fire rooms during that period of time?

4 A Yes.

5 Q When the insulators were also working?

6 A Yes.

7 Q Directing your attention to that period of time,
8 did you see the insulators wearing respirators?

9 A Yes.

10 Q And did you see the insulators not wearing
11 respirators during that period of time?

12 A Yes.

13 Q Approximately how often were you aboard ship
14 observing these practices?

15 A Oh, an average during the period I worked there,
16 I would be aboard ship and this is an approximation, at least
17 three times a week or more.

18 Q During the periods you were aboard ship and
19 observed insulators, what percentage of the time would the
20 insulators be wearing respirators as opposed to not wearing
21 respirators?

22 A I couldn't make an accurate guess on that.

23 Q Do you have an estimate, sir?

24 A Purely as a guess. Based upon observation, I
25 would say that they possibly wore them 25 percent of the
26 time.

27 Q With respect to vacuum cleaners, did you see
28 the insulators regularly utilizing vacuum cleaners to clean

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1 up the asbestos from inside the engine and fire rooms?

2 A Yes.

3 Q With respect to wet method, did you see the
4 insulators using wet methods aboard ship?

5 A No.

6 Q With respect to utilizing the vacuum cleaners
7 you mentioned earlier, approximately what percentage of the
8 time would you say you would see insulators utilizing
9 vacuum cleaners from '67 to '70?

10 A I would say again maybe 25 percent of the time.

11 Q Did you ever see insulators using an air hose
12 to sweep out an engine room, instead of sucking they were
13 blowing?

14 A I have seen air hoses used to blow down engine
15 rooms. I can't verify they were pipe coverers doing it.

16 Q Was this a recommended practice?

17 A No.

18 Q Mr. Manning, after 1970, was there a recom-
19 mendation by the Navy by utilizing coveralls in connection
20 with asbestos insulation work?

21 A Yes.

22 Q When did that recommendation come out?

23 A There was an instruction that came out, I believe
24 it was what we called NAVAC, Naval Facilities Command, that
25 recommended that shipyard workers exposed to asbestos be
26 provided with coveralls -- fresh coveralls daily. I believe
27 the recommendation included that they be given separate
28 lockers and that these coveralls be laundered daily. I

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1 think that came down in the summer of 1969.

2 Q To your knowledge, based upon your experience
3 at the shipyard, was there any difficulty in implementing
4 that order?

5 A Yes.

6 Q What was the reason for it?

7 A Shipyard command felt that was too expensive.

8 Q Who were the people when you say "shipyard
9 command," who were the people who doubted or were questioning
10 the expense?

11 A I had knowledge that the production officer,
12 Captain Chapman, and the group superintendent, Frank Nease,
13 opposed it on the ground it was not essential and was
14 expensive.

15 Q Who is Frank Nease?

16 A Frank Nease was the group superintendent of
17 930 Shop.

18 Q What is the 930 Shop?

19 A Well, that shop included machinists, both marine
20 and the other type, it included pipe fitters and on down the
21 line, the pipe coverers and insulators.

22 Q Was this recommendation that coveralls be
23 utilized finally implemented?

24 A Yes.

25 Q When was it implemented?

26 A I think that came about in 1971.

27 Q Roughly, how long between the time it came down
28 and the time it was implemented elapsed to your knowledge?

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A At least two years.

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THE COURT: We'll stop now for the afternoon recess
of 15 minutes.

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Remember the admonition.

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(Recess.)

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1 THE COURT: Mr. Baumgaertner, you may continue.

2 Q BY MR. BAUMGAERTNER: Mr. Manning, during your
3 tenure at the Long Beach Naval Shipyard, did you make recom-
4 mendations concerning safe practices to the workers?

5 MR. CANTRELL: I am going to object to the question as
6 being overly broad and vague and ambiguous, both as to safe
7 practices and to what is encompassed in the word "workers."

8 THE COURT: Well, it's overruled. If the answer is yes,
9 it can be clarified as to whom and what.

10 MR. CANTRELL: Thank you.

11 THE WITNESS: Yes.

12 Q BY MR. BAUMGAERTNER: Was that a job function of
13 the industrial hygienist as you understood it?

14 A Yes.

15 Q Did you make recommendations concerning safe
16 practices to shipyard workers working in the vicinity of
17 asbestos insulation products?

18 I can tell from the look, I'd better reframe the
19 question.

20 MR. CANTRELL: He just took his glasses off. You want
21 to look again?

22 MR. BAUMGAERTNER: All right.

23 Q Did you make recommendations concerning safe
24 procedures that asbestos workers should utilize at the shipyard?

25 A Yes.

26 Q Did you have the authority to enforce the safe
27 practice recommendations you made?

28 A No.

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22-2 1 Q Concerning safe practices with respect to asbestos
2 products, who in the shipyard had the authority to enforce
3 the safe practices?

4 A Workers' foreman was responsible for seeing that
5 the workers performed their work in a safe manner.

6 Q Was there a procedure in effect at the shipyard
7 whereby somebody could be disciplined if they failed to utilize
8 safe practices?

9 A Yes.

10 Q Did you have the authority to discipline anybody
11 who did not utilize safe practices?

12 A No.

13 Q Who had that authority?

14 A The foreman.

15 Q When you say the foreman, are you referring to
16 the head of the shop?

17 A No.

18 Q Who is the foreman?

19 A The foreman is a man directly above the workmen.
20 The man who assigns the work, signs the timecards, sees that
21 the work is performed and the man -- the supervisor directly
22 over the workmen. That's the first line supervisor. They
23 are the foremen.

24 Q During the period of time that you were at the
25 shipyard, did you ever learn of an instance where a first line
26 supervisor disciplined a worker for failing to wear a respirator
27 while working with asbestos?

28 MR. CANTRELL: Objection. May we approach the bench

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1 on this, Your Honor.

2 THE COURT: Yes.

3 (The following proceedings were held
4 at the bench:)

5 MR. CANTRELL: Whether he learned of it or not would
6 be irrelevant. If he did learn of it, it is hearsay; and if
7 he answers he did not learn of it, then counsel will argue
8 the negative inference that they were lax in their enforce-
9 ment procedures. So that's the time an answer should not be
10 permitted.

11 THE COURT: I think you would have to prove somebody
12 had the duty to report to him.

13 MR. CANTRELL: That's correct.

14 THE COURT: Otherwise I don't think it is admissible.

15 MR. BAUMGAERTNER: All right.

16 MR. McCARTHY: Your Honor, can you give us an estimate
17 as to cross-examination?

18 MR. CANTRELL: It is not long yet. I hope we can get
19 him in.

20 MR. McCARTHY: We would have to go past 4 o'clock.

21 MR. CANTRELL: How long is your direct?

22 MR. McCARTHY: Fifteen or twenty minutes.

23 MR. BAUMGAERTNER: I will finish up with this witness.

24 THE COURT: All right.

25 (The following proceedings were held in
26 open court in the presence of the jury:)

27 Q BY MR. BAUMGAERTNER: Were you as the industrial
28 hygienist to be notified in the event of any disciplinary

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1 procedure pertaining to unsafe practices?

2 A No.

3 Q So it was not your responsibility to follow up
4 to determine if there was any enforcement in terms of disci-
5 pline if an unsafe practice was encountered?

6 A No.

7 MR. BAUMGAERTNER: I have no further questions.

8 THE COURT: Mr. Cantrell, you may examine.

9 MR. CANTRELL: Thank you, Your Honor.

10
11 CROSS-EXAMINATION

12 BY MR. CANTRELL:

13 Q I gather from your complaint to Commander Smith
14 and from facts of a delay in getting the coveralls, there were
15 economic considerations in the implementation of the industrial
16 hygiene program at the shipyards; is that a fair statement?

17 A Yes.

18 Q Is that any different, or is there an economic
19 problem in obtaining equipment or telephones or coveralls
20 around the shipyards in general?

21 Is there an economic problem as to the procedures
22 they have to go through to get it and determine whether it
23 is economically practical or not?

24 A Yes. Economics enters in it.

25 Q You mentioned some recommendations from the navy,
26 and then you talked about some requirements or some directives.
27 Is it correct that what you have spoken about insofar as equip-
28 ment were recommendations, there were no directives that certain

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1 things must be done insofar as the safety around asbestos is
2 concerned?

3 A I don't quite understand the question.

4 Q Well, the question is, you have talked about some
5 safety procedures to be used around, or when using asbestos.
6 Were those recommendations, not directives?

7 A Recommendations, is accurate.

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1 Q Your complaint to Commander Smith in June of 1970,
2 there were no direct complaints or references to asbestos or
3 its use or its problem in that complaint, were there?

4 A No.

5 Q You indicated you participated in some meetings
6 after 1970 or around June of 1971 with some first line
7 supervisors or foremen where they were given indoctrination
8 about safety procedures with asbestos. Do you recall that
9 testimony?

10 A Yes.

11 Q By "participate," can you tell us what you did?

12 A My part in it was generally to point out the
13 health aspects of exposure to asbestos. I went over the
14 work that Dr. Selikoff had published. I pointed out the
15 relationship of smoking with asbestos disease. I informed
16 them about the occurrence of cancer and the increased
17 incidence of cancer among asbestos-exposed workers.

18 Q How many meetings did you personally attend
19 with the supervisors, the foremen?

20 A My estimate would be about ten.

21 Q And those were all conducted in the summer of
22 1971?

23 A Yes.

24 Q Were there ever any follow-ups on those?

25 A Those were the only sessions we had with the
26 foremen.

27 Q Was there an oral presentation?

28 A Yes.

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3-2 1 Q Were there any written materials as far as you
2 can recall or were all of the meetings oral?

3 A These meetings were in most part oral. I on
4 occasion used flip sheets. I think on one occasion I had
5 some slides to present.

6 Q But there was no hand outs given to the super-
7 visors?

8 A No.

9 Q You said you were a member -- is it ACGIH?

10 A Yes.

11 Q Was this a voluntary organization?

12 A In a sense it was voluntary to join it.

13 Q It has no official government sanction, then,
14 does it?

15 A No official government sanction, no.

16 Q In the recommendations they make as to
17 threshold limit values are recommendations that have no
18 official government authority either, do they?

19 A That is correct. It is a professional society.

20 Q Now, you indicated that a threshold limit value
21 was recommended on the various substances by the
22 association; is that correct?

23 A That is correct.

24 Q Did the association then represent that that was
25 below that exposure level, it was safe or below that
26 exposure level, it was permitted?

27 A The philosophy behind the threshold limit value
28 is if a workman worked in an environment that was consistently

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23-3

1 below these levels, he was not likely to experience
2 occupational disease in a working lifetime.

3 Q Was the threshold limit value recommended at
4 that time of 5,000,000 particles based upon the Fleischer-
5 Drinker report, or do you know?

6 A Yes.

7 Q Was it?

8 A Yes.

9 Q That is no longer the threshold limit value for
10 asbestos, is it?

11 A No.

12 Q Has that been reduced or increased?

13 A It has been reduced.

14 Q What was it reduced to?

15 A I am no longer employed as an industrial
16 hygienist, but the last I heard it was reduced to one fiber
17 per cc.

18 Q Was this a governmental control or was this a
19 recommendation of an informal organization?

20 A I think that is an OSHA standard.

21 Q What is OSHA?

22 A Occupational Safety and Health Authority, I
23 believe.

24 Q That is a governmental agency?

25 A Yes.

26 MR. CANTRELL: I have no other questions, Your Honor.

27 MR. BAUMGAERTNER: Just a few, Your Honor.
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23-4

REDIRECT-EXAMINATION

1 BY MR. BAUMGAERTNER:

2 Q Mr. Manning, do you know when OSHA came into
3 effect?
4

5 THE COURT: You mean the organization or this par-
6 ticular --

7 MR. BAUMGAERTNER: The organization.

8 MR. CANTRELL: If you wish, counsel, I will stipulate
9 it was 1972.

10 MR. BAUMGAERTNER: I will accept the stipulation.

11 Q Prior to 1972, when OSHA came into effect, do
12 you know of any governmental organization that suggested
13 acceptable threshold limit values for asbestos fiber?

14 A Yes.

15 Q What was that, sir?

16 A Pennsylvania Department of Health, Bureau of
17 Medicine and Surgery, among others.

18 Q Did the Pennsylvania Department of Medicine and
19 Health have jurisdiction over the Long Beach Naval Shipyard?

20 A No.

21 Q Do you know any other governmental organization
22 that had authority over the Long Beach Naval Shipyard with
23 respect to asbestos fiber, TLV's, prior to 1972?

24 A Bureau of Medicine and Surgery had the
25 responsibility to make recommendations to the shipyard on
26 all health matters.

27 Q Well, with respect to asbestos particles --

28 A Yes.

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1 Q But did Bu. Meds. recommend a TLV with respect
2 to asbestos fibers?

3 A Yes.

4 Q And prior to 1972, do you know what it was?

5 A It was 5,000,000 particles per cubic foot of air.

6 Q When OSHA came into effect in 1972, do you know
7 what the first threshold limit value for asbestos fibers was?

8 A Yes.

9 Q What was it?

10 A It was 12 fibers per cubic centimeter of air.

11 Q The old one was 5,000,000 particles per cubic
12 foot?

13 A Yes.

14 Q And the new one is 12,000,000 --

15 A 12 greater than 5 microns in length per cc of air.

16 Q Is there a way that anyone can really correlate
17 particles to fibers?

18 A Not really.

19 Q So it is a different standard?

20 A Yes.

21 Q Did you know of a J. C. Dolan, Jr., Deputy
22 Command, Program Director of the shipyard monitoring and
23 management?

24 A I believe that was Admiral Dolan who was a former
25 shipyard commander and moved to that post.

26 Q Did you ever receive from Admiral Dolan any
27 instructions pertaining to asbestos exposure hazard?

28 MR. CANTRELL: Is counsel reopening direct?

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1 MR. BAUMGAERTNER: I am asking a question. I am sorry,
2 no, I am not.

3 MR. CANTRELL: If you are not reopening direct, I don't
4 believe this was covered in cross-examination.

5 MR. BAUMGAERTNER: Without belaboring the point, it
6 goes to a question counsel asked about certain recommendations.

7 THE COURT: It is overruled.

8 Q BY MR. BAUMGAERTNER: Did you receive from
9 Admiral Dolan instructions relating to asbestos exposure
10 hazards?

11 A I don't recall Admiral Dolan as being the author
12 of the instructions, specifically.
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24-1 1 MR. BAUMGAERTNER: May I show this document to counsel
2 and the witness and ask if it refreshes his recollection.

3 (Mr. Baumgaertner handed to
4 Mr. Cantrell.)

5 MR. BAUMGAERTNER: While counsel is looking at that,
6 I have a couple of other questions.

7 MR. CANTRELL: Well, excuse me, Your Honor. I would
8 prefer -- I have been handed a single-spaced, seven-page
9 document; and I'd really rather listen to the questions than
10 have to review that. So I can't do both.

11 MR. BAUMGAERTNER: May I approach the witness, Your Honor?

12 THE COURT: Yes.

13 Q BY MR. BAUMGAERTNER: Mr. Manning, I am showing
14 you a document which purports to be from NAVSHIPS, Instruction
15 5100.26. Do you recognize that document?

16 A Yes, I have seen this document.

17 Q Does that document relate to control of asbestos
18 hazards at the shipyard?

19 A Yes.

20 Q Did that document come to you on or about
21 9 February 1971?

22 A Yes.

23 Q Did you attempt to implement recommendations carried
24 out in that document at the Long Beach Naval Shipyard?

25 A I was part of that process.

26 Q In this document were you aware that there were
27 certain requirements for the industrial hygienist to perform?

28 MR. CANTRELL: I am going to object to that, Your Honor.

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24-2 1 The document speaks for itself, and whether this witness is
2 aware of it, I don't see -- I haven't had the opportunity to
3 examine all seven pages.

4 THE COURT: The objection is sustained.

5 Q BY MR. BAUMGAERTNER: Mr. Manning, do you have
6 a recollection of suggesting to the shipyard workers at Long
7 Beach Naval Shipyard after February of 1971 that the recommenda-
8 tions called for in NAVSHIPS Instruction 5100.26 be implemented?

9 A Yes.

10 Q To your knowledge were the instructions called
11 for implemented?

12 A In part.

13 Q When were they implemented, in part?

14 A These instructions are in effect, recommendations
15 to the shipyard commander who has the same authority as a
16 captain aboard a ship; and after some deliberation, why, these --
17 in the shipyard among shipyard personnel, the procedure was
18 to write up shipyard instructions that either accepted or
19 rejected some of these proposals, and incorporate those
20 instructions in the shipyard safety manual.

21 Q When was that done, sir, if at all?

22 A I believe that it was done soon after this, incor-
23 porated in the shipyard manual within a year after this was
24 written.

25 Q So by February 1972?

26 A Yes.

27 Q Do you know who had the responsibility for enforcing
28 the instructions?

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1 A Again, it would be the first line supervisor, the
2 foreman.

3 Q Did you, yourself --

4 A There were certain parts, as you say, that I see
5 that the respirator is supposed to be approved by the medical
6 department. I did do some work in approving disposable
7 respirators which I pushed, and made some effort to see that
8 respirators were tested when they became available and had
9 a good deal of input as to which one was accepted.

10 Q When did you do that, Mr. Manning?

11 A It was early, I would say along around 1971-'72
12 when disposable respirators became available.

13 Q Do you recall, Mr. Manning, that at the time these
14 instructions came out from NAVSHIPS, that meetings were held
15 with all the shops to explain the instructions pertaining to
16 asbestos control work?

17 MR. CANTRELL: Objection. May we approach the bench,
18 Your Honor?

19 THE COURT: It's sustained. It assumes a fact not in
20 evidence.

21 MR. CANTRELL: Well, I'd like to discuss another topic
22 if I may, as well, Your Honor.

23 THE COURT: All right.

24 (The following proceedings were held
25 at the bench:)

26 MR. CANTRELL: This is the second lengthy document that
27 has been produced today for the first time, and I received
28 not even 24 hours' notice about it. The court rule has been

PRODUCED
JM - 83

24-4
1 violated again, and I am going to object to any further
2 questioning on this document. I can't even have time to see
3 if this is on the list of exhibits the defendant submitted.

4 I have had no notice that this document was going
5 to be produced today. Further, this is obviously reopening
6 direct, and I inquired earlier about that.

7 MR. BAUMGAERTNER: Counsel inquired into what instructions
8 were given, what recommendations were given to this witness;
9 and he also objected when I attempted to ask this witness about
10 this very thing regarding asbestos. I am just laying a
11 foundation that these instructions were available in February
12 of 1971.

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JM - 83

1 It set out all sorts of safe practices which the
2 navy said should have been carried out and in which Mr. Lofstrom
3 and Mr. Knight and Pavelec and all those other fellow who
4 testified so far said they never heard of, never saw
5 implemented. That's all I want to do.

6 I will be happy to have the document marked and
7 offered into evidence at the appropriate time. I don't want
8 to go into it in any great detail at this point.

9 MR. CANTRELL: Well, the problem is that I asked if
10 direct was being reopened, and you said no. The only question
11 I asked at all was whether those were recommendations rather
12 than directives, and that is all.

13 THE COURT: It goes beyond the cross-examination.

14 MR. CANTRELL: Plus this again, I have not been advised
15 of this document. I have not read it. I can't make an
16 intelligent objection, and I didn't -- you are supposed to
17 notify me so I can prepare my case, 48 hours ahead. Two court
18 days on the rule asked by defense.

19 THE COURT: You mean exhibits are supposed to be?

20 MR. CANTRELL: Yes, sir.

21 THE COURT: It certainly hasn't been followed in this
22 case.

23 MR. CANTRELL: We have been advising them in advance
24 what exhibits.

25 THE COURT: Some pictures in this case, so far as I can
26 tell, were never seen.

27 MR. CANTRELL: They were specifically advised they would
28 be used and which witness would use them 48 hours ahead, and

PRODUCED
JM - 83

1 they are in our list.

2 I haven't had time to look at the exhibit list
3 to see if it is there, and there was no word at all we would
4 receive any document in evidence as far as Mr. Marr's testimony.

5 MR. McCARTHY: In open court you said the best evidence
6 rule -- you said, "If the document is here, I have no objection
7 to putting the document in evidence," in open court.

8 We went through our notes to see if it was avail-
9 able. You made reference in open court if there was a document,
10 "I have no objection to it." That is when we found this.
11 You made that comment in front of the jury.

12 MR. CANTRELL: Mr. McCarthy, I am asking you to abide
13 by the rules you have been enforcing on me for three weeks.

14 THE COURT: That may be marked for identification. I
15 will consider whether it is admissible after you have had a
16 chance to review it. It may be marked as exhibit 38 for iden-
17 tification.

18 MR. CANTRELL: Thank you, Your Honor.

19 MR. BAUMGAERTNER: I have a lot of questions, but I will
20 settle if I can just get the thing into evidence.

21 MR. CANTRELL: Are we going to talk about that later?

22 THE COURT: I think the foundation is sufficient if it's
23 otherwise admissible.

24 MR. CANTRELL: That's correct.

25 MR. McCARTHY: May we have a time estimate?

26 MR. CANTRELL: I adhered to my time estimate. You have
27 blown it. I don't have a time estimate until you get through
28 the redirect.

PRODUCED
JM - 83

24-7 1 MR. McCARTHY: My only concern is the witness outside
2 cannot come back tomorrow and cannot come back Thursday.

3 MR. CANTRELL: Counsel, all you have to do is get your
4 man to stop asking questions of this witness and get your other
5 one on the stand.

6 MR. McCARTHY: Can the jury stay till 4:15 or 4:30?

7 THE COURT: I don't know about 4:30. You know, it is
8 pretty hard on the reporters.

9 MR. McCARTHY: Can I be excused for just a minute?

10 THE COURT: You can start with him if you are through
11 with this witness.

12 MR. McCARTHY: Well, I would like to start it and complete
13 it in one day, Your Honor. It is just a short witness.

14 THE COURT: Well, we ought to use the time.

15 MR. McCARTHY: Okay.

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PRODUCED
JM - 83

25-1 1 (The following proceedings were held
2 in open court in the presence of the
3 jury:)

4 MR. BAUMGAERTNER: Your Honor, I request that the clerk
5 mark as defendant's next exhibit, No. 38, the NAVSHIPS
6 document.

7 THE COURT: It may be so marked for identification.

8 MR. BAUMGAERTNER: I provide it to counsel to review at
9 this point.

10 I have no further questions of Mr. Manning.

11 THE COURT: Any further questions, Mr. Cantrell?

12 MR. CANTRELL: No, Your Honor.

13 THE COURT: May the witness be excused?

14 MR. BAUMGAERTNER: Yes, Your Honor.

15 THE COURT: Thank you, Mr. Manning. You are excused
16 from further attendance at this trial.

17 MR. BAUMGAERTNER: Your Honor, as a matter of house-
18 keeping, could I have the Jose Smith memo of 6-30-1970 marked
19 as No. 37?

20 THE COURT: I think it was ordered marked as Exhibit 37
21 for identification.

22 MR. BAUMGAERTNER: Thank you.

23 At this time I offer it into evidence.

24 MR. CANTRELL: Well, we have previously objected to
25 that, Your Honor.

26 It has been considered.

27 THE COURT: I think the objection was sustained. If
28 you wish to argue it further, I will hear further argument.

PRODUCED

III - 22

Manning 8/3/81

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IN REPLY REFER TO:
Ms. Jenkins
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July 18, 1984

Ms. Nita Palochko
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Post Office Box 5723
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Re: Government Litigation

Dear Nita:

Pursuant to your request, I am enclosing a copy of Sheldon Manning's deposition of August 3, 1981. If I can be of further assistance, please do not hesitate to contact me.

Very truly yours,

Dee-Ann

Dee-Ann Jenkins
Legal Assistant
HAIGHT, DICKSON, BROWN &
BONESTEEL

DAJ:slw
Enclosure

MT-PWHD-012977

Manning

8/3/81

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DOCUMENT NUMBER: SHM00001 WITNESS: MANNING, SH LBNS
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SHELDON H. MANNING
LONG BEACH NAVAL SHIPYARD (LBNS)
AUGUST 3, 1981
LONG BEACH, CALIFORNIA
VOLUME 1

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DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0001 STARTING PAGE: 0004 ENDING PAGE: 0007
TOPIC: MANNING,SH/PERS
ONAL HISTORY/PR
IOR DEPOSITIONS

(EXAMINATION BY MARDEN,SM FOR JMC.) Manning,SH has gone through several depositions and is aware of ground rules. Was born July 28, 1919. Has a Bachelor of Science in Commercial Chemistry from Penn State University; received in 1943. Presently resides at 15403 Piuma, Norwalk, California. The last Sunday in July 1981 went over some "things", his log, to refresh his memory. Yesterday for 30 minutes, discussed with Rosenberg,G points from previous testimony, such as what Manning's,SH duties were at the Long Beach Naval Shipyard (LBNS), what other things Manning,SH did besides current things of interest, basically just a general discussion. Rosenberg,G was not attempting to change Manning's,SH testimony. Manning,SH had not spoken with anyone, other than Rosenberg,G and Steinberg,R over the past three months about his testimony. Other than meeting with Rosenberg,G for thirty minutes, Manning,SH briefly spoke with Rosenberg,G when Manning,SH ran into him at Steinberg's,R office, but only discussed that Manning,SH was going to testify. Neither of these conversations caused Manning,SH to change his testimony.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0002 STARTING PAGE: 0007 ENDING PAGE: 0009
TOPIC: EMPLOYMENT
HISTORY

Manning,SH worked as an industrial hygienist at the Long Beach Naval Shipyard (LBNS) from March 7, 1967 to February 25, 1974. In October 1973, Manning,R was hired as the head of the industrial hygiene branch called the Naval Occupational Health Center. Prior to that, the Long Beach Medical Health Department was transferred administratively into the Naval Regional Medical Center (NRMC), which is located at the Navy Hospital in "Carson". Manning,SH had the same duties, just the administration end was transferred to the other entity. Prior to working for Long Beach Naval Shipyard (LBNS), Manning,SH worked as an industrial hygienist for the Pennsylvania Department of Health of the Williamsport, Pennsylvania office from September 1961 to February 1967. Received special training in the form of a series of courses sponsored by the United States Public Health Service (USPHS). The courses were held in Pittsburgh and also in Harrisburg. Prior to working for the Pennsylvania Department of Health, Manning,SH had never been employed as an industrial hygienist or had any special training in that field.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0003 STARTING PAGE: 0009 ENDING PAGE: 0013
TOPIC: EMPLOYMENT/LONG
BEACH NAVAL
SHIPYARD (LBNS)

Manning,SH was interviewed for the industrial hygienist position in Philadelphia. Does not recall any conversations about what staff or equipment he would get. Manning's,SH duties involved recognition and evaluation of, and recommendations for, control of industrial health hazards, radiation control and "any other duties as may be assigned". When Manning,SH arrived at Long Beach Naval Shipyard (LBNS) in 1967 there were no other industrial hygienists present. Marr,W who was the last industrial hygienist there, left in the fall of 1963. No one was in the position of industrial hygienist between 1963 and 1967. Manning,SH had an office when he arrived at Long Beach Naval Shipyard (LBNS), but no files or back issues of technical journals were there. Was able to use books of a technical nature from the shipyard library, a few being: Petty's volume of Industrial Hygiene Practice, Industrial Environmental Evaluation and Control published by the United States Public Health Service (USPHS) and Sax volume on Industrial Toxicology. The shipyard library had no back issues of industrial hygiene technical journals, although those journals were important to the performance of the job.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0004 STARTING PAGE: 0013 ENDING PAGE: 0016
TOPIC: DUST SAMPLING
EQUIPMENT

When Manning,SH arrived for employment at Long Beach Naval Shipyard (LBNS) in March 1967 he had no equipment with which to take dust samples. Finally he received all equipment needed in June 1968 which consisted of a microscope capable of 100 power and 950 power; air pumps; midget, small impinger, midget impinger; dust counting slides and covers, a whipple disc, a stage micrometer, various flasks, a gas burner, membrane filters, and distilled water. Manning,SH performed dust studies over a period of time as frequently as he found time. Performed enough dust studies in a nine-month period to write a report which fulfilled his duty with respect to evaluation of the hazard. Marr,W had written a report also and Manning,SH found things parallel to what Marr,W found. Marr's,W report was published in the Industrial Hygiene Journal in 1964. Manning,SH acquired a copy of Marr's,W report from the California Department of Health soon after arriving at the Long Beach Naval Shipyard (LBNS). Kreiger,C, who was safety superintendent, brought up the subject of the report, informing Manning,SH that Marr,W had published the report without permission from the Long Beach Naval Shipyard (LBNS) command, as required by NAVY regulations. Manning,SH took dust studies of two types of dust: dust that contained asbestos fibers, and dust from sandblasting. Eight-five percent of Manning's,SH dust studies were concerned with asbestos dust, while fifteen percent was involved with other dusts. When Manning,SH arrived at Long Beach Naval Shipyard (LBNS) in 1967 he was the only member of the Industrial Hygiene Department.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0005 STARTING PAGE: 0016 ENDING PAGE: 0016
TOPIC: WRITTEN REPORTS

Manning,SH reported to a medical officer, initially Watkins,G. Watkins,G said there would be no written reports, and Manning,SH thought this was because Watkins,G was nervous about written material getting outside the Long Beach Naval Shipyard (LBNS) and embarrassing Watkins,G. Watkins,G made Manning,SH read the regulation, that required prior approval for any speeches or written reports made outside the Long Beach Naval Shipyard (LBNS), in front of Watkins,G and the administrative officer. Manning,SH never published anything.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0006 STARTING PAGE: 0016 ENDING PAGE: 0018
TOPIC: WET DOWN
PROCEDURES

When Manning,SH arrived at Long Beach Naval Shipyard (LBNS) there were no wet down procedures being used when employees were working with asbestos products. The pad shop, where insulation pads were fabricated, had wet down equipment; but Manning,SH noticed it was

not being used and immediately straightened the situation out. The equipment available for wet down procedures was a hose connected to a water pipe and valve, and a device made out of pipe about 3 feet long with a series of holes in it, which sent out 15 to 20 sprays of water, which wet down the 4 foot wide cloth. There were no changes to the wet down equipment in the pad shop before workers began using it. There was modification to a circular saw, used to cut preformed insulation, that Manning,SH saw on his arrival; and some ventilation that did not work well.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0007 STARTING PAGE: 0018 ENDING PAGE: 0020
TOPIC: REPORT TO
SMITH,J

Manning,SH drafted a report to Smith,J in the late summer of 1970. Manning,SH felt the Industrial Hygiene Office was not receiving enough support to fulfill the job so he outlined the problem in writing and hoped to obtain some results. Some of Manning's,SH complaints were: difficulty getting the attention of the medical examiner, Smith,J; there was a lack of secretarial help and equipment; and also that Manning,SH was to have been promoted to "GS12" shortly after he came aboard, but had not been for three years. By that time Manning,SH had become certified in industrial hygiene practices and was going to leave the job if things did not change. Manning,SH initially was able to use the medical officer's secretary and in 1973 obtained his own secretary. Manning,SH had minimal equipment to deal with problems apt to occur. Had dust counting, and certain field-type instruments. Lacked some essential equipment and borrowed it sometimes, but it was awkward. Needed noise measuring equipment, mercury meter, equipment to check ionizing radiation, and equipment to monitor the air supply used in the respirators.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0008 STARTING PAGE: 0020 ENDING PAGE: 0022
TOPIC: HYGIENE
DEPARTMENT

Sandblasters and painters used air supply respirators at Long Beach Naval Shipyard (LBNS), but asbestos workers never did while Manning,SH was there. Manning,SH never had control over the Hygiene Department's budget. Attended all conferences of the American Industrial Hygienist Association (AIHA) between 1967 and 1974 except one in Chicago in 1967. The medical officer, Smith,J, was not aggressively supportive of the Hygiene Department, which was one reason Manning,SH wrote a report to Smith,J.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0009 STARTING PAGE: 0022 ENDING PAGE: 0025
TOPIC: NAVY ORDER
5100.26

Manning's,SH recollection of Navy Order 5100.26 is that it contained various guidelines for control of asbestos container material. It required Long Beach Naval Shipyard (LBNS) personnel to be indoctrinated twice a year as to the dangers of working with asbestos and precautions to be taken. An indoctrination program was set up subsequent to the issuance of 5100.26. Prior to the directive, Manning,SH conducted an educational program regarding asbestos. These five meetings were held in February 1968 and were directed at the pipe coverers and insulators out of Shop 56. These workers were required to attend but Manning,SH had nothing to do with whether they attended or not.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0010 STARTING PAGE: 0025 ENDING PAGE: 0027
TOPIC: SUBSTANCE OF
MEETINGS IN
FEBRUARY 1968
AND MEETINGS
IN 1971 AND
1972

Manning,SH informed the workers during the meetings of February 1968 of Selikoff's,IJ and Marr's,W reports of the dangers of asbestos. People who were exposed to asbestos were likely to contract a higher incidence of lung cancer, especially people who smoked. Raymond,A, superintendent of Shop 56, pointed out that workers could work in a way that they would not produce as much dust by using the proper kind of tools. The next series of educational meetings, held in June 1961, was for the front line supervisors of all the shops in the Long Beach Naval Shipyard (LBNS) about protecting workers from asbestos hazards in the work area. None of the subordinates involved with asbestos work were

at the meetings. "OPNAV" required meetings be held twice a year on a continual basis. Two meetings for workers were held in 1972; one in May and one in October. Only one meeting was held in 1973, in November, because Manning,SH was "swamped" with other work involving noise hazards, hearing loss claims, and other pressing work. NAVY Order 5100.26 did not have the force of law, and the shipyard commander had the right to accept or reject these kinds of guidelines. Manning,SH had no resistance in the asbestos indoctrinations, but from time to time found resistance in the area of indoctrination concerning hearing loss, because it took men away from their work.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0011 STARTING PAGE: 0027 ENDING PAGE: 0029

TOPIC: SPECIAL
CLOTHING FOR
ASBESTOS
WORKERS

Manning,SH states around 1969 a "NavShip" instruction was issued that special clothing would be provided to pipe coverers and insulators. The Long Beach Naval Shipyard (LBNS) complied with this one year and a half to two years later. The production officer and the head of the mechanical group, Nease,F, and Chapman, opposed the idea of coveralls for the workers because of the added cost. The workers were to be given coveralls before each shift and at the end of the shift the coveralls were to be turned in to be laundered.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0012 STARTING PAGE: 0029 ENDING PAGE: 0030

TOPIC: DIFFERENTIAL
PAY FOR
ASBESTOS
WORKERS

Manning,SH was involved in obtaining differential pay for asbestos workers in December of 1969. The workers received differential pay about a year later in 1970. The reason for the pay increase was to compensate workers for hazardous conditions that management could not control or could not guarantee worker safety in. Manning,SH does not know what shop or shop members received differential pay, although he personally recommended that asbestos workers out of Shops 56 and 41, and electroplating shop workers should receive differential pay.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0013 STARTING PAGE: 0030 ENDING PAGE: 0031

TOPIC: GROUP FROM
INSULATION
INDUSTRIAL
HEALTH RESEARCH
PROGRAM

A group from the Insulation Industrial Health Research Program consisting of Nickerson, Holiday,D, Hammond and Reitze,R toured Long Beach Naval Shipyard (LBNS) in 1970, spending the better part of a day there. The group wanted to familiarize themselves with the working conditions of people who worked with asbestos. Manning,SH only spoke briefly with the group; Ay,W was responsible for leading the group through the yard.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0014 STARTING PAGE: 0031 ENDING PAGE: 0032

TOPIC: RESIGNATION
FROM LONG
BEACH NAVAL
SHIPYARD (LBNS)

When Manning,SH left Long Beach Naval Shipyard (LBNS) in February 1974, he left his files, records and dust count equipment there in good working order. Unmark,F was hired 3 months later to replace Manning,SH.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0015 STARTING PAGE: 0032 ENDING PAGE: 0033

TOPIC: LONG BEACH
NAVAL SHIPYARD
(LBNS) MEETINGS
HELD IN 1972
AND 1973 FOR
ASBESTOS
WORKERS

(EXAMINATION BY NELSON,DL FOR RAYBESTOS MANHATTAN (RAY.)
Manning,SH states the two meetings in 1972 and the one meeting in 1973 at Long Beach Naval Shipyard (LBNS) were directed at making known the hazards of working with asbestos to pipe coverers, insulators, and boiler shop workers. The dangers were the possibility of contracting fibrosis, lung cancer, the enhanced incidence of lung cancer due to smoking. The ventilation being used to reduce asbestos dust was inadequate. It was highly desirable for the workers to use their respirators often. Work habits, such as using a knife instead of a hatchet in a rip-out, had a lot to do with the amount of dust in the air. Putting asbestos containing waste material in plastic bags, and using the vacuum method instead of sweeping were also good ideas.

DOCUMENT NUMBER: SHMO0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0016 STARTING PAGE: 0033 ENDING PAGE: 0035
TOPIC: SAFETY PRACTICE

S FOLLOWED AT
LONG BEACH
NAVAL SHIPYARD
(LBNS)

All practices that workers at Long Beach Naval Shipyard (LBNS) were informed of, involving asbestos work areas, became a part of the shipyard (LBNS) safety manual. The practices were in effect when the 1972 and 1973 meetings were held, however, enforcement was in the hands of the first line supervisors. The enforcement of these practices was in the hands of the foremen because of a union contract between the Shipyard Metal Trades Council and the shipyard commander. Most workers did not comply in wearing respirators, but did wear their coveralls. Workers did not always use the vacuum method, instead of sweeping, because sometimes vacuum cleaners were not available. Manning,SH got some lightweight vacuum cleaners to replace the commercial type heavy vacuum cleaners before he left the Long Beach Naval Shipyard (LBNS). Manning,SH had instances brought to his attention where workers, "possibly ship's crew" do "what they call blow down a compartment to get a nozzle of compressed air and blow that stuff all over the place, and this was their idea of clean up". This also happened in the Long Beach Naval Shipyard (LBNS) once when Manning,SH took a group, who were from the Environmental Health Center in Cincinnati, into a compartment to observe a rip-out process. Manning,SH had to leave for a few minutes and someone "picked up a nozzle and blew the whole place down". There was no disciplinary action, because no one knew who did it.

DOCUMENT NUMBER: SHMO0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0017 STARTING PAGE: 0035 ENDING PAGE: 0036
TOPIC: LONG BEACH

NAVAL SHIPYARD
(LBNS) COMMANDE
RS

When Manning,SH arrived at the Long Beach Naval Shipyard (LBNS), Dolin was commander. Dolin was commander for possibly a year after Manning's,SH arrival. Manning,SH does not know if Dolin is still in the NAVY. After Dolin, came Hart, who remained at Long Beach Naval Shipyard (LBNS) from 1968 to 1971. Then there was Fay, who had a tour of similar length. Fay was replaced by Doncheck shortly before Manning,SH left the Long Beach Naval Shipyard (LBNS) in 1974.

DOCUMENT NUMBER: SHMO0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0018 STARTING PAGE: 0036 ENDING PAGE: 0037
TOPIC: PERCENTAGE OF

WORKERS WHO
KNEW ABOUT
ASBESTOS
DANGERS

Manning,SH does not know if everyone who worked with asbestos attended the 1972 and 1973 meetings about asbestos dangers: it was not Manning's,SH responsibility to see who made it to the meetings, and who did not. There was no sign-in sheet at the meetings.

DOCUMENT NUMBER: SHMO0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0019 STARTING PAGE: 0037 ENDING PAGE: 0039
TOPIC: AY,C/EMPLOYMENT

Ay,W, who worked for Long Beach Naval Shipyard (LBNS) died of lung cancer. Ay,C is Ay's,W son. Ay,C was employed at the Long Beach Naval Shipyard (LBNS) the entire time Manning,SH was employed there. Ay,C was a pipe covering insulator for some time and at one time a foreman. Manning,SH never worked with Ay,C in the course of performing Manning's,SH job as industrial hygienist. Manning,SH met Ay,C in 1967 when Manning,SH was a "worker" and Ay,C had complained about smoke getting into the compartment where Ay,C worked. This was during the time the "U.S.S. New Jersey" was being overhauled in the Long Beach Naval Shipyard (LBNS). Manning,SH took "samples" in situations where Ay,C was foreman. Recalls being called by Ay,W to check out a situation aboard a tanker which had some "exposure". Ay,C was foreman of the group working aboard the ship.

DOCUMENT NUMBER: SHMO0001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0020 STARTING PAGE: 0039 ENDING PAGE: 0041
TOPIC: DUST CONTROL

BETWEEN 1964
AND 1967 AT
LONG BEACH
NAVAL SHIPYARD

(EXAMINATION BY DICKERSON,JH FOR CELOTEX (CEL).) Manning,R is no relation to Manning,SH. Manning's,SH job description is in the first deposition that was taken of Manning,SH. Between 1964 and 1967 there was no industrial engineer at Long Beach Naval Shipyard

(LBNS)

(LBNS). During this time, Levetan, of the Safety Department, attempted to fill in, in the industrial hygiene area. Levetan retired after Manning,SH joined Long Beach Naval Shipyard (LBNS). The safety department could not take dust counts; Marr,W had borrowed the equipment to take some dust counts during Marr's,W tenure from the California Department of Health. Manning,SH found this out from Kaplan,P. The Bausch and Lomb dust counter Marr,W borrowed was not the one prescribed in the standard procedure. One criticism of Marr's,W study is that dust counts were not done in prescribed method. Does not know who manufactured the midget impingers Manning,SH used at Long Beach Naval Shipyard (LBNS).

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0021 STARTING PAGE: 0042 ENDING PAGE: 0045
TOPIC: ELIMINATION OF

ASBESTOS AT
LONG BEACH
NAVAL SHIPYARD
(LBNS)

There was never any disciplinary proceedings initiated against pipe coverers or insulators at Long Beach Naval Shipyard (LBNS) for failure to comply with asbestos safety rules while Manning,SH was there. Prior to Manning's,SH arrival, and afterward, there were people, like Ay,W, trying to eliminate Unibestos, which was manufactured by Pittsburg Corning Manufacturing Company (PIT) and contained 100 percent amosite. Manning,SH was never involved in an effort to remove pipe covering from the Long Beach Naval Shipyard (LBNS). The elimination of the asbestos problem involved 100 percent substitution of other materials in place of asbestos. There were efforts to reach people in authority who were responsible for acquiring materials starting in 1969 with the report Manning,SH wrote to Smith,J. Had thought the people in Bureau of Medicine and Surgery (BUMED) would have influence, but apparently they did not. Eventually "last" cloth was substituted for asbestos cloth in the pad shop and preformed insulation material used glass as a binder instead of asbestos. Ay,W had said asbestos use was reduced 40 percent. The main problem was that every ship in the NAVY had asbestos material covering pipes and boilers; and when the covering had to be removed, there was a great asbestos exposure problem. Manning,SH had never been to a shipyard at Mare Island (MINS) in Vallejo, California and had no knowledge of the asbestos hazard control program there.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0022 STARTING PAGE: 0045 ENDING PAGE: 0046
TOPIC: WRITTEN REPLY

RECEIVED FROM
SMITH,J

(EXAMINATION BY SHEPHERD,JM FOR GAF.) When Manning,SH sent his report, regarding lack of support for Manning's,SH Industrial Hygiene Office, to Smith,J, Manning,SH received a written reply which was signed by Smith,J but written by an administrative officer. The reply was negative and not supportive of Manning's,SH program. The one and a half year delay in getting workers their coveralls was due, not to administrative assistants, but to a production officer named Chapman. Chapman was less knowledgeable in the industrial hygiene area, and did not rely on the judgement of people, like Manning,SH, who were hired to work in special areas.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS
PARA NUMBER: 0023 STARTING PAGE: 0046 ENDING PAGE: 0048
TOPIC: VENTILATION

CONTROL
MEASURES

Manning,SH recommended using respirators, at the 1972 and 1973 meetings at Long Beach Naval Shipyard (LBNS), to prevent worker exposure to asbestos. As control measures progressed, attempted to increase ventilation in ship compartments. By nature of ship's construction and limited access to compartment, there are limits as to how much ventilation can be put in. There is a limit to how many holes you can burn in a ship. In the context of overhauling ships in naval shipyards, there was no way of supplying enough ventilation to eliminate the hazards of breathing asbestos dust. The respirators, Manning,SH suggested at the 1972 and 1973 meetings, should not be relied on exclusively for elimination of any dust hazard. Proper tools were available for the workers so that workers could hold down the amount of asbestos dust produced.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING,SH LBNS

PARA NUMBER: 0024 STARTING PAGE: 0048 ENDING PAGE: 0049
TOPIC: SMITH, J/EMPLOYMENT
ENT

(EXAMINATION BY NELSON, DL FOR RAYBESTOS MANHATTAN (RAY)). Smith, J was medical officer of the Long Beach Naval Shipyard (LBNS) and reported to the shipyard commander. When the administrative change occurred in August, 1972 Smith, J reported to the head of the Naval Regional Medical Center (NRMCC). Smith, J retired a couple of years after Manning, SH left the Long Beach Naval Shipyard (LBNS). Manning, SH left Long Beach Naval Shipyard (LBNS) in February, 1974.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0025 STARTING PAGE: 0049 ENDING PAGE: 0049
TOPIC: NAVY REGIONAL
MEDICAL CENTER
(NRMCC)

(EXAMINATION BY DICKERSON, JH FOR CELOTEX (CEL). Manning, SH states the Naval Regional Medical Center (NRMCC) is an organization encompassing, among other things, the Long Beach Naval Hospital.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0026 STARTING PAGE: 0049 ENDING PAGE: 0050
TOPIC: EMPLOYMENT

(EXAMINATION BY CARLSON, KW FOR ROBINSON, JC.) Manning's, SH job duties at the Pennsylvania Department of Health involved the recognition, evaluation and control of industrial health hazards while touring industry facilities. When Manning, SH found situations that needed to be corrected, there was sometimes employer resistance in implementing Manning's, SH recommendations, which sometimes took up to a year to implement.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0027 STARTING PAGE: 0051 ENDING PAGE: 0053
TOPIC: ASBESTOS
EXPOSURE

In 1961, soon after Manning, SH began working as an industrial hygienist, he became aware that asbestos was a potentially hazardous material. Was not Manning's, SH understanding that the danger in working with asbestos was only to mine and factory workers, and not to people using asbestos products. In 1970 or 1971 Manning, SH saw warnings printed on asbestos preform products, but until February 1968 had not seen or heard of warning labels on asbestos insulation products at Long Beach Naval Shipyard (LBNS). Manning, SH does not recall what the warning stated, but it was not an adequate warning.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0028 STARTING PAGE: 0053 ENDING PAGE: 0055
TOPIC: "FLEISCHER-DRINKER REPORT"
AND ASBESTOS
EXPOSURE

Manning, SH heard of the "Fleischer-Drinker Report" in the early 1960's when Manning, SH was employed by the Pennsylvania Department of Health. This report dealt with asbestos. Does not recall from this report what segment of the population studied was exposed to asbestos over 20 years. The report mentioned the Insulation Industrial Health Hygiene Institute's tour of Long Beach Naval Shipyard (LBNS) in 1970. One of the individuals who toured, Reitze, R was employed by JMC. Reitze, R and Manning, SH had a brief conversation about the new method of counting dust involving membrane filter. Prior to this 1970 tour, Manning, SH was never contacted by any representative of any asbestos company. At the indoctrination meetings, held in 1972 and 1973 at Long Beach Naval Shipyard (LBNS), Manning, SH did not imply to the people in attendance that if they wore a respirator they had little or no risk of getting an asbestos related disease, but told them that when and if they wore a respirator, the respirators were effective. Manning, SH was initially exposed to asbestos when employed by the Pennsylvania Department of Health. Was also exposed while taking dust samples in the Long Beach Naval Shipyard (LBNS). Manning, SH has been told by a doctor that he has an asbestos-related illness.

DOCUMENT NUMBER: SHM00001 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0029 STARTING PAGE: 0056 ENDING PAGE: 0056
TOPIC: ASBESTOS
LAWSUIT

(EXAMINATION BY NELSON, DL FOR RAYBESTOS MANHATTAN (RAY).) Manning, SH is a plaintiff in an asbestos-related pending lawsuit

with his counsel being Steinberg, R of Rose, Klein and Marias.

DOCUMENT NUMBER: SHMOOOO1 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0030 STARTING PAGE: 0057 ENDING PAGE: 0058
TOPIC: RESPIRATOR USE

(EXAMINATION BY MARDEN, SM FOR JMC.) When Manning, SH worked at Long Beach Naval Shipyard (LBNS) he always wore a respirator while taking dust samples of asbestos insulation products. It was not Manning's, SH usual practice to wear a respirator while he was employed by the Pennsylvania Department of Health; there were none available, and it was not good practice to wear a respirator and alarm all the workers. While with the Pennsylvania Department of Health, Manning, SH inspected facilities that manufactured finished asbestos products from raw asbestos fiber. Manning, SH, had difficulty contacting authorities in Washington, District of Columbia while working at Long Beach Naval Shipyard (LBNS), but has no knowledge if any manufacturers of finished asbestos products ever had contact with authorities in Washington, District of Columbia.

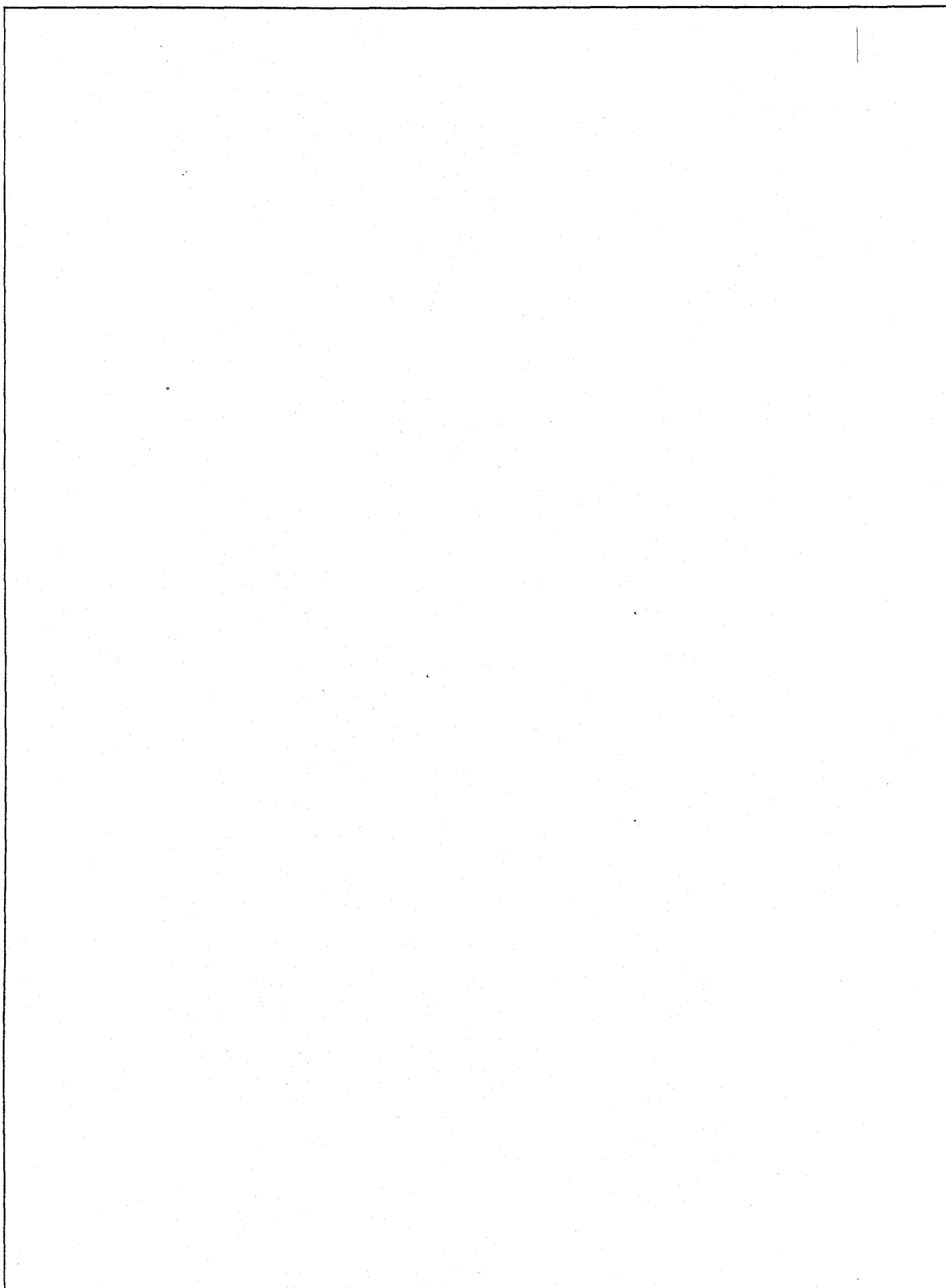
DOCUMENT NUMBER: SHMOOOO1 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0031 STARTING PAGE: 0058 ENDING PAGE: 0058
TOPIC: 1972 AND 1973

MEETINGS ABOUT
ASBESTOS AT
LONG BEACH
NAVAL SHIPYARD
(LBNS)

(EXAMINATION BY DICKERSON, JH FOR CELOTEX (CEL).) Manning, SH thought the meetings held at Long Beach Naval Shipyard (LBNS) in the late 1960's, 1972 and 1973 were adequate to inform the workers of the dangers of asbestos exposure.

DOCUMENT NUMBER: SHMOOOO1 WITNESS: MANNING, SH LBNS
PARA NUMBER: 0032 STARTING PAGE: 0059 ENDING PAGE: 0060
TOPIC: RECOLLECTION
OF ROBINSON, J

(EXAMINATION BY MARDEN, SM FOR JMC.) Manning, SH does not know if he ever had contact with Robinson, J. Does not know if Robinson, J acted as foreman. (COLLOQUY RE: DISCUSSION OF CLOSE OF DEPOSITION, LENGTH OF TIME MANNING, SH IS ALLOWED TO KEEP AND READ DEPOSITION, WHICH LAW OFFICE WILL HOLD DEPOSITON UNTIL TRIAL, P. 69.)



SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF ALAMEDA

IN RE ASBESTOS CASES
CONSOLIDATED FOR DISCOVERY

JOHN C. ROBINSON,
Plaintiff,

vs.

JOHNS-MANVILLE SALES
CORPORATION, et al.,
Defendants.

No. 529948-7

AND

501419-4

Deposition of SHELDON H. MANNING, taken on behalf of
Defendant Johns-Manville, at Holiday Inn, 2650 Lakewood Boulevard,
Room 1112, Long Beach, California, on Monday, August 3, 1981,
commencing at 10:10 A.M., before William R. Pay, CSR No. 1228,
Notary Public, pursuant to Notice.

RECEIVED
SEP 16 1981
Moore, Clined, Wells, Larson & Trutner

MIDDLETON, O'BRIEN & PAY
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I N D E X

<u>WITNESS</u>	<u>EXAMINATION BY</u>	<u>PAGE</u>
Sheldon H. Manning	Mr. Marden	4 57 59
	Mr. Nelson	32 48 56
	Mr. Dickerson	39 49 58
	Mr. Shepherd	45
	Mr. Carlson	49

E X H I B I T S

(NONE)

1 SHELDON H. MANNING,
2 called as a witness on behalf of Defendant Johns-Manville,
3 having been first duly sworn, was examined and testified as
4 follows:

6 EXAMINATION

7 BY MR. MARDEN:

8 Q Sir, would you state your full name for the record,
9 please.

10 A Sheldon Hyatt Manning.

11 Q Mr. Manning, you have gone through several
12 deposition previously; is that correct?

13 A Yes.

14 Q So you are aware of what we are going to be doing
15 here today; is that correct?

16 A Yes.

17 Q Rather than go through all of the ground rules of
18 a deposition, I would just like to refresh your memory as to
19 one: That is, if somebody asks you a question here today that
20 you don't understand, please have that individual rephrase it.
21 Is that okay?

22 A Yes.

23 Q Sir, you were born July 28, 1919; is that correct?

24 A Yes.

25 Q Do you have a college diploma?

26 A Yes.

27 Q And what is that in?

28 A Bachelor of Science in commerical chemistry from

1 Penn State University.

2 Q Whendid you receive that degree?

3 A In May of 1943.

4 Q Where are you currently residing?

5 A I am residing at 15403 Piuma, in Norwalk, California.

6 Q Prior to coming here this morning, have you reviewed
7 any documents or writings of any type?

8 A Just last Sunday I went over some things, my log
9 to refresh my memory about things.

10 Q When you say "last Sunday," do you mean August 2nd,
11 1981 or --

12 A Sunday prior.

13 Q So that would be the last Sunday in July; correct?

14 A That's right.

15 Q Now, in preparing to give testimony, have you
16 discussed with anyone what you are going to be testifying to?

17 A Yes.

18 Q Who have you had those discussions with?

19 A Yesterday I had a half-hour discussion with
20 George Rosenberg of Greene & O'Reilly, I think, with permission
21 of my attorney, Robert Steinberg, and we went over some of
22 the points from my previous testimony.

23 Q Can you tell us what points from your previous
24 testimony you went over with Mr. Rosenberg?

25 A Well, we discussed what my duties were at the
26 shipyard, and he was interested in what other things I had to
27 do besides current things of interest. Just kind of a general
28 discussion. I can't say too much more about it, I guess.

1 I don't recall.

2 Q Is that because you don't recall anything else
3 about that one-half hour discussion with Mr. Rosenberg?

4 A Well, it was nothing. I told him what I had to do
5 was to tell the truth, and I laid it out that I had had lengthy
6 depositions and I couldn't deviate from anything that I said.

7 Q Was Mr. Rosenberg attempting to have you change
8 your testimony?

9 A No.

10 Q Outside of Mr. Rosenberg, have you had any
11 discussions or conferences with anyone, any attorney other than
12 Mr. Rosenberg, over the past three-month period? Excluding,
13 of course, any conversations you had with your own attorney,
14 Mr. Steinberg.

15 A No.

16 Q And you have only met with Mr. Rosenberg once?

17 A I run into him in my own attorney's office, met
18 him briefly. That was about it.

19 Q During that brief meeting with Mr. Rosenberg in
20 your attorney's office, did you two have any discussions about
21 your testimony?

22 A I think he just made reference to the fact that I
23 was probably going to be testifying, and that was about it.

24 Q Was this testimony going to be in this deposition,
25 or in another trial?

26 A In the trial.

27 Q Sir, has that conversation or those conversations
28 with Mr. Rosenberg caused you to alter the nature of your

1 testimony?

2 A. No.

3 Q. Now, sir, you were employed and you worked at
4 Long Beach Naval Shipyard; is that correct?

5 A. Yes.

6 Q. When did you begin your employment at Long Beach
7 Naval Shipyard?

8 A. March 7, 1967.

9 Q. When was that last day that you worked at Long Beach
10 Naval Shipyard?

11 A. February 25, 1974.

12 Q. During that period of time what was your job?

13 A. I was industrial hygienist at the Long Beach Naval
14 Shipyard.

15 Q. During that entire period was there ever another
16 industrial hygienist at that specific yard?

17 A. No -- correction. From October, 1973, there was
18 a Robert Manning who was hired as the head of the industrial
19 hygiene branch, I think it was called, Naval Occupational
20 Health Center.

21 Prior to that the Long Beach Medical Health
22 Department had been transferred administratively into the
23 Naval Regional Medical Center.

24 Q. Where is the Naval Regional Medical Center located?

25 A. Their office is at the Navy Hospital in Carson --
26 on Carson.

27 The duties were the same, but -- and my office was
28 in the Shipyard, and I had the same duties, but the

1 administration end of it was transferred over to the other
2 entity.

3 Q Now, prior to your employment at Long Beach Naval
4 Shipyard, had you ever worked as an industrial hygienist
5 previously?

6 A Yes.

7 Q Where was that?

8 A I worked as industrial hygienist for the
9 Pennsylvania Department of Health of the Williamsport,
10 Pennsylvania office.

11 Q Can you give me the dates of employment with that
12 entity?

13 A It was about September, 1961, to the end of
14 February of 1967.

15 Q Did you receive any special training or education
16 in industrial hygiene while employed with the Pennsylvania
17 Department of Health?

18 A Yes.

19 Q Was that just one course, or a series of courses?

20 A There were a series of courses that I attended,
21 mostly put on, sponsored by the U.S. Public Health Department.

22 Q Where were those courses held?

23 A One was held in the School of Public Health in
24 Pittsburgh, Graduate School of Public Health in Pittsburgh, and
25 I went, attended a course later that involved nuclear physics
26 and nuclear health aspects. I attended some courses in
27 Harrisburg that dealt with noise and industrial hygiene
28 engineering.

1 Q Prior to working with the Pennsylvania Department
2 of Health, had you ever been employed in the capacity as
3 industrial hygienist?

4 A No.

5 Q Had you received any special training or education
6 in that field before your employment with the Pennsylvania
7 Department of Health?

8 A Not specifically, no.

9 Q Now, prior to your beginning your employment at
10 Long Beach Naval Shipyard, did you have an interview with the
11 Navy for that position?

12 A Yes.

13 Q Do you recall the substance of those conversations
14 during that interview?

15 A Well, I was interviewed in Philadelphia. The name
16 of the man escapes me at the moment. He was the industrial
17 hygienist there, and he interviewed me and went over my
18 background, and he indicated at the time he thought I was
19 suitable for the job and, as a matter of fact, he says he
20 thought I had the job.

21 Q Do you recall if you had any conversations during
22 that interview regarding what staff and equipment you would
23 have in Long Beach?

24 A No.

25 Q Can you describe for us your duties as an industrial
26 hygienist at Long Beach?

27 Strike the question.

28 Can you describe for us the duties you had as

1 an industrial hygienist at Long Beach Naval Shipyard?

2 A. Well, my duties, of course, were involved with
3 recognition and evaluation and recommendations for control of
4 industrial health hazards. I had a job description. I think
5 they spelled out with more specifics, that I was involved in
6 radiation control which they tacked on me, and "Any other
7 duties as may be assigned."

8 So, you know, it kind of opened up the thing to
9 add anything that was assigned, really.

10 MR. MARDEN: Off the record.

11 (Discussion off the record.)

12 Q. BY MR. MARDEN: When you arrived at Long Beach Naval
13 Shipyard in March, 1967, was there an industrial hygienist
14 present at the Yard?

15 A. No.

16 Q. Who was the last industrial hygienist at Long Beach
17 before you arrived?

18 A. William Marr.

19 Q. Is that M-a-r-r?

20 A. Yes.

21 Q. Do you know when Mr. Marr left?

22 A. Best of my knowledge, he left sometime in the fall
23 of 1963.

24 Q. Fall of 196⁴3?

25 A. Yes.

26 Q. During the period of time between the fall of
27 196⁴3 and March of 1967, was anyone acting as an industrial
28 hygienist at Long Beach Naval Shipyard, to your knowledge?

1 A. Is that question "acting"?

2 Q. Acting. Well, strike the question.

3 During the period from the fall of 1963 through
4 March of 1967, was anyone assigned responsibilities of an
5 industrial hygienist?

6 A. Well, if you rephrase the question, "Was there
7 anybody in the position of industrial hygienist?" I can give
8 you an answer.

9 Q. Okay. Let me rephrase the question.

10 During that period of time, from the fall of 1963,
11 through March of 1967, was anybody in the position of
12 industrial hygienist?

13 A. No.

14 Q. Now, when you arrived at Long Beach, did you have
15 an office?

16 A. Yes.

17 Q. What building was that office located in? Do you
18 recall?

19 A. I really don't recall the exact number.

20 Q. Were there any materials in that office that had
21 been left by the previous industrial hygienist?

22 A. The office was empty.

23 Q. Were there any files or reports prepared by
24 Mr. Marr that you had access to when you first arrived in March
25 of 1967?

26 A. No.

27 Q. Did the industrial hygienist office have a
28 technical library of any type when you first arrived in March

1 of 1967?

2 A. There was some books of a technical nature there
3 that were in the shipyard library, and I was able to take those
4 out of the library and use them.

5 Q. Do you recall the names of those books?

6 A. Oh, one was Petty's volume.

7 Q. Is that P-e-t-t-y?

8 A. Petty's volume of Industrial Hygiene Practice, I
9 think is the title of it. Reference I think we had to the
10 Industrial Environment Evaluation and Control. That was
11 published by U.S. Public Health.

12 Sax volume on Industrial Toxicology I believe is
13 the title.

14 Q. How do you spell that?

15 A. S-a-x.

16 Q. Do you recall any other books that were in the
17 library?

18 A. I don't really recall. It was a fair amount of
19 literature that was in the library, and I was able to acquire
20 more.

21 Q. Did the library have any back issues of technical
22 journals?

23 A. No.

24 Q. Let me rephrase that.

25 Did the library have any back issues of industrial
26 health of industrial hygiene technical journals?

27 A. No.

28 Q. Were those industrial journals important to the

1 performance of the industrial hygienist's job and duties?

2 A. Yes, it was.

3 Q. Now, when you arrived at the Long Beach Naval
4 Shipyard in March of 1967, did you have any equipment to take
5 dust samples with?

6 A. No.

7 Q. Did you request that the necessary equipment be
8 provided to you?

9 A. Yes.

10 Q. When was that equipment delivered to you?

11 A. Well, I finally received everything that I needed
12 to count dust about June of '68.

13 Q. And did you begin to make dust studies after June
14 of '6⁸?

15 A. Yes.

16 Q. Can you tell us what equipment was necessary for
17 the performance of dust studies?

18 A. At that time it was necessary to have a microscope
19 capable of 100X and 950 power; air pumps; Midget, small
20 impingers, Midget impinger; dust counting slides and covers.
21 They needed a device called a Whipple Disc and a Stage
22 micrometer, various flasks. They needed a gas burner, needed
23 a membrane filters and reliable supply of distilled water.
24 That, I think, about covers it.

25 Q. Now, after you received the necessary equipment,
26 you did perform dust studies; is that correct?

27 A. Yes.

28 Q. Can you tell us how frequently you performed dust

1 studies?

2 A. Well, I performed those over a period of time as
3 frequently as I found time. I performed enough dust studies
4 probably in a nine-month period to write a report which I think
5 fulfilled my duty as far as evaluation of the hazard.

6 There was prior work in this area of Bill Marr's,
7 and he had also written a report, and things that I found were
8 parallel to things that he found.

9 Q. Do you have a date of that, of Mr. Marr's report?

10 A. I think this report is -- that was published in
11 Industrial Hygiene Journal, and I think it is dated sometime
12 1964. It's on the record.

13 Q. When did you first read Mr. Marr or the report that
14 was published in Industrial Hygiene Journal by Mr. Marr?

15 A. I was able to acquire a copy of it soon after I
16 arrived at the Shipyard. I read it.

17 Q. Do you recall who you acquired that report from?

18 A. I may have acquired it from the people at the
19 California Department of Health.

20 Q. It wasn't provided to you by anyone out of the yard?

21 A. No, I don't think so.

22 Q. Prior to you receiving that report from the
23 California Department of Health, had you had any discussions
24 with anyone at Long Beach Naval Shipyard regarding Mr. Marr's
25 report?

26 A. Yes. Best of my recollection, I think Cliff Kreiger
27 who was the safety superintendent, as I recall, brought up the
28 matter of his report.

1 Q Do you recall when you had that discussion with
2 Mr. Kreiger?

3 A That was probably early on after I arrived at the
4 Shipyard. Very early.

5 Q Do you recall the substance of that conversation
6 with Mr. Kreiger?

7 A As I recall, he mentioned the report, and either
8 then or later he informed me that Bill Marr had published this
9 report without prior permission from the Shipyard command, as
10 was required by Navy regulations.

11 He also indicated that this caused some
12 consternation among Shipyard administrative people.

13 Q We have discussed or we have made reference to
14 dust studies previously today. Can you tell us what substances
15 you were taking dust studies of?

16 A At the Shipyard there were two types of dust. Of
17 course, the dust that contained asbestos fibers, and there was
18 the dust problems connected with sandblasting, and I checked
19 samples in both areas.

20 Q Can you give us an idea of what percentage of your
21 dust studies were done relative to asbestos?

22 A As an estimate, I would say probably 85 percent of
23 my dust studies were concerned with asbestos. The other 15
24 percent of the dust contains the other.

25 Q When you arrived at Long Beach in March of 1967,
26 when you began to work there, was anyone else in the industrial
27 hygiene department with you?

28 A No.

1 Q You were the only member then of the industrial
2 hygiene department?

3 A Yes.

4 Q Can you tell us who you would report to in the
5 command structure at the Shipyard?

6 A I reported to a medical officer. Initially it was
7 a Captain George Watkins.

8 Q Now, were your reports written when you first
9 arrived there?

10 A I would say the stipulation imposed by
11 Captain Watkins was that there would be no written reports.

12 Q Do you know what Captain Watkins' reason was for
13 having no written reports?

14 A I would think that he was nervous about having
15 material in writing that might get outside the Shipyard possibly
16 and embarrass him.

17 Q Did you ever have a conversation with
18 Captain Watkins where you discussed the fact that he wanted
19 all of your reports orally as opposed to in writing?

20 A There was some conversation. I recall he made a
21 specific point of seeing that I read the regulation that
22 required prior approval for any speeches or written reports
23 that were done or made outside the Shipyard. I particularly
24 recall that he required me to read that regulation in front of
25 himself and the administrative officer.

26 Q You never published anything, did you?

27 A No.

28 Q When you first arrived at Long Beach, were

1 wet-down procedures being used anywhere in the yard when
2 employees were working with asbestos products?

3 A. No, not at that time.

4 Q. Were any facilities set up with the equipment
5 necessary to wet-down asbestos products before they were used?

6 A. Yes.

7 Q. What facility was there?

8 A. That facility was known as the pad shop where
9 insulation pads were fabricated, and in that shop prior to my
10 arrival there had been set up facilities for wetting down the
11 asbestos cloth before it was cut, and one of the first things
12 I noticed they were not using, and this was immediately
13 straightened out.

14 Q. Can you describe for us what type of equipment
15 was available in that shop for wet-down procedures?

16 A. It was a hose connected to a water pipe and a
17 valve, and there was a device that I think was made out of a
18 pipe with a series of holes in it, and it was about, oh, I
19 would say three feet long and was, sent out 15 to 20 sprays
20 of water, and it would cover the cloth that was laid out on the
21 table, wet it down.

22 The cloth was -- my recollection would be it was
23 at least four feet wide.

24 Q. Was the equipment that was present in the pad
25 shop changed or modified at all before the employees in the shop
26 began to use it?

27 A. No, with the exception, I think, when I first
28 arrived there was a saw, circular saw that was used to cut the

1 preformed insulation material, and I believe, best of my
2 knowledge, there was some ventilation along with that, but it
3 wasn't -- if I recall, it didn't work very well.

4 Q But there were no changes to the equipment used for
5 wet-down in the pad shop?

6 A For wet-down, no.

7 Q Did you ever draft a report to Commander Jose Smith?

8 A Yes.

9 Q Do you recall the date that that report was
10 drafted?

11 A That went out sometime I think in late summer of
12 '70.

13 Q What was your purpose for writing that report?

14 A Well, at that time I felt that the industrial
15 hygiene office had not received enough support to fulfill the
16 duties that were required of the job, and I had been having
17 difficulty getting the attention of the then-medical examiner,
18 Dr. Smith, on these matters, and I decided that the best thing
19 to do was to get what I needed and outlined the whole problem
20 and get it before him in writing and, hopefully, get some
21 results.

22 Q Can you tell us what complaints you had at that
23 time with the way that the industrial hygiene department was
24 not receiving enough support?

25 A Well, one of the problems that I had up until then
26 was lack of secretarial help by the time there were reports to
27 be written, and as things developed, there were, especially,
28 hearing loss claims to be developed and considerable amount of

1 paper work. We had quarterly reports, and I had no steady
2 secretarial help.

3 Sometimes I had to do my own typing, which I don't
4 do very well. There was equipment that I should have had.

5 I had been -- when I came aboard, it was indicated
6 to me that although I qualified for a higher rating, that when
7 I came aboard, at some period - I thought it was a short
8 period - but I would be promoted to a GS-12, and this had gone
9 on now for three years, and I think by that time I had become
10 certified in industrial hygiene practices, and it got to the
11 point where things were going to change or I was going to
12 leave, was about it.

13 I needed more staff. First, I was going to fulfill
14 the duties that they wanted me to do. These kind of jobs
15 expand along the way in the amount of work you are expected to do,
16 but if you have more manpower, why, there is nothing -- certain
17 areas get neglected.

18 Q Did you receive secretarial help after that report
19 to Commander Smith?

20 A Well, initially I was given the privilege of using
21 the medical officer's secretary from time to time, and that
22 worked out partially.

23 Eventually I had my own secretary, and that didn't
24 come about until the summer of 1973.

25 Q Well, you indicated that one of your complaints to
26 Commander Smith was that you needed additional equipment; is
27 that correct?

28 A Yes.

1 Q Can you tell us briefly what additional equipment
2 you needed at that time?

3 A Well, I probably, at that time, I needed a whole
4 gamut of the noise measuring equipment. It's hard for me to
5 reflect just what I had at the time and what I didn't have at
6 the time. Probably at that time I had a very minimal amount
7 of equipment to deal with the things that were likely to crop
8 up.

9 I did have the dust counting capabilities, as you
10 know, at the time. I had certain ^{field} ~~fuel~~-type instrumentation, 211
11 but I think probably I lacked a mercury meter and an ability
12 to check ionizing radiation, and these things were fairly
13 essential and necessary.

14 Prior to this sometimes I filled the gap by being
15 able to borrow this kind of equipment here and there, but things
16 were awkward. I think also I lacked all the necessary
17 equipment to monitor the air supply that the people were using
18 air supply respirators with.

19 Q What were these employees using the air supply
20 respirators for, what type of work?

21 A Sandblasters used air supply respirators, and
22 painters used air supply respirators that were involved in
23 painting inside compartments of ships. This maybe about
24 covered it.

25 Q Do you know if any workers were working with or
26 around asbestos insulation products were using air supply
27 respirators?

28 MR. CARLSON: When?

1 MR. MARDEN: At the time he was asking for new equipment.

2 THE WITNESS: No. Asbestos workers never used air line
3 respirators when I was there.

4 Q BY MR. MARDEN: At the time that you wrote this
5 report to Commander Smith, did you have control over the
6 industrial hygiene department budget?

7 A No.

8 Q Did you eventually receive control over the
9 department's budget?

10 A No.

11 Q At the time you wrote this report to
12 Commander Smith, were you attending conferences and conventions
13 of the American Industrial Hygienist Association on a regular
14 basis?

15 A Yes.

16 Q Can you tell us how often you would attend these
17 conventions or conferences?

18 A The conference of Governmental Industrial Hygienist
19 in conjunction with the American Industrial Hygiene conference
20 was scheduled once a year, and I attended every one of those
21 conferences except one.

22 Q Which one did you not attend?

23 A I did not attend the conference in Chicago which
24 happened in 1967, soon after I came aboard.

25 Q But you attended every conference after 1967 until
26 the time you left the yard in 1974?

27 A Yes.

28 Q At the time you wrote the report to Commander Smith,

1 were the medical officers that you were reporting to supportive
2 of your efforts as industrial hygienist?

3 A. Commander Smith was the medical officer.

4 Q. Was Commander Smith supportive of your program?

5 A. My attitude, I believe, at the time was that he
6 was not aggressively supporting the program, and this was one
7 of the purposes in writing the memorandum to him, to get his
8 attention to outline the problems and hopefully get some action.

9 MR. MARDEN: Off the record.

10 (Discussion off the record.)

11 Q. BY MR. MARDEN: Now, Mr. Manning, have you ever
12 reviewed Navy Order 5100?

13 A. Could you be more specific? Does it have a title?

14 Q. I don't recall the title. I do believe it was
15 a directive regarding the elimination of asbestos from ships.

16 MR. NELSON: He means OPNAV instructions. That's
17 published by the Operations in Washington.

18 THE WITNESS: Yeah, I know what it means. Do you know
19 the date of that report?

20 Q. BY MR. MARDEN: I believe it was in November, 1969.

21 A. 5100, you say?

22 Q. Right.

23 A. I think that I would have been familiar with that.
24 I got -- the answer would be yes, at the time I was familiar
25 with it. I don't have a recollection of exactly what it
26 contains at this time without it being before me.

27 Q. Do you have any specific recollection of OPNAV
28 instruction 5100.26?

1 A. I have a vague recollection.

2 Q. Can you describe for us what your vague recollection
3 is?

4 A. If that's the report of the time you say it is,
5 it contained various guidelines for control of probably
6 asbestos container material.

7 Q. Do you know, sir, if any efforts were taken at
8 Long Beach Naval Shipyard to comply with the guidelines set
9 forth in this instruction 5100.26?

10 A. I think that regulation which was a guideline
11 contained requirements that the Shipyard personnel be
12 indoctrinated into the, as to the dangers of working with
13 asbestos and precautions to be taken, I believe, twice a year.
14 I think it would have contained other things like the
15 ventilation should be applied to the situation, wetting-down
16 procedures. I believe it probably contained requirements that
17 waste material be collected in plastic bags.

18 Q. When you refer to waste material, you mean asbestos
19 waste material?

20 A. Asbestos waste material; respirators should be
21 worn by people who work with asbestos-containing material.

22 Q. Do you know, sir, if an indoctrination program was
23 set up at Long Beach Naval Shipyard?

24 A. Yes.

25 MR. CARLSON: At any time?

26 MR. MARDEN: Let me rephrase the question.

27 Q. Do you know, sir, if an indoctrination program was
28 set up at Long Beach Naval Shipyard subsequent to the issuance

1 of 5100.26?

2 A. Yes.

3 Q. Prior to that directive had you ever conducted an
4 educational program regarding asbestos?

5 A. Yes. I participated in such a program.

6 Q. Can you recall the date of that program?

7 A. That indoctrination -- those indoctrination meetings
8 were held in February, 1968. As I recall, there were five
9 separate meetings in which I, along with numerous other people,
10 the supervisory types that supervised the asbestos workers,
11 plus the safety department, helped indoctrinate these workers
12 and educate them.

13 Q. Who were the workers that this program in February,
14 1968, was directed to?

15 A. I think the workers exclusively were the pipe
16 coverers and insulators.

17 Q. Do you recall what shop the pipe coverers and the
18 insulators worked out of?

19 A. Shop 56.

20 Q. Was it mandatory for the workers out of Shop 56 to
21 attend this indoctrination program in February of 1968?

22 A. I had nothing to do with whether the people
23 attended or didn't attend. Getting the people to the meeting
24 was the responsibility of, number one, I think the training
25 department and the supervision of the pipe coverers and
26 insulators. I think the theory was they were required to attend
27 and the supervision were responsible for seeing that they got
28 to the meeting.

1 Q Do you recall the substance of those meetings held
2 in February of 1968?

3 A I recall my part of it. By that time
4 Dr. Irvin Selikoff's initial reports were public, in print.
5 I first went over the content of Bill Marr's report and told
6 them things that probably they already knew, were the most
7 dangerous. I did tell them about the content of Dr. Selikoff's
8 report, the new information that people who worked or were
9 exposed to asbestos were likely to contract a higher incidence
10 of cancer, mostly of the lungs.

11 I did point out the findings of that report that
12 indicated that smokers who also worked with asbestos were likely
13 to have a much higher incidence of cancer.

14 The other people there pointed out some of the
15 practical aspects of controlling the exposure. I remember
16 Art Raymond who is the superintendent of Shop 56 pointed out
17 the workers could work in such a fashion that they wouldn't
18 produce as much dust by using the proper kind of tools.

19 That's about all I recall at those meetings.

20 Q Now, do you recall when the next series of
21 educational meetings were held regarding asbestos at Long Beach
22 Naval Shipyard?

23 A Yes. There were a series of meetings that were
24 held in the summer, I think around June of 1971, and these
25 were held in the building occupied by the safety department,
26 and these meetings, all the first line supervisors, foremen,
27 supposedly all, I can't vouch for that, but held indoctrination
28 sessions for the front line supervisors, foremen of all the

1 shops in the Shipyard in regard to protecting workers from the
2 hazards of working with asbestos or around it.

3 Q. Were any of the actual employees that were doing
4 the work involved with these meetings that were held in June
5 of 1971?

6 A. No.

7 Q. To your knowledge, sir, were indoctrination meetings,
8 as you testified were required by OPNAV instruction 5100.26
9 ever held on a continual basis twice a year?

10 A. Yes. There were two meetings held in 1972, and
11 I think one in May, and the other in probably October.

12 Q. Were there two meetings held in 1973?

13 A. No.

14 Q. How many meetings were held in 1973?

15 A. There was one such indoctrination session in
16 November of 1973.

17 Q. Do you recall any reason why, sir, two meetings
18 were not held in 1973?

19 A. My recollection is that during that time I was
20 swamped with other work. For instance, I had, then was
21 involved in this indoctrinating everyone in the Shipyard
22 regarding the noise hazards, and we were holding meetings twice
23 a day with groups of possibly 30 or 50 shipyard workers, and
24 there were hearing loss claims to be reprocessed and pressing
25 work that was just overload in the past or something.

26 These recollections or instructions that you
27 refer to do not have the force of law. They were guidelines,
28 and although they are printed by or sent out by somebody in

1 Washington, these regulations, OPNAV I guess in this case,
2 all these instructions are reviewed inside the Shipyard, and
3 from these Shipyard instructions that probably included in the
4 safety manual are written up and signed by the Shipyard
5 commander. The Shipyard commander has the same authority as
6 a captain of a ship at sea. He is final authority, and he has
7 the right to accept or reject these kind of guidelines.

8 Q Thank you. During the period that you were
9 providing indoctrination programs to asbestos workers, did you
10 find or experience any resistance from management personnel as
11 to calling these men away from their jobs for these programs?

12 A In the area of these asbestos indoctrinations, I
13 know of no resistance. In the area of indoctrination and
14 hearing loss, conserving hearing, there was sometimes that
15 groups didn't show up. These kind of things naturally took
16 men away from their work, and there was, from time to time,
17 resistance of this nature. I didn't particularly have to
18 contend with it.

19 Education and training and indoctrination were
20 in the hands of a group that had this responsibility. As I
21 say, I was not directly involved in getting the people to these
22 sessions.

23 Q In seeing that special clothing was issued to
24 workers who were working with or around asbestos products?

25 A Yes.

26 Q When was that?

27 A It probably was somewhere around 1970, in there.
28 I am kind of vague on just when it was.

1 Q Do you know when the guideline or order was issued
2 that special clothing would be provided to pipe coverers and
3 insulators?

4 A Best of my recollection, it was around 1970 that
5 the directive came out of Washington. It probably was a
6 NavShips instruction.

7 Q Do you know when the Shipyard complied with that
8 directive?

9 A It was much later.

10 Q Can you tell us how much later?

11 A It was probably a year and a half to two years.

12 Q Can you tell us what the difficulties were in
13 implementing that program?

14 A Initially, the understanding that the production
15 officer, along with possibly the head of the mechanical group
16 which was Frank Nease, and the other gentleman was
17 Captain Chapman, opposed the idea of providing coveralls for
18 these workmen.

19 Q Then did they oppose that program?

20 A I believe they objected to the added cost.

21 MR. NELSON: When was this, sir?

22 THE WITNESS: Well, it may have been 1969 or thereabouts
23 that directive came out, because Captain -- I am thinking about
24 when Captain Chapman served. He was production officer out
25 there when I first came aboard and was that for maybe two years.
26 So it probably came out about - correct my earlier statement -
27 about 1969.

28 Q BY MR. MARDEN: So 1969 the directive came out

1 regarding special clothing for asbestos workers; correct?

2 A. Yes.

3 Q. Can you describe for us what this special
4 clothing was?

5 A. I believe the content of that instruction was that
6 the pipe coverers and insulators were to be supplied with
7 coveralls before each shift and that they were to remove these
8 coveralls when they came back from their work and turn them in,
9 that these coveralls would be laundered. Also, I think it was
10 necessary to provide lockers for each man in order to change
11 clothing.

12 Q. Approximately a year and a half to two years after
13 this directive came down, that program was implemented; correct?

14 A. Yes.

15 Q. Were you ever involved, sir, in obtaining
16 differential pay for asbestos workers?

17 A. Yes.

18 Q. When was that?

19 A. My recollection that differential pay was indicated
20 is probably December of '69. I gradually became involved over
21 a period of years.

22 Q. Do you know, sir, when asbestos workers began to
23 receive a differential pay for working with asbestos products?

24 A. Probably about a year later. Probably '70,
25 somewhere in that area.

26 Q. Do you know the basis for giving asbestos workers
27 that differential pay?

28 A. Well, the reason for writing the differential pay

1 plan, as far as I could discern, was to compensate workers
2 for hazardous conditions that the management could not entirely
3 control or could not guarantee that the worker was safe. That,
4 I believe, was the intent of the directive.

5 Q Do you know what shop or members of what shop
6 received differential pay?

7 A Not entirely. I can tell you what I recommended.
8 I recommended that the asbestos workers receive differential
9 pay and that the personnel working in the electroplating shop
10 have differential pay, and I thought that anything beyond that
11 should be handled on a case basis and looked at.

12 Q When you say asbestos workers, do you refer to
13 those employees working out of Shop 56?

14 A The pipe coverers and insulators and probably the
15 boilermakers who were involved in working with asbestos, and
16 these were a part of Shop 56 -- beg your pardon. Pipe coverers
17 and insulators are a part of Shop 56. Boilermakers are a part
18 of Shop 41.

19 Q Were you ever present when a group from the
20 insulation industrial health research program toured Long Beach
21 Naval Shipyard?

22 A Yes.

23 Q Do you recall when that tour took place?

24 A I believe it was probably 1970.

25 Q Do you recall who the individuals were that made
26 up that group?

27 A There was a Dr. Nickerson.

28 Q Dickerson?

1 A. Nickerson, I believe. Duncan Holiday, a
2 Dr. Hammond, and Bob Reitze, and that was it, I think.

3 Q. How long were they at the Yard?

4 A. They spent the better part of a day in the Yard.

5 Q. Do you know their purpose for touring the Yard?

6 A. Well, that group was, I think, part of Dr. Selikoff's
7 organization, and they probably wanted to familiarize themselves
8 with the working conditions of people who worked with asbestos
9 in the shipyard overhaul.

10 Q. Did you have any discussions with any members of
11 that group regarding how asbestos products were being used in
12 the shipyard?

13 A. I had brief conversations with that group. I was
14 not heavily involved with them.

15 Q. Who was the individual that was responsible for
16 leading that group through the Yard?

17 A. Web Ay.

18 Q. When you left Long Beach Naval Shipyard in February,
19 1974, did you leave your files and records there?

20 A. Yes.

21 Q. Was the dust count equipment left in good working
22 order?

23 A. Yes.

24 Q. Was your replacement hired before you left?

25 A. No.

26 Q. Do you know when a replacement finally was hired?

27 A. Oh, some three months later.

28 Q. Do you know that individual's name?

1 A. Last name was Unmark. First name was Frank.

2 Q. Do you know when Mr. Unmark began at the Yard?

3 A. I believe it was probably May of '74.

4 MR. MARDEN: Sir, I have no further questions at this
5 time.

6 Why don't we take a brief break.

7 (Brief recess taken.)

8

9 EXAMINATION

10 BY MR. NELSON:

11 Q. Mr. Manning, my name is Don Nelson. I represent
12 Raybestos-Manhattan in the San Francisco litigation.

13 Earlier, when Mr. Marden was directing questions
14 to you, he asked you about a couple of meetings that were held
15 in 1972 and one meeting that was held in 1973, the purpose of
16 which meetings was to indoctrinate shipyard personnel themselves.
17 My question is: What categories of workers were those
18 indoctrination sessions directed toward?

19 A. Those sessions, we addressed all the pipe coverers
20 and insulators, and in one of those sessions we indoctrinated
21 people who worked in the boiler shop who were involved with
22 working with asbestos materials.

23 Q. Can you be a bit more specific on what you told
24 these people about asbestos?

25 A. Well, I certainly told them about the dangers
26 involved in working with asbestos, both the possibility of
27 contracting fibrosis which was the original asbestos from
28 breathing the fibers and causing lung scarring which would

1 reduce the effectiveness of their lungs. I also pointed out
2 the danger involved with breathing asbestos whereby the
3 incidence of cancer in those people breathing asbestos was
4 increased.

5 I pointed out the effect of smoking that enhanced
6 and increased the incidence of contracting cancer. I pointed
7 out that -- we pointed out at the time that really the
8 defense that we had was probably inadequate as far as ventilation
9 was concerned, all the half-measures that we tried to apply,
10 that it was highly desirable for them to wear their
11 respirators as much and as often as they could.

12 From time to time I think included in that was I
13 pointed out that the work habits had a lot to do with how much
14 dust was put in the air, that I pointed out it was highly
15 desirable to use a knife instead of a hatchet in a rip-out,
16 and that it was good practice to put this asbestos-containing
17 waste material in plastic bags and tie it up, that good
18 housekeeping in these situations is highly desirable; that the
19 vacuum method should be used for clean up instead of sweeping,
20 et cetera.

21 Q. Did it become mandatory that these practices which
22 you recommended or instructed the workers about, that these
23 practices be followed?

24 A. All these practices became a part of the Shipyard
25 safety manual.

26 Q. Starting in 1972 or 1973 or at the same point in
27 time as these meetings were being held --

28 A. They were in effect when these meetings were held.

1 Of course, enforcement of these kind of regulations is difficult.

2 Q What do you mean by that? Were there any
3 provisions for enforcing these regulations? If so, how were
4 they enforced?

5 A Actually, there was -- any enforcement of anything
6 in the Shipyard was in the hands of the first line supervisor,
7 and this was part of the union contract which the Shipyard
8 Metal Trades Council had signed with the Shipyard commander,
9 and the enforcement was in the hands of the foreman. Adverse
10 procedures against any worker had to be initiated by foremen.
11 So that generally these kind of things to be put in effect had
12 to be accepted by the workmen, and they had to be shown it was
13 in their own interest and motivate some way to do these things.

14 Q Did most people comply, to your knowledge?

15 A In the area of wearing respirators, I would say
16 most people did not comply.

17 Q Did not comply?

18 A That's correct.

19 Q How about any other areas? For example, wearing
20 special clothing, coveralls.

21 A This they did religiously because they were issued
22 coveralls in the morning at a specific place, and to my
23 knowledge they always wore their coveralls.

24 Q Did they use vacuum methods as opposed to sweeping
25 after they were so instructed?

26 A Not always. In some cases vacuum methods were
27 not available. I was highly involved even late in my tenure
28 at the Shipyard in getting some light weight type vacuum

1 cleaners or easy to move around ones made available in the
2 Shipyard, and before I left they were available. Before that
3 there were commercial-type vacuum cleaners which were very
4 heavy and bulky, and I know at times people, in instances,
5 brooms were used.

6 I had instances brought to my attention where
7 somebody, maybe not the workers, but sometimes a habit of
8 possibly ship's crew to, what they call blow down a compartment
9 to get a nozzle of compressed air and blow that stuff all over
10 the place, and this was their idea of a cleanup. These things
11 happened.

12 In one instance I remember there was a group in
13 the Shipyard, in the Environmental Health Center in
14 Cincinnati, I had taken them into a compartment where there was
15 a rip-out in progress, and they had taken samples and observed
16 the whole thing, and I left that compartment for some other
17 purpose to meet somebody in the ship or another purpose, and
18 after that happened somebody picked up a nozzle and blew the
19 whole place down, and this was brought to the ship commander's
20 attention.

21 He says that -- of course, he said maybe that's a
22 case for some disciplinary action, which he was talking out of
23 his -- there was no way of applying disciplinary action,
24 because nobody knew who it was, first, and again, he had signed
25 a contract that the workers, if there is any disciplinary
26 action initiated, it would be by the first line foreman.

27 Q. Who was the Shipyard commander when you arrived at
28 the Long Beach Naval Shipyard?

1 A. It was Admiral Dolan.

2 Q. Do you know if he is still in the Navy?

3 A. No.

4 Q. Is he out of the Navy?

5 A. I don't know.

6 Q. How long was he Shipyard commander after you arrived
7 there?

8 A. Possibly a year.

9 Q. Who took his place?

10 A. The captain, later Admiral Hart, H-a-r-t.

11 Q. How long was Admiral Hart there?

12 A. He remained three years, I think.

13 Q. From '68 to '71, roughly?

14 A. (Indicating in the affirmative.)

15 Q. Who after Admiral Hart?

16 A. There was a Captain Fay, and he had a tour of
17 similar length.

18 Q. Was he in charge when you left in March, '75?

19 A. He had been replaced only recently by
20 Captain Doncheck, I believe his name was.

21 Q. That was back in '74, approximately?

22 A. That's correct.

23 Q. Couple other questions. Do you think -- let me
24 put it this way. What percentage of the workers, of the
25 asbestos workers at the Long Beach Shipyard do you think you
26 were able to communicate with or get your message to back in
27 '72, '73, when you were having these indoctrination sessions
28 of all the asbestos workers there? You told me the categories

1 of workers. Did you get to 100 percent of the workers? Did
2 they get the message?

3 A. I would have no way of knowing whether everybody
4 that was involved in working with asbestos got to those
5 sessions. That was not my responsibility, to see who got there
6 and who didn't, but it was my understanding that of everybody
7 involved every effort would be made to get them there.

8 Q. Did they have a sign-in sheet?

9 A. To my knowledge, no.

10 Q. In 1970, a group from the Insulation Industrial
11 Health Research Group came through the Shipyard, and you
12 indicated that Web Ay was responsible for leading this group
13 through the Yard.

14 Do you know Mr. Web Ay?

15 A. Yes.

16 Q. Do you still have contact with him now?

17 A. He is deceased.

18 Q. I am sorry.

19 A. Cancer of the lung.

20 Q. Do you know Charles Ay?

21 A. Yes.

22 Q. Do you have contact with him now?

23 A. Not on a regular basis. I have -- last time I
24 saw Charles Ay was at the trial in which I testified, the
25 Hogard trial. I believe he was in attendance, and I saw him
26 and briefly talked with him.

27 Q. Were you and Charles Ay at the Long Beach Shipyard
28 during at least some period of time in common? Is that right?

1 A. I think the entire period.

2 Q. Do you know what his job was there?

3 A. He was a pipe coverer and insulator, and at one
4 time he was a foreman. Pipe covering insulator some period of
5 time.

6 Q. In performing your duties as industrial hygienist
7 at the Shipyard, in the course of your duties did you ever have
8 occasion to have professional contact with him? In other words
9 did you work --

10 A. Would you rephrase the question for me?

11 Q. Sure. Did you ever work with Charles Ay in the
12 course of performing your job as industrial hygienist?

13 A. No.

14 Q. How did you first come to know him?

15 A. I had contact with numerous people that worked in
16 the Shipyard, and he was one of them. I didn't have any great
17 contact with Charlie Ay.

18 I first met him when I was a worker, I think, and
19 he had, as I recall, some kind of complaint about smoke getting
20 into a compartment in which he was working.

21 Q. Do you recall when you first met him, Mr. Manning?

22 A. Probably 1967, sometime thereabouts. It was when
23 the U.S.S. NEW JERSEY was being overhauled in the Shipyard,
24 and I recall that he was one of the complainants and that I
25 met him there and, of course, knew who he was, the Ay family
26 being not too widely a known name, and over the course of time
27 I would have contact with him.

28 I think I took samples in situations where he was

1 the foreman. That was about it.

2 Q In what situations was he the foreman where you
3 took samples?

4 A Well, I recall one instance where I was called out
5 by Web.

6 Q That's his father, for the record; right?

7 A Huh?

8 Q Web is Charlie's father, for the record?

9 A Yes. Asked by Web to check out a situation that
10 was aboard a tanker and where there was some, supposedly some
11 exposure, and I took samples, and Charlie happened to be the
12 foreman in charge of the group that was working.

13 Q Aboard the ship?

14 A Yes.

15 MR. NELSON: Thank you, Mr. Manning. I have no further
16 questions.

17

18 EXAMINATION

19 BY MR. DICKERSON:

20 Q Mr. Manning, my name is John Dickerson. I represent
21 Celotex Corporation in the Bay Area litigation.

22 You mentioned a Long Beach Shipyard employee earlier
23 today by the name of Robert Manning. Is that any relation
24 to you?

25 A No.

26 Q You also mentioned that you had a job description
27 when you were hired. Has it ever been reduced to writing?

28 A Yes. My recollection would be that's in the

1 records somewhere in the first deposition, and it was part of
2 a large number of documents that were subpoenaed and transcribed.

3 Q Well, as long as we know where to get it.

4 Also, between 1963 and 1967, as I understand it,
5 there was no industrial hygienist at all at the Long Beach
6 Shipyard; is that right?

7 A Yes.

8 Q Was there somebody at the Long Beach Shipyard who
9 performed a substantial percentage of the duties described in
10 your job description during that four-year period?

11 A Two and a half year period, I believe.

12 Q Okay. I have it down as '63 to '67, but --

13 A Whatever. '64 to mid '67, I guess.

14 Q Was there anybody at the Shipyard who performed a
15 substantial portion of what is listed on your job description?

16 A Best of my knowledge, the safety department
17 attempted to fill in in that area. I know that at least one
18 individual in the industrial laboratory was going some,
19 answering some questions and doing some work in this area.

20 Q What was his name?

21 A Well, in regard possibly to toxicity or shipping
22 dangerous materials. The reason I know this, I walked into his
23 office and heard him in telephone conversation telling somebody
24 giving out information in this area, and he had the textbook
25 written by Sax that I mentioned in front of him, and he was
26 giving out information.

27 Q Can you tell me the name of this individual?

28 A His last name was Levetan. I can't remember his

1 first name.

2 Q Do you know if he is still at the Shipyard?

3 A No. He retired soon after I came aboard.

4 Q Do you know if the safety department was doing any
5 dust counts between in that two and a half year period we are
6 talking about in the mid '60's?

7 A The safety department didn't have any such
8 capability.

9 Q As a matter of fact, the capability to do dust
10 counts didn't exist until sometime after you were hired; is
11 that right?

12 A No. Bill Marr took some dust counts during his
13 tenure.

14 Q Well, what I am getting at: To your knowledge,
15 what happened to the equipment and so forth between the time
16 Marr left and the time you arranged to have the proper
17 equipment in about 1968?

18 A Bill Marr borrowed the equipment that he used to
19 make his study from the California Department of Health, and it
20 was a Bausch & Lomb dust counter, and I heard this when I
21 visited that office and talked to Paul Kaplan, and this
22 particular dust counter is not the one prescribed in the
23 standard procedure then in effect for counting dust. This is
24 one of the criticisms in Marr's study that really the dust
25 counts were not done in the prescribed method.

26 Q Can you tell me who manufactured the Midget
27 impingers that you used while you were at Long Beach?

28 A No, I don't know.

1 Q To your knowledge, were there any disciplinary
2 proceedings initiated against any pipe coverers or insulators
3 at Long Beach for failure to comply with asbestos safety rules
4 while you were there?

5 A No.

6 Q Were you ever involved when you were at the Long
7 Beach Shipyard in an effort to remove any one particular brand
8 of pipe covering from the Shipyard?

9 A No.

10 Q To your knowledge, was there ever such an effort
11 made?

12 A Yes. Prior to my arrival and afterward there was
13 an effort made by people who -- well, Web Ay, other people,
14 to eliminate the material I believe was called Unibestos that
15 contained almost a hundred percent amosite, and I guess was
16 manufactured by Pittsburgh-Corning Manufacturing Company,
17 among other people.

18 Q To your knowledge, was there ever an effort made
19 to remove any other pipe covering product by Web Ay or
20 Charlie Ay or any of the other pipe coverer insulators?

21 A As part of the effort as it developed over a period
22 of years it became plain to me and other people who were
23 involved in this that the elimination of this problem totally
24 involved 100 percent substitution of other materials for
25 asbestos in the contents of shipyard overhaul.

26 Somewhere along the line, very early, there were
27 efforts made to reach people in authority who had responsibility
28 for acquiring materials for making that.

1 Q Who are the people in authority who was responsible
2 for acquiring materials, or who were they when the effort was
3 made to eliminate asbestos?

4 A Well, there is --

5 Q I don't mean specific names, but what would their
6 job titles be?

7 A I don't know their job titles. There were people
8 who were deep in the bureaucracy in Washington in the office
9 of material command whose job it was to first write up
10 specifications for these materials and other people who were
11 involved in signing contracts for the purchase of these
12 materials.

13 Q Can you tell me what time period we are talking
14 about here? When did this start, this effort?

15 A This effort?

16 Q Yes.

17 A Well, in that first report that I wrote dated,
18 I think 1969, I recall making the statement in view of the fact
19 that asbestos materials are implicated in the higher incidence
20 of cancer and asbestos workers, that it's very difficult to see
21 what kind of level of exposure, if any, would be safe.

22 Q Who besides you was involved in this effort?

23 A Web Ay, among others, tried to get the message
24 across. There were several meetings with the shipyard commander
25 in which I accompanied an officer from the Bureau of Medicine
26 in Washington, and we went up and --

27 Q When you say "I accompanied to this meeting," you
28 mean Sheldon Manning and not Web Ay?

1 A. Yes.

2 Q. I just want the record to be clear on that. The
3 same thing about Sheldon Manning's report and not Webster Ay's
4 report? The report you wrote?

5 A. Yes.

6 Q. You were going to the shipyard commander?

7 A. In my level, it was very difficult to communicate
8 with people who were in Washington and responsible for this,
9 and I never did get any direct communication with them. I had
10 to work through other people, and so did Web Ay, and I had
11 thought that possibly the people in BUMED who was kind of
12 responsible would have some kind of influence. Apparently
13 they did not have enough at that time anyway to reach these
14 people.

15 Q. So the bottom line is you were more or less
16 unsuccessful in this effort; is that correct?

17 A. Bottom line is that gradually over a period of time
18 while I was there, for instance, last cloth was substituted
19 for asbestos cloth in the pad shop, and there were instances
20 when the asbestos would reappear. Gradually there appeared in
21 the Shipyard preformed insulation material that used glass as
22 a binder instead of asbestos. I think over that period of time
23 I believe Web said, "Well, we have reduced maybe 40 percent of
24 what we were using sometime prior to that," maybe when they
25 were using all asbestos materials. There was some progress in
26 this area. We just couldn't stop it altogether.

27 Q. I didn't mean to interrupt you.

28 A. And, of course, the big problem was that every ship

1 in the Navy had asbestos material, probably, covering pipes
2 and boilers, and this stuff had to be removed on overhaul, and
3 this is where a very large part of your exposure lay.

4 Q Have you ever been to a shipyard at Mare Island in
5 Vallejo, California?

6 A No.

7 Q Do you have any first-hand knowledge at all
8 concerning the asbestos hazard control program at Mare Island
9 in their shipyard?

10 A No.

11 MR. DICKERSON: That's all I have. Thank you.

12 MS. GRASSI: I have no questions.

13 MR. SHEPHERD: I have just a few, Mr. Manning.

14

15 EXAMINATION

16 BY MR. SHEPHERD:

17 Q My name is Michael Shepherd, and I am representing
18 GAF Corporation in the San Francisco litigation.

19 You testified earlier about the memorandum you
20 wrote to Commander Smith which you said was designed to bring
21 the problem to his attention and to, I guess, encourage him to
22 be more aggressive in his approach to the situation. What was
23 Commander Smith's reaction?

24 A There was a reply written with that memorandum,
25 signed by Commander Smith, I believe written by an administrative
26 officer. There was some concessions made.

27 Much of that memorandum reply was rather negative.
28 I think the administrative officer's attitude more or less

1 formed by the attitude of the previous medical officer,
2 Captain Watkins, during the time he was the administrative
3 officer, he had charge of the budget, and he was not very
4 supportive of my program. I think partly because of ignorance,
5 partly because he was influenced by the previous medical
6 officer's attitude. Does that answer your question?

7 Q Yes, it does. Thank you. Do you feel that the
8 one and a half year delay in receiving the recommended coveralls
9 was a reflection of his, as you have characterized it, lack
10 of an aggressive support of the program?

11 A In answer to your question, I would say this, that
12 the decision as to implementing that program or not was not,
13 I don't believe, left in his hands. My understanding of what
14 happened was that the production officer interceded, was given
15 the authority to deal with this, and as is, with officers with
16 high rank in the Navy, Captain Chapman probably was very familiar
17 with the job of overhauling ships or possibly using ships in
18 combat, and as he dealt with things further and further from
19 that area, he was less knowledgeable, and with people with
20 this kind of authority, tend to make snap decisions and with
21 quick and easy solutions to complex problems is the way it
22 turns out.

23 I think the weakness here is that these people did
24 not rely on the judgment of people who were hired, like myself,
25 to work in special areas which he probably had little knowledge.
26 That probably was the weakness of all bureaucracies.

27 Q At the meetings that were held in 1972 and '73
28 that we discussed earlier, you said you recommended the use of

1 respirators. Was this a suggestion coordinated with a plan
2 for larger ventilation procedures, burning holes in the side
3 of the ship, for example?

4 A. As control measures progressed, there were attempts
5 to increase the ventilation in these spaces, but by the nature
6 of construction of ships, the fact that it is not healthy and
7 you have limited access to these compartments, there is a limit
8 to how much ventilation you can put in.

9 To point out, one of the answers was to burn holes
10 in the side not only to better ventilation for these
11 compartments, but it made it easier to eliminate waste materials,
12 also. There is a limit to how many holes you can burn in a
13 ship, also. Generally it is limited to maybe the boiler room.

14 Q. Assuming that both the ventilation and respirator
15 procedures could be implemented, would you find one procedure
16 more beneficial or more useful than another, or would you
17 recommend respirators in reference to other ventilation efforts?

18 A. You are probably asking two questions. I will
19 answer this way: In the context of overhauling ships in Naval
20 shipyards, it is my opinion that there was no way of supplying
21 enough ventilation to eliminate the hazard.

22 To your question about the effect of respirators,
23 it is well-known and in industrial hygiene practice and taught
24 in, for instance, by the U.S. Public Health Service, that the
25 type of respirator that we are referring to should not be
26 relied on exclusively for elimination of any hazard, that these
27 things should only be used for a fairly short period of time
28 until proper and adequate procedures, other engineering

1 procedures or whatever can be applied.

2 Does that answer your question?

3 Q Yes. Thank you. One other thing. One other line
4 of questioning I would like to pursue.

5 You mentioned that Art Raymond who is a
6 superintendent of Shop 56 pointed out, please correct me if I
7 am characterizing your testimony improperly, that with the use
8 of proper tools, the workers could hold down the amount of
9 dust produced. Is that correct?

10 A Yes.

11 Q Did you find in your review of this recommendation
12 or this suggestion that proper tools were not available to the
13 workers?

14 A Proper tools were available.

15 MR. SHEPHERD: Very good. Thank you very much.

16

17 EXAMINATION (RESUMED)

18 BY MR. NELSON:

19 Q Mr. Manning, who was Commander Smith? What
20 specifically was his job title? What did he do at the Shipyard?

21 A His job title was medical officer of the Naval
22 Shipyard.

23 Q And he reported to the Shipyard commander?

24 A He reported directly to the Shipyard commander.

25 MR. NELSON: Thank you very much.

26 THE WITNESS: Later on when the administrative change
27 came, why, of course, the setup changed then which occurred in
28 August of 1972, and then he would report to the head of the

1 Naval Regional Medical Center.

2 MR. NELSON: Do you know if he is still in the Navy?

3 THE WITNESS: He is not in the Navy. He is retired.

4 MR. NELSON: Do you know when that was?

5 THE WITNESS: Not specifically. It was maybe a couple of
6 years after I left.

7 MR. NELSON: Thank you, sir.

8

9 EXAMINATION (RESUMED)

10 BY MR. DICKERSON:

11 Q Just one more. The Naval Regional Medical Center,
12 is it true this is an organization rather than the name of a
13 building or something like that?

14 A The Naval Regional Medical Center is an organization.

15 Q It's not a specific hospital or anything like that?

16 A Encompasses, among other things, the Long Beach
17 Naval Hospital and other facilities.

18 MR. DICKERSON: Thank you.

19 MR. CARLSON: Any other questions around the table?

20

21 EXAMINATION

22 BY MR. CARLSON:

23 Q Mr. Manning, when you were employed with the
24 Pennsylvania Department of Health, what were your job duties?

25 A Well, again, it was involved, the thumbnail
26 definition of what is an industrial hygienist, and it's the
27 recognition and evaluation and control of industrial health
28 hazards, specifically in trying to --

1 The kind of work that I was involved in was
2 inspection of industrial plants, in large part, to discover
3 whether or not there were industrial health hazards that were
4 not controlled.

5 If, in the event I found a situation that I thought
6 might be out of control or needed to be defined, I would then
7 go in later and take samples and make measurements and try to
8 define the situation.

9 If in fact I thought it was out of control, I then
10 wrote -- in any event, wrote a report, but if it was out of
11 control, then wrote a report containing recommendations
12 designed to control the problem, whatever it was.

13 Q These were private industry shops or facilities you
14 were touring; is that correct?

15 A Yes, for the most part.

16 Q Did you ever find any situations where it was
17 required to make recommendations to curb some potential hazards?

18 MR. MARDEN: Throughout the entire period?

19 MR. CARLSON: Yes.

20 THE WITNESS: Yes.

21 Q BY MR. CARLSON: And did you ever encounter any
22 resistance on the employer's part in implementing those
23 recommendations?

24 A Sometimes.

25 Q How long was the maximum time that you can recall
26 between you recommending a safety change and that change being
27 implemented?

28 A Sometimes a year.

1 Q. Mr. Manning, when was the first time you ever heard
2 about the fact that asbestos when breathed caused a health
3 problem to human beings?

4 A. Soon after I started to work as industrial hygienist
5 I became aware of a list of potentially hazardous materials,
6 and early on which would have been, would have some knowledge
7 that asbestos would cause fibrosis.

8 Q. This is around 1961 or '62, sometime around there?

9 A. 1961.

10 Q. When you first became aware of asbestos as a
11 potential health hazard, was it your understanding that the
12 danger in working with asbestos was to mine workers and factory
13 workers rather than to people using the end products?

14 MR. MARDEN: I am going to object to that question on
15 the ground it is vague and ambiguous.

16 MR. NELSON: Can we have a stipulation that the objection
17 of one defendant is the objection of all?

18 MR. CARLSON: Always.

19 Q. Do you want me to repeat it?

20 A. Rephrase the question.

21 Q. Let me ask it again. At the time that you first
22 heard that asbestos was a health problem, was it your
23 understanding that the danger in working with the asbestos
24 was to mine workers and factory workers rather than to people
25 using asbestos products?

26 A. No.

27 Q. As of February, 1968, did you ever hear of or see
28 any warnings on any asbestos insulation products at the

1 Long Beach Naval Shipyard?

2 A. Best of my knowledge, no.

3 Q. At any time subsequent to that date did you ever
4 hear of or see any warning on asbestos insulation products at
5 the Long Beach Naval Shipyard?

6 A. Yes.

7 Q. When was the first time?

8 A. Actually printed on the container, it would have
9 been, I think, '70, '71, somewhere in there.

10 Q. Do you remember what type of product it was that
11 you saw that on?

12 A. Preformed insulation, boxes.

13 Q. Do you remember in substance what the warning
14 stated?

15 A. Not really.

16 Q. As you sit here today, can you recall whether, when
17 seeing the warning, you felt it was an adequate warning?

18 MR. MARDEN: I am going to object on the grounds that --

19 Well, we have got all the objections but form of
20 the question reserved to trial; right?

21 MR. CARLSON: Always.

22 MR. MARDEN: No objection at this time.

23 MR. NELSON: I will object on the ground it asks the
24 witness to speculate and form an opinion as to that which is
25 "adequate."

26 Q. BY MR. CARLSON: What I mean by "adequate,"
27 Mr. Manning, is you, as an industrial hygienist, did you feel
28 it adequately told the worker of the potential warnings? I

1 mean the potential hazards of working with the product.

2 A. I would say no.

3 Q. At any time have you ever heard of a Fleescher-
4 Drinker Report?

5 A. Yes.

6 Q. When would be the first time you heard of that?

7 A. Oh, sometime in early '60's when I worked for the
8 Pennsylvania Department of Health.

9 Q. Can you recall what it is you heard about it at
10 that time?

11 A. I should think the report was part -- the
12 Fleescher-Drinker Report was part of the background material
13 in the nature that dealt with asbestos -- or Drinker and
14 Hatch wrote a book, I think, entitled Industrial Dust, which is
15 one of the references used in the business of industrial
16 hygiene, and I read the report, parts of that book, and that's
17 about the way I learned about what was in that report.

18 Q. Do you recall from that report what segment of the
19 population studied was exposed to asbestos over 20 years?

20 A. No.

21 Q. There was a mention of an Insulation Industrial
22 Health Hygiene Institute who apparently toured Long Beach Naval
23 Shipyard in 1970.

24 Do you recall that question?

25 A. Yes.

26 Q. Do you know whether any of the individuals who
27 toured the Long Beach Naval Shipyard were employed by the
28 asbestos industry?

1 A. Yes, Bob Reitze was employed by Johns-Mansville
2 Corporation.

3 Q. Did Bob Reitze or any of the other individuals on
4 that tour give you or anyone, to your knowledge, any
5 information regarding the suppression of asbestos dust or the
6 health hazard problem?

7 MR. MARDEN: I will object on the ground it's compound.

8 Q. BY MR. CARLSON: Why don't you answer either half.

9 A. Bob Reitze and I at that particular time had very
10 brief conversation, and to the best of my recollection what we
11 talked about was the upcoming new method of counting dust
12 which involved the membrane filter, and I think that was about
13 it. His time was taken up by other individuals. He did not
14 specifically come up with any recommendations that I recall.

15 Q. At any time prior to that 1970 tour, were you ever
16 contacted in person or in writing by any representative of any
17 asbestos company?

18 A. No.

19 Q. At any time prior to 1970, were you ever made
20 aware of any brochures or safety instructional manuals published
21 by any asbestos company?

22 A. Prior to what?

23 Q. 1970.

24 A. No.

25 Q. At the indoctrination meetings which you held, did
26 you imply to the people in attendance that if they wore a
27 respirator they had little or no risk of getting any asbestos-
28 related disease?

1 A. No.

2 Q. Did you tell those people in attendance to wear
3 a respirator when working with asbestos?

4 A. Yes.

5 Q. Did you tell them that the respirators that they
6 would be wearing were ineffective?

7 A. No.

8 Q. Did you tell them that the respirators were
9 effective in suppression of asbestos dust?

10 A. I told them that when and if they wore a
11 respirator that they were effective.

12 Q. When was the first time, if ever, that an
13 individual representing any asbestos company contacted you while
14 you were at Long Beach Naval Shipyard regarding the safety or
15 health hazards to do with asbestos?

16 A. I was never contacted by any manufacturer's
17 representative while I was at the Shipyard.

18 Q. Have you ever been exposed to asbestos, Mr. Manning?

19 A. Yes.

20 Q. Where were you exposed to asbestos?

21 A. Initially, I was exposed in various occasions when
22 I worked for the Pennsylvania Department of Health. I was
23 exposed to asbestos when I took samples next to the man that was
24 working in the Shipyard.

25 Q. Have you been told by any doctor that you have an
26 asbestos-related illness?

27 A. Yes.

28 MR. CARLSON: I have no other questions.

EXAMINATION (RESUMED)

BY MR. NELSON:

Q. Have you ever been a plaintiff in an asbestos-related lawsuit?

A. Yes.

Q. Is that still a viable lawsuit?

A. Yes, in part.

Q. In other words, it has not been drawn to a conclusion?

A. My understanding is there is one that has been passed back. It has been appealed.

Q. I didn't understand.

A. It's on appeal.

Q. Did you hire a lawyer on your behalf in the Los Angeles County Superior Court?

A. Yes.

Q. Who was that lawyer?

A. Robert Steinberg; Rose, Klein & Marias.

Q. Was there actually a trial held?

A. No.

Q. Do you know what the nature of the appeal is?

MR. CARLSON: There is a lawsuit pending. It's not an appeal.

THE WITNESS: Is it? I don't know.

MR. NELSON: Thank you, Mr. Manning.

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EXAMINATION (RESUMED)

BY MR. MARDEN:

Q. When you were at the Long Beach Naval Shipyard, did you ever wear a respirator of any type while taking a dust survey on asbestos insulation products?

A. Yes.

Q. Was it your usual, common practice to wear a respirator?

A. Yes.

Q. Now, while you were with the Pennsylvania Department of Health, did you ever wear a respirator while taking a dust count regarding asbestos?

A. No.

Q. Can you tell us the reason for that?

A. Number one, there were none available; and number two, it was regarded in industrial hygiene practices not good practice to go into a place wearing a respirator and begging the question and alarming the workers. The thought behind all this was that probably the industrial hygienist was involved in limited exposure and possibly it was just part of the territory and part of the job to be exposed to materials that were being checked out.

Q. While you were with the Pennsylvania Department of Health, part of your responsibilities was to inspect asbestos manufacturing facilities?

A. Yes.

Q. Now, were these facilities manufacturing finished asbestos products from raw asbestos fiber?

1 A. Yes.

2 Q. Now, throughout your entire period of employment
3 at the Long Beach Naval Shipyard, you had difficulty in
4 communicating with the authorities back in Washington, D.C.;
5 is that correct?

6 A. Yes. The answer would be yes.

7 Q. Do you have any knowledge, sir, of whether any
8 manufacturers of finished asbestos insulation products were
9 in contact with the authorities back in Washington, D.C.,
10 regarding potential health hazards or safety programs?

11 A. I would have no knowledge of that.

12 MR. MARDEN: Thank you, sir. I have no further questions
13 at this time.

14

15 EXAMINATION (RESUMED)

16 BY MR. DICKERSON:

17 Q. Earlier, Mr. Carlson asked you if you thought the
18 warning you saw on the box in 1971 was adequate. I would like
19 to ask the same question of you regarding the meetings that
20 were conducted in the beginning, in the late '60's, also in
21 '72 and '73. Were they adequate?

22 MR. CARLSON: For what purposes?

23 Q. BY MR. DICKERSON: Following your question to
24 warn the workers of the dangers.

25 A. Yes.

26 Q. Now, if you took --

27 Forget that. That's all I have. Thank you.

28 MR. MARDEN: One final question.

EXAMINATION (RESUMED)

BY MR. MARDEN:

Q. Sir, while you were employed at Long Beach Naval Shipyard, did you ever happen to have contact with an individual by the name of John Robinson?

A. It's possible that I had some fleeting contact. I have vague memories of two of Web Ay's son-in-laws who were, at one time, foremen, and the contact would have been a one-on-one situation that was not very extensive.

I, in the course of my work, would possibly have to contact people who were foremen or had some prior knowledge of where work would be, and these kind of discussions, it's possible that I talked to many foremen.

Q. To your recollection, sir, was John Robinson a foreman during your period of employment at Long Beach -- let me strike that. It's poorly phrased.

To your recollection, sir, did John Robinson act as a foreman?

A. My knowledge of that would be that I knew that Web Ay had two son-in-laws who were foremen at the Shipyard, and putting John Robinson and foremen together, I mean, I just --

I have no way of knowing. I really -- John Robinson is a vague name to me.

MR. MARDEN: Thank you. I have no further questions.

I don't believe anybody else does. Thank you for your time today.

Off the record..

(Discussion off the record.)

1 MR. MARDEN: To the discussion of the signature, the
2 signing of the deposition, because Judge Minder ruled last
3 Friday the trial was not to begin before September 28th, we
4 feel there is adequate time to allow Mr. Manning the 30 days
5 in which to read and make any necessary changes in his
6 deposition.

7 It has also been stipulated that the original of
8 the deposition be sent to the office of Moore, Clifford for
9 control until trial.

10 MR. CARLSON: And what will be done with the copy that
11 Mr. Manning is to see? Will it be provided to him, or is he
12 going to have to go somewhere to read it?

13 MR. MARDEN: I have no objection to having a copy sent
14 to Mr. Manning at his residence and then allowing him the
15 opportunity to review it.

16 MR. CARLSON: I think it would be a lot easier for him,
17 rather than having him drive somewhere.

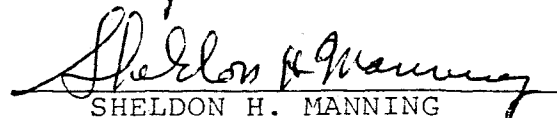
18 MR. MARDEN: Is that agreeable, Mr. Manning?

19 THE WITNESS: Yes.

20 MR. MARDEN: Thank you very much. That's all.

21
22 (The undersigned, being fully aware of
23 the pains and penalties of perjury,
24 solemnly affirms the truth and veracity
25 of the foregoing testimony.)

26 Executed at Norwalk Ct, on
27 this 12 day of September, 1981.

28 
SHELDON H. MANNING

1 STATE OF CALIFORNIA)
 2) ss.
 3 County of Los Angeles)

4 I, WILLIAM R. PAY, CSR No. 1228,
 5 a Notary Public in and for the County of Los Angeles
 6 State of California, do hereby certify:

7 THAT prior to being examined, SHELDON H. MANNING,
 8 the witness named in the foregoing deposition, was by me duly
 9 sworn to testify the truth, the whole truth and nothing but
 10 the truth;

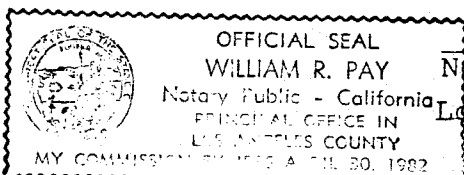
11 THAT said deposition was taken before me pursuant to
 12 Notice, at the time and place therein stated,
 13 and was taken down by me in shorthand and thereafter
 14 transcribed into typewriting under my direction and supervision,
 15 and is a true record of the testimony given by the witness;

16 THAT it was stipulated by and between counsel that the
 17 reporter may be relieved of his duties and responsibilities
 18 under Section 2019 (e) and (f) of the Code of Civil Procedure;

19 THAT it was stipulated by and between counsel that said
 20 deposition may be read, corrected and signed by the witness
 21 under penalty of perjury.

22 I further certify that I am neither counsel for nor
 23 related to any party to said action, nor in anywise interested
 24 in the outcome thereof.

25 IN WITNESS WHEREOF, I have hereunto subscribed my name
 26 and affixed my seal this 17 day of September, 1981.



Notary Public in and for the County of
Los Angeles, State of California

Manniney, Sheldon

12/21/80

FILE COPY

MEMO TO D. Markussen

IN RE:

Hance vs. Johns-Manville
-Deposition of S. Manning

Trial Date: Not Set
Conf. Date: Not Set
Trial Atty: Unassigned

HAIGHT, DICKSON, BROWN & BOND
LOS ANGELES, CALIFORNIA
NEWPORT BEACH, CALIFORNIA

December 15, 1980

The deposition of Mr. Manning was taken pursuant to subpoena on December 12, 1980, in our offices in Santa Monica. The undersigned appeared on behalf of Johns-Manville. Bill Kelly appeared on behalf of the plaintiff. Mr. Manning was represented during the morning session of the deposition by Mr. Steinberg. In the afternoon session, he was not represented.

IMPRESSION OF THE WITNESS

Mr. Manning is a very pleasant man in his early sixties, who appears to be his stated age. He has a habit of pulling on his mustache, which is somewhat distracting and talking into his hands. He also is experiencing great difficulty in breathing and has to take frequent gulps of air to finish sentences. He is intelligent and fairly forthright, and I would say that he would make a good witness on his own behalf, however, his breathing problem is so pronounced that his deposition would read better than his actual performance.

BACKGROUND

Mr. Manning graduated from Penn State University in 1943, with a Bachelor of Science in Commercial Chemistry. From 1943 to 1945, he worked for Hooker Chemical as a chemical operator in Niagara Falls. From 1945 to 1946, he drove a truck. From 1947 to September of 1961, he worked for Bethlehem Steel as a chemist in quality control. From September 1961 to March of 1967, he worked for the Commonwealth of Pennsylvania as an industrial hygienist. He was trained in the job and also took a course, given by the United States Public Health Service in 1962.

He can recall that he had been a member of the Navy Industrial Hygiene Association and the American Conference of Governmental Industrial Hygienists.

Long Beach Naval Shipyard - Mr. Manning served as an industrial hygienist at the Long Beach Naval Shipyard from March 1967 to February 1974. He felt his basic duties as a shipyard industrial hygienist were similar to that he experienced working for the Commonwealth of Pennsylvania, however, in the shipyard he had very little enforcement capability. He only served in an advisory capacity. The witness described the chain of command, should he spot a violation, as follows: He would have to report it to his superior, which was the chief medical officer, who would then have to report it up the line, to the commander of the shipyard, and down the line through the production department

MEMO TO D. Markussen

IN RE:

Hance vs. Johns-Manville, et al
Deposition of S. Manning.

Trial Date: Not Set
Conf. Date: Not Set
Trial Atty: Unassigned

HAIGHT, DICKSON, BROWN & BONESTEEL
LOS ANGELES, CALIFORNIA

NEWPORT BEACH, CALIFORNIA

December 15, 1980

Page Three

available at other locations in the shipyard. He beleives that from May 1967 to October 1968, there was a Navy rule or instruction that insulators and insulator helpers had to respirators when working with asbestos. Since the witness had no enforcement, he indicated that the enforcement power would be the first line foreman.

The witness testified that he had discussions in February 1968 with the insulators and insulator helpers. He could not be sure that he got them all, but he beleives that the shop called them in and certainly whereby Weeby was very involved in this. They covered more than one shift. He was aware at this time of Dr. Selikoff's 1964 works and he talked to the men about asbestosis and cancer and beleives that may have even indicated the connection between smoking and cancer. He did tell the insulators and the insulator helpers to wear respirators and to use good housekeeping procedures when working with asbestos.

PRODUCTS IDENTIFICATION

The witness testified that he beleived 70% of the products he saw at the shipyard had a Johns-Manville label on them. He did not know whether or not the boxes were, in fact, a non-asbestos containing products, or if, in fact, they were other products, other than thermal insulation, manufactured by Johns-Manville. However, he did see Raybestos-Manhattan cloth, Phillip Carey products, Eagle Pitcher products, Pabco, Kaylo and Unibestos (only one occasion). He saw these various products at the shipyard, at locations outside of the shop, on barges, piers and warehouses. He believed that cloth was in cardboard cartons but he was not certain.

MEDICAL OFFICERS

In a very frank discussion, Mr. Manning indicated that he felt that the medical officers, who he worked under were a little paranoid about what industrial hygenists could do. He stated that Dr. Watkins was not helpful at all. Dr. Watkins refused his permission to put anything down in writing and made him make all reports directly to Dr. Watkins before taking any actions. The witness reported that when Captain Smith took over from Dr. Watkins, it took the witness some time to get Dr. Smith's attention that there were problems at the shipyard. He did not seem concerned. However, Smith did allow written reports.

EXHIBIT E

Defendants' Exhibit E is a June 30, 1970 memorandum of Mr. Manning's, in which he relates to Captain Smith all the problems with industrial hygiene billet, the shipyard.

MT-PWHD-013054

MEMO TO

D. Markussen

HAIGHT, DICKSON, BROWN & BONESTEEL

LOS ANGELES, CALIFORNIA

NEWPORT BEACH, CALIFORNIA

December 15, 1980

IN RE:

Hance vs. Johns-Manville, et al
Deposition of S. Manning.

Trial Date: Not Set

Conf. Date: Not Set

Trial Atty: Unassigned

PRIVILEGED
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Page Two

to enforce or change the practice.

At the time he entered the Long Beach Naval Shipyard, there were 8,500 individuals working there. He was the sole industrial hygienist and he testified that all of the shipyards had more industrial hygienist except for Philadelphia, which had the same number. He tried to submit budgets over the years, but he never was successful.

He was faced with no equipment and it was not until June of 1968 that he got dust equipment. He did not get a phone for three years and he indicated that was an essential tool for an industrial hygienist. There was nothing left by Mr. Moore, who he learned had left in the fall of 1964 and went to the Canal Zone for advancement. The witness that the job of industrial hygienist was actually abolished, until he took the job. He believed that during that span of time, there were rules and regulations in force at the shipyard, that mandated that they have an industrial hygienist, but they did not.

He felt that was not until 1971 or 1972 that he was equipped enough to perform the necessary tasks as an industrial hygienist.

EXHIBIT A

Defendants Exhibit A is BuMed instructions 6270.3d, dated February 1966, which shows the T.L.V. of 5 million particles/cubic foot for asbestos. The witness described T.L.V.'s generally as being the value at which medical and scientific evidence would seem to indicate no disease process would occur.

EXHIBITS B, C, D

Defendants Exhibits B, C and D are safety assurance bulletins dated April 1965 and a single page of text concerning asbestos control. The witness identified the document as seeing it, and believed it was enforced in effect at the time he arrived at Long Beach Naval Shipyard. The document calls for general ventilation to be used, exhaust hoods on tools, respirator use and use of industrial vacuum cleaners.

The witness believed that when he arrived there was good ventilation in the pad ship, however, changes were made sometime during a ten year. He believes that he took dust counts both before renovations and after and that before the count was .7 million particle/cubic foot and after it was .26 million particles/cubic foot.

The Witness also indicated that respirator use was intermittent at best. The employees on the ships working on asbestos were supplied with dust respirators and if not, they were certainly

MT-PWHD-013055

MEMO TO D. Markussen

HAIGHT, DICKSON, BROWN & BONESTEEL

IN RE:

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Deposition of S. Manning

LOS ANGELES, CALIFORNIA

NEWPORT BEACH, CALIFORNIA

December 15, 1980

Trial Date: Not Set
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Trial Atty: Unassigned

PRIVILEGED
J-M 83

Page Four

Interestingly, since he had no secretary, he was asked where he got this typed. He indicated that he hired an outside secretarial service to do it and paid out of his own pocket.

He testified that everything written in there were his true feelings at the time, and he still supports them.

RESPIRATOR USE

The witness indicated that the respirator use was not usually acceptable to workers because there was resistance to breathing and it was uncomfortable. He indicated there should be as much ventilation as possible, but even under the circumstances he did recommend to wear respirators. He felt however, that normally, dust respirators are used for "emergency situations" until better controlled methods could be installed.

RIP-OUT

He felt that the greatest exposure was aboard ships during rip out operations. He was not notified when a rip out was going on, but he made some inquiries occasionally and became quite good at finding out when these would occur.

Steven L. Hoch

lh

29/39

1h

Steven L. Hoch

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RIP-OUT

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RESPIRATOR USE

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Trial Atty: Unassigned
Conf. Date: Not Set
Trial Date: Not Set

Deposition of S. Manning
Hance vs. Johns-Manville, et al

MEMO TO
IN RE:

D. Markussen

HAIGHT, DICKSON, BROWN & BONESTEELE
LOS ANGELES, CALIFORNIA

NEWPORT BEACH, CALIFORNIA
September 15, 1980

Page Four

7-M 83
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Manning

1. Very little ind hyg. enforcement capability - advisory
2. Only hyg @ Facility of 8500 (p. 11) except Phil. All others had more hyg. than the 1 @ L.B. (p. 12)
3. No budget, no equip (p. 13)
4. No hyg fall 64 to 3/67 as req.
5. No equip till 6/68 (p. 15)
6. BOILED standard 2/15/66 5 mopef (p. 19)
7. Were Navy rules @ L.B. (p. 21)
8. Ventilation in rad ship (p. 24)

9. Respirators available (p 26)

10. Rule to wear resp. (27)

Mike Hance re
enforcement of rule +
existence of rule

Fireman enforce

11. Webby induction
meetings on resp (p 28)

X - exam Hance

12. Manning meetings (p 28)

X - exam Hance

13. Controls not adequate
@ R.B. (p 31)

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14. R-M + Cloth (p. 33)

15. Cloth in boxes (p. 35)

JM mat in boxes

16. Navy mat care about
program (p. 39)

17. Good pad ship
conditions (69)

18. Pad Ship below THX (70)

19. Warnings - mat
remember (79)

20. Rente 3/69 (81)

PRIVILEGED
J-M 83

29/40

DOMESTIC
18 11 1

~~MANNING~~
CAPTION OF CASE **FILE COPY**

Now comes the defendant, Johns-Manville Sales Corporation, and makes the following objections to certain portions of the deposition of Sheldon H. Manning taken on December 12, 1980, which portions have been designated by the plaintiff to be read to the jury.

Page 47, Lines 16-28 (Irrelevant)

Page 51, Lines 21-28 (Irrelevant)

Page 52, Lines 1-3 (Irrelevant)

Page 53, Lines 26-28	(Irrelevant to insulation products, non-specific, inaccurate)
Page 54, Lines 1-15	

PRIVILEGED
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Page 56, Lines 16-28 (Irrelevant)

Page 57, Lines 1-16 (Irrelevant)

Page 57, Lines 17-28 (Irrelevant - Cancer
Incompetent
No foundation
Prejudicial)

Page 58, Lines 1-4 (Irrelevant - Cancer
Incompetent
No foundation
Prejudicial)

Page 58, Lines 4-28 (Irrelevant)

Page 59, Lines 1-5 (Irrelevant)

Page 59, Lines 23-26 (Irrelevant)

Page 66, Lines 27-28 | (No foundation
Incompetent

Page 67, Lines 1-6 | Irrelevant - Cancer

Page 67, Lines 7-28 (Irrelevant)

PRIVILEGED
LM 83

Page 68, Lines 1-16	(Irrelevant)
Page 71, Lines 18-28	(Irrelevant)
Page 72, Lines 1-13	(Irrelevant)
Page 82, Lines 7-28	(Irrelevant)
Page 83, Lines 1-14	(Irrelevant ~~1~~ line)
Page 96, Lines 17-28	(Irrelevant)
Page 97, Lines 1-17	(Incompetent no foundation)
Page 99, Lines 5-10	(Irrelevant) (Hearsay)

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J-M 83

2/16-6

Pet's Designations

Direct

P. 33

L. 22-25

Cross

45	-	14-28
46-48		1-28
49		1-22 25-28
50-58		1-28
59		1-12 16-17 19-28
60-80		1-28
81		1-3 5-28
82-84		1-28

RE-DIRECT

P. 88
87

18-28
1-19

RE-CROSS

96
97-99
100

17-28
1-25
1-22

PRIVILEGED
J-M 83

2/16-6

Plt's Designations

Direct

P. 33

R. 22-25

Cross

45

-

14-28

46-48

1-28

49

1-22 25-28

50-58

1-28

59

1-12 16-17 19-28

60-80

1-28

81

1-3 5-28

82-84

1-28

RE-DIRECT

P. 88

18-28

89

1-19

RE-CROSS

96

17-28

97-99

1-25

100

1-22

PRIVILEGED

J-M 83

FILE COPY

SHM 8002

CERTIFIED COPY

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003-0002176

IN THE UNITED STATES DISTRICT COURT FOR

THE DISTRICT OF WYOMING

REDACTED
J-M 83

ROBERT L. HANCE,

Plaintiff,

vs.

JOHNS-MANVILLE SALES
CORPORATION, et al.,

Defendants.

No. C-79-307B

DEPOSITION OF SHELDON H. MANNING, a witness
herein, taken by the defendants at 9:50 a.m.,
Friday, December 12, 1980, at 2800 - 28th
Street, Santa Monica, California, before
Lucia Moskal, CSR, a Notary Public.

Reported by:
Lucia Moskal, CSR 1222
Registered Professional Reporter

No. OLA-5272-80

RENDEL B. HUTCHINGS
Certified Court Reporters

□

LOS ANGELES, 3436 North Figueroa, 90065, (213) 223-1191
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MT-PWHD-013067

REDACTED²
J-M 83

APPEARANCES OF COUNSEL:

For Plaintiff:

WILLIAM T. KELLY

For Defendant
Johns-Manville Sales
Corporation:

VLASTOS & REEVES

and

HAIGHT, DICKSON, BROWN &
BONESTEEL

BY STEVEN L. HOCH

For the Witness:

ROSE, KLEIN & MARIAS
BY ROBERT B. STEINBERG

I N D E X

WITNESS: Sheldon H. Manning	<u>Page</u>
Examination by Mr. Hoch	3, 86
Examination by Mr. Kelly	45, 96

E X H I B I T S

<u>DEFENDANTS'</u>		<u>Marked</u>
A	- BUMED Instruction 6270.3D (10 pages)	19
B	- Department of the Navy Safety Precautions for Shore Activities NAVSOP-2455 April 1965, and attached page 20-22 (2 pages)	21
C	- Department of the Navy Safety Precautions for Shore Activities NAVSOP-2455 April 1965 "Reviewed and Approved: 15 May" and attached page 20-22 (2 pages)	21
D	- Safety Precautions for Shore Activities, NAVSOP-2455, April 1965, CH-1, June 1967, and attached page 20-22, Change 1, June 1967 (2 pages)	21

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EXHIBITS (Continued)DEFENDANTS'Marked

E - Memorandum, Code 725, 30 June 1970
(11 pages)

38

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J-M 83

1
2 SHELDON H. MANNING,
3 a witness herein, having been sworn, testified as follows:
4

5 EXAMINATION

6 BY MR. HOCH:

7 Q. Mr. Manning, would you please state your full name
8 for the record?

9 A. Sheldon Hiett Manning.

10 Q. Your present residence address, sir?

11 A. 15403 Piuma Avenue, Norwalk, California.

12 Q. Mr. Manning, I know that you've had your
13 deposition taken before, and I know that you've testified
14 in court. Just for the record, though, I want to remind
15 you that this deposition is being taken pursuant to Court
16 Order in the Hance case filed in the United States District
17 Court in the District of Wyoming.

18 You have been put under oath by the court reporter,
19 who is an officer of the court, and the oath you have
20 taken is the same oath you would take in a court of law
21 and has the same force and effect. You understand
22 that, do you, sir?

23 A. Yes.

24 MR. KELLY: Excuse me, Counsel. May we have the
25 stipulation that this deposition is being taken at this
26 time and place pursuant to the Federal Rules of Civil
27 Procedure, and may be used for all purposes provided
28 therein.

1 Further, that this case has been set for trial on
2 January 12th, 1981, at Casper, Wyoming, United States
3 District Court of Wyoming, and that Mr. Manning's deposition
4 may be used at the time of trial in lieu of his appearing
5 in person, in view of the fact that he resides more than
6 100 miles from the place of trial.

7 MR. HOCH: Certainly. There is no problem. If
8 Mr. Manning wants to go to Wyoming -- I don't think he
9 wants to, since he is nodding his head. I'll certainly
10 agree to that stipulation.

11 Q. Mr. Manning, just again to clarify the record
12 is there anything about the deposition procedure that
13 you would like explained to you again, or can we proceed
14 right to the deposition?

15 A. No.

16 Q. It's all right to go right to it?

17 A. Yes.

18 Q. Mr. Manning, at some point in time, you were
19 the industrial hygienist at the Long Beach Naval Shipyard;
20 is that correct?

21 A. Yes.

22 Q. When was that?

23 A. From March, 1967, to February, 1974.

24 Q. Are you a college graduate, Mr. Manning?

25 A. Yes.

26 Q. When did you graduate college, where, and
27 with what degree?

28 A. Pennsylvania State University, 1943, Bachelor

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b7o
b7p
b7q
b7r
b7s
b7t
b7u
b7v
b7w
b7x
b7y
b7z

1 of Science in commercial chemistry.

2 Q. Where did you work after college?

3 A. Hooker Electric Chemical Company in Niagara
4 Falls, New York.

5 Q. In what capacity?

6 A. I was a chemical operator and what they call
7 a head operator later on, which is first-line supervisor.

8 Q. What years did you work there?

9 A. May of 1943 to late in August, or something
10 like that, of '45, I believe.

11 Q. Where was your next employment, sir?

12 A. I worked for Weaver Trucking firm for about
13 a year and a half.

14 Q. You drove a truck there?

15 A. Yes.

16 Q. And after that, sir, where were you employed?

17 A. Bethlehem Steel Corporation, from early 1947
18 to --

19 MR. KELLY: Maybe we could stipulate, to help the
20 witness, I believe it was September of 1961.

21 THE WITNESS: Right.

22 Q. BY MR. HOCH: Is that correct, sir?

23 A. That's correct.

24 Q. What did you do for Bethlehem Steel?

25 A. I was a chemist in the quality control laboratory.

26 Q. What facility did you operate out of?

27 A. Steelton, in Steelton, Pennsylvania.

28 Q. In Pennsylvania?

REDACTED
J-M 83

1 A. Yes.

2 Q. Then in 1961, you became employed by the
3 Commonwealth of Pennsylvania; is that correct?

4 A. That's correct.

5 Q. In what capacity were you employed?

6 A. Industrial hygienist.

7 Q. You were employed by them in that capacity
8 until March of 1967, when you went to the shipyard?

9 A. That's correct.

10 Q. While you were with the Commonwealth of Pennsylvania,
11 did you take any further educational courses?

12 A. Yes. I was given several short courses dealing
13 with industrial hygiene given by the U.S. Public Health
14 Service. I think that occurred sometime in January or
15 thereabouts of 1962.

16 Q. Can you describe briefly what type of duties
17 you had as an industrial hygienist for the Commonwealth
18 of Pennsylvania?

19 A. It involved inspection of industrial plants
20 to see if they complied with the rules and regulations
21 of the Pennsylvania Department of Health in regard to
22 occupational health standards. It involved performing
23 what we called surveys, which involved taking samples
24 of the atmosphere, or the environment. We wrote reports
25 of what we found, made recommendations if there was
26 anything to correct. The work involved going back to
27 see whether anything was accomplished.

28 That was the main thrust of the work, I would say.

0012 2713

1 Q. Did you also make recommendations to facilities,
2 private companies, as to how to best control certain
3 environmental hazards?

4 A. Yes. Those were the kind of recommendations
5 that were made, how to control the environmental hazards.

6 Q. And the purpose of all this was to establish
7 the safest possible working conditions for the employees
8 in that area and the public at large?

9 A. Yes.

10 Q. Are you a member of any professional associations,
11 sir?

12 A. Then or now?

13 Q. Well, you're retired presently, aren't you?

14 A. Yes.

15 Q. Can you give us the professional associations
16 that you have been a member of over your career?

17 A. The American Industrial Hygiene Association
18 and the American Conference of Governmental Industrial
19 Hygienists are two.

20 Q. Are you a member of something called the
21 International Hygiene Association?

22 A. The two that I mentioned were the proper
23 names. You may have a name that isn't correct.

24 Q. Was there also a Navy Industrial Hygiene
25 Association?

26 A. Yes. As an employee in industrial hygiene
27 and in the Navy, I was automatically a member of it,
28 I think at the cost of \$1 a year or something.

REDACTED
J-M-83

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1 MR. KELLY: I'd like to join that association.

2 MR. HOCH: Yeah. I'll pay the dollar.

3 THE WITNESS: Whatever.

4 Q. BY MR. HOCH: The American Conference of
5 Governmental Industrial Hygienists also consisted of
6 industrial hygienists who worked in other shipyards of
7 the United States Navy?

8 A. Yes.

9 Q. It also included other industrial hygienists
10 that were employed by the government in other facilities
11 around the country?

12 A. Yes.

13 Q. Were the duties that you performed or were
14 supposed to perform at the Long Beach Naval Shipyard
15 as an industrial hygienist similar to what you described
16 that you did for the Commonwealth of Pennsylvania?

17 A. Yes, it was similar.

18 Q. Were there any differences you can highlight
19 for us?

20 A. Well, there was this difference, I think.
21 Working for a government, there was, oh, inherent in
22 that kind of a position some enforcement ramifications.

23 With working for the shipyard, there was very, very
24 little enforcement capabilities, really. It was an
25 advisory sort of job. Any enforcement of any rules or
26 regulations was generally in the hands of the first-
27 line supervisor.

28 Q. So that we can discuss that a little further,

REDACTED
JAN 83

1 is it correct that in the Long Beach Naval Shipyard,
2 you reported directly to the chief medical officer of
3 the shipyard?

4 A. Yes.

5 Q. And during your tenure, there were two gentlemen
6 that held that position: Dr. Watkins and a Dr. Jose
7 Smith. Is that correct?

8 A. That's correct, except there was an interim
9 period of two or three months where Dr. Ownbey filled
10 in.

11 Q. They were all Navy captains, I believe. Is
12 that correct? They were naval officers?

13 A. Naval officers. Dr. Watkins was a captain,
14 and Dr. Smith was initially a commander, and was promoted
15 later to captain.

16 Q. Those gentlemen, those doctors, they were
17 in charge of the occupational health program at the shipyard;
18 is that correct?

19 A. They were chief medical officers and, as
20 such, I reported directly to them in both cases. As
21 part of their work, I might say they were in charge of
22 the occupational health end of it.

23 Q. So we further understand the lines of authority,
24 if you spotted something in the shipyard, from an industrial
25 hygiene point of view, that had to be corrected, you
26 had no enforcement power directly to change that condition
27 or manner of work; is that correct?

28 A. That's correct.

1 Q. You had to report it up the line?
2 A. Go through the chain of command, that's correct.

3 Q. The chain of command would be from you to
4 your supervisor with the chief medical officers. Correct?

5 A. Yes.

6 Q. Then from there, they would report it to
7 the cognizant supervisor of the trade or area where this
8 practice was going on; is that correct? Or did it go
9 higher?

10 A. I think the chain of command actually getting
11 involved in these things would be from the chief medical
12 officer reporting to the shipyard commander, and the
13 shipyard commander actually would convey down to whatever
14 the chain of command, whoever was involved.

15 This was not always followed, really. Sometimes
16 these things would go from, as you point out, a medical
17 officer would direct his correspondence to possibly a
18 shop superintendent.

19 Q. This setup was different from the
20 one in the Commonwealth of Pennsylvania, where you had
21 some direct enforcement power; is that correct?

22 A. Inherent in the setup, since the government
23 was involved, there is that capability somewhere down
24 the line, that the government can enforce, or shut down
25 something ultimately if it has to happen, which is enforcement.

26 In my case, in the shipyard, I had no power to enforce
27 discipline or anything of this nature. It was according
28 to the union contract that was assigned in the shipyard.

1 The first-line supervisor was the one involved in any
2 enforcement.

3 Q. Did you have an interview for the job at
4 the shipyard?

5 A. Yes.

6 Q. Do you remember who you spoke to?

7 A. Oh, boy. It was a Dr. Kronsveter,
8 I think, or something like that, in Philadelphia, if
9 that's close enough.

10 Q. That's fine.

11 And you accepted the job, and you moved from Philadelphia
12 to Long Beach?

13 A. Yes.

14 Q. When you reported aboard at the Long Beach
15 Naval Shipyard, do you recall the size of that facility
16 in terms of the population?

17 A. The facility, the shipyard itself, probably
18 had about 8,500.

19 Q. Did you understand that you were going to
20 be the sole industrial hygienist for that facility?

21 A. Yes.

22 Q. What were you led, in your interview or within
23 the first few days or weeks when you were at the shipyard,
24 to believe as to the size of the staff you would have
25 to work with?

26 A. Well, I found that I was going to be working
27 alone without any staff whatsoever.

28 Q. That would include no clerical staff, secretarial

1 staff, that sort of thing?

2 A. Yes.

3 Q. Did you learn, during your course of your
4 employment at the Long Beach Naval Shipyard, the staffing
5 size of industrial hygiene billets in other naval shipyards?

6 A. Yes.

7 Q. With the exception of Philadelphia, all the
8 other shipyards had more industrial hygienists than Long
9 Beach did; is that correct?

10 A. Yes.

11 Q. Philadelphia just had one, also?

12 A. That's correct.

13 Q. But the Philadelphia industrial hygienist
14 had some support staff with him, did he not?

15 A. I have no knowledge of this, exactly what
16 his support was.

17 Q. Did he have a secretary?

18 A. Off the top of my head, I can't say. I would
19 think so.

20 Q. And you learned of the size of the industrial
21 hygiene staffs from conversations with other hygienists
22 at the ACGIH meetings and in an informal method, as well;
23 is that correct?

24 A. Yes.

25 Q. You would ask, "How many industrial hygienists
26 do you have," and they would tell you?

27 A. Yes.

28 Q. Were you supplied at any time when you were

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1 working with the Long Beach Naval Shipyard, with a budget?

2 A. No.

3 Q. Did you ever submit a budget to anyone?

4 A. I attempted to submit it, and was not successful.

5 Q. What kind of things were you asking for in
6 your budget?

7 A. Well, initially, I had -- there was no equipment
8 available to do the job, and I had to try to get the
9 most essential instruments to try to take samples of
10 the conditions in the shipyard, whatever it happened
11 to be. It was a long, drawn-out process, I thought,
12 at the time.

13 I think the record shows that it wasn't until about
14 June of 1968, I believe, that I was able to count dust,
15 which was a very important capability, considering conditions
16 there.

17 Q. Let's go through some of these things, if
18 we might, Mr. Manning. When you first got to the Long
19 Beach Naval Shipyard, did you make any inquiries as to
20 who the previous industrial hygienist was?

21 A. Yes, I knew -- found out who the previous
22 industrial hygienist was.

23 Q. Who was he?

24 A. It was Bill Marr.

25 Q. Did you find out through conversations with
26 people?

27 A. Yes.

28 Q. Did you also discover when Mr. Marr left

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1 the Long Beach Naval Shipyard?

2 A. Eventually, yes.

3 Q. When did you learn he left, sir?

4 A. I believe he left sometime in -- I think
5 it was the fall of '64.

6 Q. Did you inquire at the shipyard as to whether
7 or not anyone had filled the industrial hygiene spot
8 between '64 and when you arrived in '67?

9 A. I found out that the job -- I was informed
10 sometime that the job had actually been abolished for
11 some period of time.

12 Q. To the best of your knowledge, during that
13 period of '64 to '67, was there a requirement by the
14 Navy or the government to have an industrial hygienist
15 at the Long Beach Naval Shipyard?

16 A. I think so, yes.

17 Q. This is something that you read or saw, in
18 terms of an instruction or manual or memorandum of the
19 Navy?

20 A. Yes.

21 Q. Were you presented with any of Mr. Marr's
22 documents, tests, studies, papers, surveys, anything
23 of that nature that he might have done while he was at
24 the yard?

25 A. I found nothing that he had written.

26 Q. Would it have been of some help to you, to
27 carry out your tasks as the industrial hygienist at the
28 Long Beach Naval Shipyard, to have had those kinds of

1 things left by Mr. Marr?

2 A. If they existed, yes.

3 Q. Now, did you have an office?

4 A. Yes.

5 Q. Did you have a phone?

6 A. Initially, no.

7 Q. How long did it take you to get a phone?

8 A. Over three years.

9 Q. I don't mean to be facetious, but is availability
10 of a phone something that industrial hygienists at a
11 facility such as the Long Beach Naval Shipyard would
12 need to have to do his job?

13 A. Yes.

14 Q. I think you mentioned a few minutes ago about
15 some equipment. Was there any equipment given to you?
16 By this, we should categorize it as testing equipment
17 such things as microscope or air-sampling devices. I
18 don't mean phones or pencils and papers.

19 A. You mean initially?

20 Q. Yes. Initially, sir.

21 A. Initially, there was no equipment that could
22 be used.

23 Q. Specifically, you did not have any equipment
24 to take dust samples; is that correct?

25 A. That's correct.

26 Q. That, you said, took until June of '68 to
27 get that kind of equipment?

28 A. Yes.

1 Q. Was there any other equipment that you needed
2 to not only take dust samples, but to analyze them, that
3 wasn't available when you arrived at the shipyard?

4 A. Yes.

5 Q. What kind of things were they?

6 A. There were no direct reading instruments
7 available. There were no lab equipment whatsoever.
8 There were no instruments available to take noise measurements.
9 Actually, no instruments at all.

10 I generally asked, and eventually did get a fair
11 amount of equipment that could be used in the field.
12 I never did try to put together a sophisticated laboratory
13 In my opinion, it wasn't necessary. It was my opinion
14 that I could buy the services of an outside laboratory
15 cheaper, or use some facilities within the Navy, if they
16 were available, or within the government.

17 Q. That would be to do some more sophisticated
18 work?

19 A. Yes. I mean complicated work that required
20 sophisticated chemical techniques.

21 Q. When did you feel that the industrial hygiene
22 facility at the Long Beach Naval Shipyard was adequately
23 equipped to do the job as you understood it to be?

24 MR. KELLY: Excuse me, Counsel. I assume we have
25 the standard stipulation that all objections may be reserved.

26 MR. HOCH: Oh, sure.

27 MR. KELLY: Thank you.

28 THE WITNESS: Well, it was somewhere in the area

of 1971, '72, in thereabouts, it became fairly well equipped.

Q. BY MR. HOCH: In terms of being able to take and analyze dust particles and get dust counts, you were able to start that work in late '68; is that correct?

A. The middle -- about somewhere in the summer of '68, I was able to collect and count dust, yes.

Q. Can you describe briefly to us the manner in which dust counts were taken by you in 1968 at the Long Beach Naval Shipyard? And let's specifically also limit that to taking samples of dust where asbestos was present.

A. Well, the method used at that time and accepted is a standard method called a midget impinger collection method, where air was drawn through a glass device known as a midget impinger that contained fluid -- usually distilled water -- and the device collected dust in the water, and this then could be transferred in a measured amount under a microscope, and using the light field technique under a hundred-power microscope, why, the dust could actually be counted, and by the mathematics involved, we could convert the dust count to million-particles-per-cubic-foot concentration in the air.

That's a simplified explanation.

Q. Now, during the first year that you were at the shipyard, was it your understanding that the Navy had some rule or regulation concerning a threshold limit value for asbestos?

A. Yes.

1 Q. Could you please explain the term "threshold
2 limit value" as you understand it?

3 A. Well, a threshold limit value is a standard
4 that generally was adapted by a committee of the American
5 Conference of Governmental Industrial Hygienists, and
6 it was their intent that if a worker was exposed to less
7 than the threshold limit value for an 8-hour period of
8 work, that if he was a normally healthy individual, that
9 he would not sustain a large amount of adverse health
10 effects.

11 Q. In terms of your job, it was your duty to
12 go out and take these measurements, and if there was
13 a value that you found above the threshold limit value,
14 you had to assume that was a hazardous condition, and
15 you had to report it, and somebody had to take the necessary
16 steps to fix it, or fix the operation or control it.
17 Is that basically correct?

18 A. The answer to that is sort of, not exactly.
19 What I did was take samples in the air to define the
20 problem, really, and of course there was no capability
21 to examine all the conditions everywhere.

22 What I actually did was take a number of samples
23 in a number of situations to define the problem, the
24 intensity of the exposure under certain conditions. It
25 didn't exactly work this way, I go out and take a sample
26 and after I took the sample and counted it and everything,
27 the condition had passed. There was no way of going
28 out there and saying, "Stop," like this. It wasn't

1 that directly involved.

2 That's about all I have to say.

3 Q. Mr. Manning, let me show you a document which
4 we will label to this deposition as Defendants' A. It's
5 a BUMED Instruction 6270.3D, dated 15 February '66.

6 (Whereupon the document referred to is marked
7 by the reporter as Defendants' Exhibit A,
8 for identification.)

9 Q. BY MR. HOCH: By the way, what is "BUMED"?

10 A. That's the Bureau of Medicine and Surgery
11 in the United States Navy bureaucracy.

12 Q. Did you work within the framework of the
13 instructions issued by BUMED?

14 A. As a general statement, yes.

15 Q. Let me show you this document, and ask you
16 to look it over briefly.

17 You've seen that before, haven't you, sir?

18 A. Oh, yeah.

19 Q. Was this the BUMED instruction which was
20 in effect at the time you started working at the Long
21 Beach Naval Shipyard, to the best of your recollection?

22 A. Yes.

23 Q. That is, in fact, a true and correct copy
24 of that document?

25 A. Yes.

26 Q. Turning your attention to page ⁸ of that
27 document, under the column marked "Respirable Dusts Evaluated
28 by Count," we find "Asbestos"; is that correct, sir?

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1 A. Yes.

2 Q. What was the standard threshold limit value
3 which was in effect for asbestos at the Long Beach Naval
4 Shipyard at the time you arrived there?

5 A. Five million particles per cubic foot.

6 Q. Did you discuss at any time, say within the
7 first year that you were at the shipyard, any problems
8 concerning asbestos exposure?

9 A. Discuss with various people, or --

10 Q. Let me clarify my question. Did you ever
11 have any conversations with a gentleman named Webster
12 Ay concerning asbestos exposure?

13 A. Yes.

14 Q. Who was Webster Ay?

15 A. When I first went to the shipyard, he was
16 a first-line foreman.

17 Q. In what department, sir?

18 A. Pipe coverer and insulator.

19 Q. I'm sorry. Go ahead.

20 A. And he was also president of the Metal Trades
21 Council, which was a union position.

22 Q. Could you describe briefly what the Metal
23 Trades Council was, to the best of your understanding?

24 A. It was a confederation of craft unions whose
25 members worked in the shipyard.

26 Q. In your conversations with Webster Ay, he
27 expressed some concern over asbestos exposure at the
28 shipyard?

1 A. Yes.

2 Q. Was it your understanding at the time you
3 arrived at the shipyard that there were some Navy rules
4 or regulations concerning the control of asbestos exposure?

5 A. Yes.

6 Q. Can you tell us briefly, to the best of your
7 recollection, what those rules and regulations were?

8 A. I think -- my understanding is at that time --
9 I'd be searching my memory. I think there was some simple
10 rules set up in the safety manual regarding asbestos.
11 It probably involved wearing respirators. And I think
12 inherent in this instruction would be that the exposure
13 should be below the threshold limit value.

14 Q. You were pointing to Defendants' Exhibit
15 A?

16 A. To Exhibit A, yes.

17 Q. Were there also some rules and regulations
18 concerning ventilation, as far as asbestos was concerned?

19 A. I'm not certain exactly at that stage what
20 was written, without reading it or refreshing my memory.
21 There probably were some written instructions to this
22 effect. I can't remember what they were.

23 Q. Let me show you three documents, and ask
24 if they do refresh your recollection. We'll label them
25 B, C, and D, respectively.

26 (Whereupon the documents referred to are
27 marked by the reporter as Defendants' Exhibits
28 B, C, and D, for identification.)

1 Q. BY MR. HOCH: They're all two pages. They
2 consist of a cover page and a page out of the manual
3 that they come from.

4 B, for the record, is a Department of the Navy Safety
5 Precautions for Shore Activities issued April, '65.

6 C is a Department of the Navy Safety Precautions
7 for Shore Activities, also, April, '65, but having a
8 different cover page.

9 And D is Safety Precautions for Shore Activities,
10 also issued April, '65, from the Office of Civilian Manpower
11 Management, Department of the Navy.

12 Take a look at those three documents, sir.

13 I apologize for the Xeroxing. When we got those
14 from Uncle Sam, that's the way we received them.

15 A. Yes.

16 Q. Have you had a chance to review those, sir?

17 A. Yes, I have. I had knowledge of these, of
18 course. I've read them.

19 Q. Those appear to be true and correct copies
20 of what they purport to be?

21 A. Yes.

22 Q. They were issued apparently prior to your
23 coming to the shipyard, but they were in force and effect
24 when you arrived?

25 A. Yes.

26 Q. To the best of your knowledge, these are,
27 in fact, Navy rules and regulations. Correct?

28 A. Yes.

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*More for
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1 Q. Now, according to these documents, there
2 are certain steps which are supposed to be taken to control
3 asbestos exposure. Now, having looked at these documents
4 and refreshed your recollection, can you tell us what
5 was supposed to be done at the Long Beach Naval Shipyard
6 upon your arrival, insofar as these instructions pertaining
7 to asbestos exposure?

8 A. It required general ventilation in areas
9 where dust-producing operations were generally performed,
10 install exhaust hoods over saws and other dust-making
11 machine tools, and C, require workers to wear dust respirators
12 where dusty operations cannot be adequately ventilated.
13 It says, "Use industrial vacuum cleaners in lieu of dry
14 sweeping of" -- I can't read it. I guess, "of floors
15 and other" --

16 Q. "Surfaces"?

17 A. -- "surfaces," I suppose, yes.

18 Q. When you arrived at the Long Beach Naval
19 Shipyard, did you survey the asbestos operations at the
20 shipyard?

21 A. Yes.

22 Q. And you had some conversations with Mr. Webster
23 Ay concerning them, as well?

24 A. Yes.

25 Q. Did Mr. Ay express to you -- by the way,
26 he's deceased, is he not?

27 A. Yes.

28 Q. Did Mr. Ay express to you some concern over

1 the method of handling asbestos in the shipyard? Is
2 that correct?

3 A. He was concerned with the problem. I think
4 he desired as much protection for his workers as possible.
5 Webster Ay, of course, was a layman, as far as ventilation,
6 knowledge of ventilation is concerned. He had, I think,
7 some ideas that he gleaned from the previous industrial
8 hygienist. It was his belief, I think, when I first
9 came aboard in the shipyard, that amosite type of asbestos
10 was most harmful, and if that was eliminated, I think
11 it was his viewpoint that a very large part of the problem
12 would be eliminated.

13 Q. In your survey, initial survey of the asbestos
14 operations at the Long Beach Naval Shipyard, did you
15 find that there was general ventilation in areas where
16 asbestos operations were going on?

17 A. There was one place where most of the fabrication
18 of what we call pads occurred, and this was a place where
19 this kind of work was performed every day, and the kind
20 of thing where you could possibly apply ventilation and
21 have some effect.

22 Aboard ship --

23 Q. Excuse me. The place where they made pads,
24 would that have been a particular building at the shipyard?

25 A. Yes.

26 Q. Would you describe just briefly what a pad
27 is?

28 A. A pad is a piece of insulation that's fabricated

1 by -- and it may have an irregular shape, depending on
2 whatever device it's needed to cover. It consists of
3 generally two pieces of insulation cloth that have been
4 cut out to fit, and they would mate, of course, and between
5 the two pieces of cloth would be inserted some kind of
6 insulation blanket.

7 Q. Did it look like a little pillow?

8 A. Yes, in general, it would be something like
9 a pillow.

10 Q. Was the cloth you referred to asbestos?

11 A. Cloth on the outside, and the interior stuff,
12 insulation material.

13 Q. Was the cloth you referred to asbestos cloth?

14 A. Initially, when I came aboard, it was always
15 asbestos cloth.

16 Q. I'm sorry. Did you finish, sir?

17 A. I think at the time I came aboard, the stuffing
18 was always glass. They never -- sometime prior, it was
19 my understanding that they did stuff this with amosite,
20 and through Bill Marr's efforts and Webster Ay's efforts,
21 they tried to eliminate the amosite from the shipyard.

22 Q. When you arrived, they were using fiberglass
23 as a stuffing?

24 A. Yes.

25 Q. In your initial survey of the asbestos operations,
26 Mr. Manning, can you tell us what you found in the area
27 of respirator use?

28 A. My findings generally were that aboard ship,

1 the employees who worked directly with asbestos were
2 generally supplied with a dust respirator, and they had
3 it available.

4 From my observations and knowledge I gained from
5 other people and talking to the employees, most were
6 intermittently used. They were not always worn.

7 MR. KELLY: Excuse me. Counsel, in reference to
8 your question that you just asked as to when he arrived,
9 would we then be dealing with the period of March, 1967?

10 MR. HOCH: Yes. Let's deal with March, '67.
11 With that understanding, and I want to go further with
12 it.

13 Q. Is that correct, sir, those were your findings
14 in March of 1967?

15 A. Yes.

16 Q. Is it also correct that that was the practice
17 which occurred from the time you arrived at the shipyard
18 at least until the early seventies?

19 A. Well, the kind of respirator that was provided
20 was the Dustfoe respirator and variations of that model.
21 It was manufactured by the Mine Safety Appliance Company,
22 and as long as that was the one that was provided, the
23 general acceptance was about the same, I would say. It
24 was accepted and used at about the same level throughout
25 that period.

26 Q. From the period of May, '67, until the end
27 of October of '68, were respirators available and made
28 available to insulators and insulator helpers who were

1 handling asbestos on board naval vessels at that shipyard?

2 A. Yes.

3 Q. It was your findings that during that time
4 period, they were intermittently used, at best, I believe
5 you said.

6 A. Yes.

7 Q. This was based upon your own personal observations?

8 A. In part, yes.

9 Q. To the best of your recollection, during
10 that time period -- that would be May of '67 until the
11 end of October, '68 -- was there a rule or regulation
12 which was to be enforced at the Long Beach Naval Shipyard
13 which required the insulators and insulator helpers to
14 wear respirators during asbestos operations on board
15 vessels?

16 A. Yes.

17 MR. KELLY: Excuse me. Off the record.

18 MR. HOCH: Sure.

19 (A discussion is held off the record.)

20 Q. BY MR. HOCH: Let me restate the question,
21 Mr. Manning.

22 Was there a rule or regulation in effect from the
23 time you came to the shipyard until the end of October
24 of 1968 which required insulators and insulator helpers
25 to wear respirators while performing asbestos operations
26 on board naval vessels?

27 A. Yes.

28 Q. Who was responsible for enforcing that rule?

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1 A. The first-line foremen were the only ones
2 that had any enforcement powers.

3 Q. In terms of the insulators and insulator
4 helpers at the shipyard, who was the first-line foreman
5 who would have that responsibility?

6 A. Well, there were several foremen. In general,
7 I think they carried three or four or five of them. One
8 of them, of course, was Webster Ay. The others, I don't
9 know off the top of my head.

10 Q. Did Webster Ay, in your presence, ever talk
11 to the insulators or insulator helpers concerning the
12 need to wear dust respirators?

13 A. He talked at several indoctrination sessions
14 that we had. At this time, I'm not sure of the content
15 of what he said, really.

16 Q. Let me ask you this, sir: Did you at some
17 point in time have a discussion with the insulators and
18 insulator helpers concerning ways to control asbestos
19 exposure?

20 A. Yes.

21 Q. When was the first time that you had that
22 type of discussion with those people?

23 A. It would have been, I think, February of
24 1968.

25 Q. Who were the recipients of this discussion?
26 They were the insulators, insulator helpers?

27 A. Yes.

28 Q. Did you make sure that you got them all?

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1 A. I could not be sure I got them all, because
2 it was not within my power to make sure that everybody
3 got there. The shop involved were the ones that brought
4 the bodies to the session and saw that they got there,
5 and I had nothing to do with that.

6 Q. You wanted to tell them all. Correct?

7 A. It was my intent to tell them all, if I could.

8 Q. Did you cover more than one shift?

9 A. Yes. I am not exactly sure exactly what
10 the format was in that first session. I believe we saw
11 more than one group.

12 Q. What kind of things did you tell these people?

13 A. Well, my part of the presentation -- there
14 were quite a few other people involved in that first
15 session, I think -- I didn't have any data of my own,
16 so I used Bill Marr's -- I had available Bill Marr's
17 data, because I had found his article in the American
18 Industrial Hygiene Conference publication, or I had found
19 it somewhere.

20 I also was in possession of Dr. Selikoff's initial
21 findings at that time, and I briefly went over what they
22 probably already knew, what the most dangerous situation
23 was, the ripout, and I brought up the matter of Selikoff's
24 findings, which mostly dealt with the incidence of cancer
25 among asbestos workers.

26 Q. Dr. Selikoff's work that you're referring
27 to, was that published out of the New York Academy of
28 Science beginning in 1964; is that correct?

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1 A. There was work published -- I'm not just
2 certain. I don't believe this particular work was published
3 that early. I think it generally became available --
4 these first initial studies of about 625 members of a
5 union somewhere around New York, I believe -- he found
6 a high incidence of cancer among these people, and the
7 work was published and available in the area of '66 and
8 '67, '68.

9 Q. Do you recall that Dr. Selikoff also published
10 a study in '64 that dealt with asbestosis and insulators?

11 A. I had it available and probably knew about
12 it. I had read some of the things in that study, not
13 all of it --

14 Q. I understand.

15 A. -- at that time.

16 Q. In your discussion with the insulators and
17 insulator helpers in February of '68, you discussed asbestosis;
18 is that correct?

19 A. I talked about asbestosis and the work of
20 Dr. Selikoff, [and I think, of course, one of the things
21 brought out then was exposure to asbestos along with
22 smoking magnified the chances of contracting bronchogenic
23 carcinoma.]

24 Q. In the February '68 meetings that you had
25 with the insulators and insulator helpers, you did discuss
26 asbestosis; is that correct?

27 A. Yes.

28 Q. Did you discuss with them what the men should

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1 do to protect themselves?

2 A. Yes.

3 Q. Did you discuss the wearing of respirators

4 A. Respirators were part of the -- the advice
5 was to wear respirators whenever exposed to asbestos.

6 It was realized that especially aboard ship, and especially
7 during the operation called ripout, which is the removal
8 of asbestos from pipes and machinery, that controls were
9 not adequate, and chances are there was no way of providing
10 adequate controls, and that the only way to get anywhere
11 near any kind of protection was the wearing of respirators.

12 Q. Did you also discuss with them, Mr. Manning,
13 housekeeping procedures?

14 A. I don't know whether I was the particular
15 one that brought that up or not.

16 Q. Do you recall it was discussed in the February
17 '68 meeting by somebody?

18 A. Oh, that and related topics about -- I think
19 there was one supervisor who brought out the fact that
20 employees can work in such a way that they can create
21 more dust, and if they worked in more careful ways, that
22 the dust dispersion would be reduced, which is true.

23 Q. Now, when you took your first dust sample
24 of an asbestos operation, was there some requirement
25 or rule, regulation, of the United States Navy which
26 detailed how often that was to be done?

27 A. Being familiar with Navy operations -- you
28 know, my memory fails a little bit, but I would think

1 there probably was.

2 Q. Do you recall what the requirement was?

3 A. No.

4 Q. You weren't able to take a dust sample from
5 the time you arrived until sometime in '68. Correct?

6 A. That's correct.

7 Q. You didn't have the equipment for that?

8 A. That's correct.

9 Q. Was it your understanding that during that
10 time period when no dust samples could be taken, that
11 within that time frame, the Navy would require it to
12 be taken? You just couldn't do it?

13 Do you understand my question?

14 A. Yes, sir.

15 Not having the equipment, I couldn't take samples.

16 Q. And samples were to have been taken during
17 that time period, according to the Navy?

18 A. And the prior time period when there was
19 no industrial hygienist.

20 Q. Correct.

21 At some point in time between May of '67 and the
22 end of October of '68, you did have occasion to go to
23 the shop building where the insulators did some of their
24 work. Correct?

25 A. Yes.

26 Q. Did you also have a chance during that time
27 period to see products, asbestos products, insulation,
28 stored around the shop?

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1 A. Yes.

2 Q. Were they also stored in some other places
3 around the shipyard, to your knowledge?

4 A. Yes.

5 Q. Where else were they stored, sir?

6 A. Oh, they were stored -- insulation products
7 were stored on a barge. It was located at various time
8 at various places, I guess, in the shipyard.

9 A lot of insulation products were just stored in
10 the open, on board piers.

11 Q. I'm sorry. Did you finish, sir?

12 A. There may have been a storage area in the
13 shipyard, a supply area, and, of course, the Naval Supply
14 Center was adjacent to the shipyard, and that was, of
15 course, a lot of warehouse area, and there were, of course,
16 insulation products stored there, too.

17 Q. During that time period from May of '67 to
18 the end of October of '68, you had occasion to see asbestos-
19 containing insulation products stored in those various
20 facilities. Correct?

21 A. Yes.

22 Q. Do you have a recollection of the name of
23 the manufacturers of any of those asbestos products?

24 A. Well, immediately comes to mind Johns-Manville
25 as one manufacturer.

26 Q. Any others?

27 A. I believe Raybestos-Manhattan is a manufacturer
28 of a lot of the cloth, as I recall.

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1 There were others, I would think.

2 Q. Let me give you some names and see if that
3 refreshes your recollection. Do you remember seeing
4 any products manufactured by Philip Carey?

5 A. You're talking about a time interval? You
6 know, my recollection about what times I saw these things,
7 of course, is very vague now, but at some time I saw
8 products by Philip Carey in the shipyard, I'm sure.

9 Q. Do you also recall any Eagle-Picher products?

10 A. Yes.

11 Q. Just so it's clear, we're referring to asbestos-
12 containing insulation products.

13 A. Yes.

14 Q. Do you recall the name "Pabco"?

15 A. Yes.

16 Q. Did you see products of asbestos-containing
17 insulation with the name "Pabco" on them?

18 A. Yes.

19 Q. Do you recall the name "Kaylo"? Does that
20 refresh your recollection?

21 A. Yes, I saw that.

22 Q. That was also an asbestos-containing thermal
23 insulation product of some type?

24 A. To the best of my knowledge, yes.

25 Q. Do you recall who the manufacturer of Kaylo
26 was?

27 A. No.

28 Q. Does it refresh your recollection concerning

1 asbestos-containing products if we mention Unibestos?

2 A. Yes.

3 Q. Did you see Unibestos at the shipyard?

4 A. I think, on one occasion.

5 Q. Any others you can recall at this time, sir?

6 A. No.

7 Q. With the exception of Unibestos, generally,
8 were the other products of the manufacturers we named
9 products which were at the shipyard generally throughout
10 your course of employment there?

11 A. As far as I can recollect. You know --

12 Q. The asbestos cloth products that were available
13 at the shipyard, do you recall how they were wrapped
14 or packaged?

15 A. They generally were in rolls that were in
16 cardboard containers, long, square cardboard containers,
17 as I recall.

18 Q. Mr. Manning, for the first three years that
19 you were at the Long Beach Naval Shipyard, you did not
20 have a secretary; is that correct?

21 A. Not of my own, no.

22 Q. You sort of borrowed one when you could?

23 A. From time to time I had some use, I could
24 use the medical officer's secretary for some tasks.

25 Q. Why was it important to you to have a secretary?

26 A. Well, as my work progressed, I had more paperwork --
27 reports to get out, replies to inquiries. I had to process
28 a lot of hearing-loss claims. I had periodic reports

1 to make to BUMED.

2 Q. Was it the idea that if you didn't have a
3 secretary, you had to do the typing yourself, and therefore,
4 you couldn't be in the field doing your job?

5 A. Yes.

6 Q. Did you have a belief within the first three
7 years that you were at the shipyard, Mr. Manning, as
8 to the understanding that the medical officers had concerning
9 industrial hygiene programs at the shipyard?

10 A. Yes.

11 Q. What did you feel about that?

12 A. Well, I've had a little time to think about
13 it. We went over it quite a bit. My feeling is that
14 the medical officer, Captain Watkins, and the shipyard
15 commander at the time that I came aboard, and some other
16 individuals probably, were a little bit paranoid -- more
17 than a little bit paranoid about what an industrial hygienist
18 might do and what trouble he might cause, especially
19 if he wrote reports and had some kind of contact or did
20 some writing for an outside publication or contacted
21 a newspaper, like this, and the reason for this was that
22 Bill Marr did, as I understand it, publish apparently
23 without permission, and he did, I think -- to my understanding --
24 make some contact with a local paper about the asbestos
25 hazard.

26 And it was because of this that these people were
27 somewhat paranoid about getting things in print, or even
28 written down, and this is my understanding now, in looking

back on it, and the job had been abolished, and although I have no direct knowledge, it is my feeling, when I was hired, that it was with the understanding that I didn't get too rambunctious and cause a lot of trouble for the Navy in regard to these areas.

Captain Watkins was not very, to say the least, very helpful in promoting the industrial hygiene program, and it was a little while, when Captain Smith came aboard, before I could get his attention and really get things going.

Q. Mr. Manning, is it your understanding that Mr. Marr was shipped to Panama after his stint at the Long Beach Naval Shipyard?

A. I have no direct knowledge of just exactly what the circumstance was. I don't think that was so. I think Mr. Marr -- the opportunity for a promotion was available within the Federal framework, and he took advantage and took the promotion and went to Panama. I don't -- I never understood that there was any coercion or force.

Q. Is it your understanding, though, that Mr. Marr, when he finished with the Long Beach Naval Shipyard, did go to Panama?

A. That's correct.

Q. During the first three years that you were at the Long Beach Naval Shipyard, were you instructed by any of the medical officers to report directly to them prior to putting anything down on paper?

A. Captain Watkins wouldn't allow any written

1 reports.

2 Q. What about Captain Smith?

3 A. When Captain Smith came aboard, I immediately
4 started writing reports, and it is just good form to
5 send these things out under the signature of the medical
6 officer. I think he wanted it this way.

7 Q. At some point in time, sir, did you make
8 any comments to the effect that you believed the industrial
9 hygienist at the Long Beach Naval Shipyard was merely
10 window dressing?

11 A. That comment was made in a memorandum I addressed
12 to the medical officer.

13 Q. And that memorandum, sir, outlined your observations
14 and impressions of the problems with the industrial hygiene
15 program at the Long Beach Naval Shipyard that you observed
16 from the time you arrived there until the date of the
17 memo?

18 A. Yes.

19 Q. Let me show you a copy, sir, of a document
20 which we will label as Defendants' E.

21 (Whereupon the document referred to is marked
22 by the reporter as Defendants' Exhibit E,
23 for identification.)

24 Q. BY MR. HOCH: And I'll ask you to take a
25 look at it.

26 For the record, it is a memorandum dated 30 June
27 1970, to Commander Jose C. Smith from Sheldon Manning.
28 It is apparently 11 pages in length.

1 A. Yes.

2 MR. KELLY: Excuse me. Off the record.

3 (A discussion is held off the record.)

4 Q. BY MR. HOCH: Have you had a chance to review
5 that, sir?

6 A. I have looked it over, yes. I see what's in it.

7 Q. Does it appear to be a true and correct copy
8 of the memo which you issued on that date?

9 A. Yes.

10 Q. This was issued during your regular course
11 of employment as the industrial hygienist at the shipyard?

12 A. Yes.

13 Q. By the way, did you type this one yourself?

14 A. No, I didn't. I had some outside secretar
15 to type it.

16 Q. Somebody you paid to have type it?

17 A. Yes.

18 Q. Out of your own pocket?

19 A. Yes.

20 Q. On page 10 of the memorandum, sir, you state,
21 quote, "It is realized that there are many obstacles
22 in the way of improving the industrial hygiene program -
23 lack of space - lack of money. However, the greatest
24 obstacle in the way of upgrading the program is lack
25 of backing from key people in the power structure of
26 the shipyard, who apparently have little understanding
27 of the need for environmental control and, consequently,
28 could not care less about upgrading the program," unquote.

1 Do you see that paragraph, sir, on the bottom under
2 "D. Discussion"?

3 A. Yes, I see that.

4 Q. Did I read it correctly?

5 A. Yes.

6 Q. That, in fact, was your feeling concerning
7 the functioning of the industrial hygiene program at
8 the Long Beach Naval Shipyard between the time you arrived
9 there and 30 June 1970. Correct?

10 A. Yes, that was my understanding.

11 Q. This comment you made, I assume, was not
12 made lightly. Correct?

13 A. No.

14 Q. It was based upon what, sir?

15 A. Well, up to that time, I had been there three
16 years, and two years were spent under the direction of
17 Captain Watkins, and there was not, from what I thought,
18 sufficient headway made insofar as even getting equipment,
19 and, of course, the telephone and all the other things
20 were brought up here.

21 As I stated before, I think that the motivation
22 of Captain Watkins was that he was fearful of what a
23 well-equipped industrial hygienist may do or say that
24 would embarrass him.

25 Q. He was in charge of the occupational health
26 program; is that correct?

27 A. Yes. For two years.

28 I might say that I recognized initially the situation,

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1 and had to make a decision whether to leave or stay,
2 and my understanding, he only had one year to go to retire,
3 so I felt I could manage that, but he kind of threw me
4 a curve and stayed an extra year, which was a little
5 harder to take.

6 And Dr. Smith came aboard, and I found, for the
7 first year, that it was very difficult to get his attention.

8 Another obstacle was that an administrative officer
9 of the dispensary that worked for Captain Watkins carried
10 over and had -- of course, having worked with him, knew
11 his viewpoint, and accepted that viewpoint, which was
12 a pretty low opinion of industrial hygiene and no motivation
13 to upgrade it, really, and probably no understanding
14 of it, but having the power of the pursestrings. So,
15 having no understanding, no motivation, he was not a
16 force in building the industrial hygiene program, and
17 he worked for Captain Smith -- or Commander Smith at
18 the time. And Commander Smith depended on him a lot
19 for whatever went on in the dispensary, and, in fact,
20 at the shipyard commander's, say, weekly meetings, he
21 sent his administrative officer instead of going himself.
22 So that was part of the obstacle.

23 And since I couldn't get his attention verbally
24 very much, I had to make some kind -- I felt at the time,
25 I was probably a little more emotional than I should
26 have been -- that I had to get something down on paper
27 and get it on the record, and in that way he would have
28 to do something about it, or I had the option of getting

1 out of there if nothing happened.

2 Q. Mr. Manning, the asbestos control procedures
3 that you discussed with the insulators and insulator
4 helpers and the rules and regulations that we've cited
5 all were part of the industrial hygiene program which
6 was to take place at the shipyard. Correct?

7 A. This was my area.

8 Q. And all of that also fit under the heading
9 of the occupational health program generally, which the
10 medical officers were to enforce or were in charge of,
11 I should say. I'm sorry. Is that correct?

12 A. Yes.

13 Q. When you arrived at the shipyard, you had
14 no equipment with which to do your job. Correct?

15 A. Yes.

16 Q. And you found that the chief medical officer
17 wouldn't allow you to put things down in writing that
18 you found. Correct?

19 A. He stated he didn't want my written reports.

20 Q. And you had to --

21 A. He wanted them verbal, everything verbal.

22 Q. You had to clear actions that you wanted
23 to take with him?

24 A. Yes.

25 Q. You also were burdened with some other tasks
26 outside of the control of asbestos, such as fitting earplugs
27 and running some urine tests. Correct?

28 A. Yes. These were tasks that I performed.

1 Q. It was your belief that those tasks could
2 have been performed by somebody else so that you could
3 spend your time out in the field. Correct?

4 A. Yes.

5 Q. When you wanted to talk to workers concerning
6 the asbestos problem, did you find that there was some
7 reluctance on the part of the Navy to allow you to sit
8 down with these men and talk to them?

9 A. No, no.

10 Q. Did you find that it was difficult to get
11 these workers away from their jobs to talk with them?

12 A. Well, at times during -- maybe not in relation
13 to asbestos sessions -- naturally, if a worker was in
14 some kind of session involving education, he was not
15 on the job, and you would find -- I found -- and this
16 was in regard to the hearing conservation more than asbestos.
17 Whenever the asbestos sessions were called, the people
18 got there when they were called. In the hearing conservation,
19 there were times when groups did not show up that were
20 supposed to show up, and there was nothing you could
21 do about it. That was something that supervision had
22 to enforce.

23 I would say, as a general rule, production people
24 were reluctant to have their workers taken off the job
25 and put in hours and places and situations that were
26 not productive. This is a normal viewpoint.

27 Q. Was it the general rule, then, that you ran
28 into problems in getting men to get away from their work

1 if they were carried out to the letter, it would require
2 huge staffing. These people in Washington were very
3 good at writing instructions, but the reality of the
4 situation is, if all these instructions were followed
5 to the letter, it would have been almost impossible to
6 get anything else done in the shipyard.

7 What was the question? I got off the track.

8 MR. HOCH: That's all right.

9 That's all I have for now, sir. Thank you.

10 Do you want to take a break?

11 MR. KELLY: Sure.

12 (Lunch recess taken from 11:15 a.m. to 1:20 p.m.)

13 (Mr. Steinberg is no longer present.)

14 EXAMINATION

15 BY MR. KELLY:

16 Q. May the record show that we have adjourned,
17 and, Mr. Manning, you have previously been sworn, and
18 that same oath still affects your testimony, and you
19 understand that?

20 A. Yes.

21 Q. With respect to your education, Mr. Manning,
22 before you became an industrial hygienist, did you obtain
23 any other degrees?

24 A. No.

25 Q. Do you have a degree in chemistry?

26 A. Yes.

27 Q. Was that obtained during your studies in
28 becoming an industrial hygienist?

1 so you could train them and talk to them concerning industrial
2 hygiene matters?

3 A. Actually, there were only two kinds of sessions
4 that were held while I was there, and one was hearing
5 conservation, and the other was involved with asbestos
6 exposure, and maybe I think -- I was not involved in
7 it, but I instigated it. Some workers were given some
8 training in radiation protection.

9 Q. Approximately what percentage of your time
10 over your career at the Long Beach Naval Shipyard did
11 you spend on asbestos-related matters?

12 A. Truthfully, that would be a wild guess.
13 questions have been asked before.

14 Q. We don't want you to guess, sir.

15 A. It would be a real guess.

16 Q. That's all right, then. Guessing doesn't
17 help anybody.

18 Just one last question, Mr. Manning. Did you ever
19 make a request to your superiors for additional industrial
20 hygienists to be employed by the shipyard?

21 A. Yes.

22 Q. When was the first time you made that request?

23 A. I think, in this exhibit, there was some
24 reference to -- in the letter I wrote to Smith -- a need
25 for additional staff.

26 You've put some instructions on the record, and
27 I might point out to you that from the area of BUMED,
28 there were many instructions in many areas that required --

1 A. No.
2 Q. Did you obtain that afterwards or before?
3 A. I graduated with a B.S. degree in commercial
4 chemistry in 1943.

5 Q. And then in which year did you become an
6 industrial hygienist?

7 A. In 1961.

8 Q. Earlier, you had testified that you had work
9 for the Hooker Electric Chemical Company.

10 A. Yes.

11 Q. Do you remember approximately which years
12 that would have been?

13 A. '43 through the latter part of '45.

14 Q. And then I believe you were a chemist with
15 Bethlehem Steel.

16 A. Early '47 to where, September, I guess, '61.

17 Q. During the period of time that you worked
18 for Bethlehem Steel as an industrial hygienist or chemist,
19 did you run any quality control tests?

20 A. Yes.

21 Q. What type of tests were those?

22 A. Oh, they involved chemical, physical analysis
23 of coal --

24 Q. Did you run any tests relative to air control
25 or air pollution?

26 A. No.

27 Q. When you worked for the Pennsylvania Department
28 of Health, I believe, from 1961 to 1967 as an industrial

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1 hygienist, did you do any work or perform any surveys
2 to determine if there were any health hazards in any
3 of the manufacturers' plants or foundries that you were
4 inspecting?

5 A. Yes.

6 Q. During that period of time, did you do any
7 inspecting on any asbestos plants or manufacturers?

8 A. Yes.

9 Q. Approximately how many did you inspect or
10 make surveys of?

11 A. There was only one plant in my area that
12 actually manufactured insulation. That was -- oh, boy
13 Pittsburgh Corning plant in Port Allegany, Pennsylvania.
14 There were, I think, other surveys done that involved
15 asbestos, but that was the only manufacturer.

16 Q. With respect to your inspections of that
17 asbestos manufacturing plant, what were the particular
18 subject matters which you were the most concerned with
19 or worried about?

20 A. Well, this plant manufactured a variety of
21 products, but during the time that I was employed with
22 the Pennsylvania Department of Health, they started up
23 a plant that manufactured preformed pipe insulation.

24 Q. Did that contain asbestos?

25 A. Yes.

26 Q. Were you concerned about the dust levels
27 in that particular plant?

28 A. Yes.

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1 Q. How did you go about at that time in
2 measuring the dust levels to determine whether or not
3 there were any hazards present by reason of the asbestos
4 dust?

5 A. We used the same midget impinger, light field
6 technique previously mentioned. A midget impinger was
7 used to collect the dust, and the microscope, 100-power
8 microscope was used to count the dust on a slide.

9 Q. Did you say "100-power"?

10 A. Yes.

11 Q. Are there any other measuring devices to
12 measure dust levels other than the midget impinger?

13 A. Yes.

14 Q. What other brands and makes are you aware
15 of?

16 A. Oh, one device comes to mind. There was
17 a Bausch-Lomb counting device that used a plate that
18 had adhesive material on it, some kind of sticky, adhesive
19 material.

20 In this particular device, as I recall -- I never
21 used the device at all. I just read about it -- a fixed
22 amount of air was forced against the adhesive or stickum
23 material, and the particles presumably stuck to this
24 material, and then they were counted under a microscope
25 that was part of the instrument. I think -- well --

26 Q. Are you aware of any type of measuring device
27 that is better than the midget impinger?

28 A. Well, later, the membrane filter collecting

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1 method that used a phase contrast microscope for counting
2 fibers became the standard counting method, and I would
3 believe -- believe it is a superior way.

4 Q. In what year did you first learn about it?

5 A. This way of collecting dust, I knew about
6 that rather early on in 1961, because collecting on a
7 millipore filter was done in evaluating silica exposures.
8 It was used to make a particle size evaluation. It became
9 standard procedure to use the phase contrast microscope
10 and millipore filter method around, I think, '71 or '2.
11 '71, probably, I think.

12 This was made the standard method by the TLV, but
13 the method was used, I think, in England before that,
14 and parts of the method had been used for other purposes
15 before this.

16 Q. Would that have been used prior to 1961 in
17 England, to your knowledge?

18 A. I don't know.

19 Q. In your opinion as an industrial hygienist,
20 what advantages would the membrane filter have over the
21 midjet impinger, insofar as being able to detect or measure
22 the dust count levels relative to asbestos?

23 We will just wait until he gets back.

24 Do you need the question read back?

25 A. No. You're asking what superiority the one
26 method had over the other method?

27 Q. Yes.

28 A. The millipore collecting device/phase contrast

1 microscope counting method counted fibers, actual fibers,
2 over five microns in length, and the prior method counted
3 gross dust samples which may or may not have been asbestos.

4 Q. So, then, if I understand you correctly,
5 the midget impinger would be taking a gross count of
6 all types of particles in the air, and not just asbestos
7 fibers alone?

8 A. Yes.

9 Q. Was the membrane filter type of measuring
10 device known and available in 1961?

11 A. The collection method was known. It would
12 just be beyond the scope of my knowledge whether the
13 phase contrast microscope was in use for this purpose.
14 It may have been or may not. I know that this method
15 was used in England before we used it here in this country,
16 and that's about the extent of my knowledge.

17 Q. Do you know whether it was used before you
18 went to work as an industrial hygienist at the Long Beach
19 Naval Shipyard?

20 A. No, I don't know that.

21 Q. With respect to the collector type as distinguished
22 from the midget impinger, could you explain to us mechanically
23 what the collector type did, and what superiority it
24 had over the midget impinger in measuring hazardous dust
25 levels associated with asbestos or any other contaminants?

26 A. Well, the millipore filter obviously is specific.
27 A trained observer could determine whether an asbestos
28 fiber was an asbestos fiber, and count it.

1 The millipore filter -- or millipore collector device
2 had a number of drawbacks. Number one, you had to count
3 it within a short period of time, because the particles
4 would coagulate. You might get some kind of organisms
5 in there to multiply. It is possible that some, depending
6 on -- you might have some things go into solution.

7 Q. How are you spelling "millipore"?

8 A. M-i-l-l-i-p-o-r-e. It's membrane -- actually,
9 the scientific designation is membrane filter. Millipore
10 is a trade name. There are other people. Galvin
11 manufactures it.

12 Q. What particular advantage did the membrane
13 type have over the midget impinger, as far as being accurate
14 with respect to the dust level count?

15 A. Well, the method allowed you to count the
16 actual asbestos fiber and get a number.

17 Secondly, the sample didn't deteriorate, either.
18 You could count it in a week or a month, or whatever,
19 and you could use part of the sample and save the other
20 part, and so --

21 Q. During the time you were with the Pennsylvania
22 Department of Health from 1961 to 1967, which were the
23 most dangerous factories that you inspected, as far as
24 hazards were concerned, relative to dust count levels?

25 A. The two plants that we checked out for asbestos
26 were dangerous. As it turned out, under the standards
27 of the time, there were brickyards that I sampled in
28 that were dangerous. Foundries.

1 Q. Was that because of the dust levels, insofar
2 as the foundries and brick factories were concerned?

3 A. Yes.

4 Q. During the period of time that you were an
5 industrial hygienist with the Pennsylvania Department
6 of Health, did you have occasion in performance of your
7 duties to measure silica dust levels?

8 A. Yes.

9 Q. With respect to the various measuring devices
10 that you've testified to, such as the midget impinger
11 and also the membrane collection device, were these devices
12 actually designed to accurately measure the count of
13 asbestos fibers in the air?

14 A. No, I don't think they were actually designed
15 for the specific purpose of measuring asbestos.

16 Q. Were those devices actually measuring a gross
17 count of asbestos and all other contaminants in the air?

18 A. Yes.

19 Q. During the time that you worked for the Pennsylvania
20 Department of Health, did you have any special training
21 or courses which related to the subject matter of asbestos
22 or asbestos hazards?

23 A. No, nothing specific.

24 Q. During that period of time, did you have
25 occasion to read and study any articles which were printed
26 or published relative to asbestos hazards?

27 A. Yes.

28 Q. Do you recall any of the particular articles

1 that you read relative to asbestos hazards or asbestos
2 dust hazards?

3 A. Oh, I read during that time the book entitled,
4 I think, "Industrial Dust," by Drinker and Hatch, which
5 covers the field of dust exposure. Probably Patty's
6 book --

7 Q. How is Patty spelled?

8 Excuse me.

9 A. P-a-t-t-y, I think.

10 Q. What was Patty's book on?

11 A. It had "Industrial Hygiene" in it. "Industrial
12 Hygiene" -- there was another word in there, but Patty
13 is a fundamental text in industrial hygiene.

14 Q. Do you remember in which particular year
15 or approximate year -- was it "Draker" or "Drinker" and
16 Hatch? --

17 A. Drinker and Hatch.

18 Q. -- which year that book would have been published
19 or in circulation?

20 A. Oh, probably 1955 or thereabouts.

21 Q. What about Patty's book?

22 A. Late fifties sometime, his initial book.

23 Q. Did either of those books mention the inherent
24 dangers of asbestos or asbestos dust?

25 A. Yes.

26 Q. In which year would you have first become
27 aware of the potential hazards of working with asbestos
28 and asbestos dust?

1 A. Oh, early around -- soon after I started
2 work with the Pennsylvania Department of Health, I would
3 have a cursory knowledge of the various things that would
4 be hazardous in an industrial environment. It would
5 probably just start out with knowledge of the TLV.

6 Q. That would have been in 1961?

7 A. '1.

8 There were -- I think, first, the Pennsylvania Department
9 of Health published a little 1-page instructions of something
10 of this sort, dealing with specific hazards. I probably
11 would have read that, which just touched the high points.

12 Q. Would these things have been known to industrial
13 hygienists and anyone working in those fields during
14 those years, 1961?

15 A. Yes.

16 Q. Mr. Manning, in your expertise as an industrial
17 hygienist, when you take into consideration any type
18 of safety measures, do you also take into consideration
19 the human nature of people and workers?

20 A. Yes.

21 Q. Earlier you testified with respect to the
22 wearing of respirators at the Long Beach Naval Shipyard,
23 and I want to ask you, in your opinion as an industrial
24 hygienist, as to whether at that time during the years
25 of 1967 throughout 1974, up until the time you quit on
26 February 25th, 1974, did you place complete dependence
27 upon respirators as a protective device for the workers?

28 A. No, I didn't.

1 Q. Would you explain your answer, please, fully?

2 A. Well, in the field of industrial hygiene,
3 when people are involved, in trying to control industrial
4 hazards, it is taught by the people -- for instance,
5 in the U.S. Public Health Service publications and anybody
6 else fairly knowledgeable in the field -- that these
7 types of respirators we're talking about, dust respirators,
8 can really only be depended on only for emergency situations,
9 and for a period of time until better control methods
10 can be installed.

11 Q. Why is that?

12 A. Well, this type of respirator is generally
13 not accepted by the worker.

14 Q. Based upon your experience and your observations
15 as an industrial hygienist, and especially during the
16 years that you were at the Long Beach Naval Shipyard,
17 would you explain what your understanding is as to why
18 the respirators were not acceptable to the workers?

19 A. Well, the respirators of the type that we
20 used, used a fabric type of filter. They had resistance
21 to breathing, which caused -- would cause respiratory
22 fatigue after a while. Generally, these workers were
23 involved in moderately physical effort, and it is known
24 that a worker will just stand so much of this and then
25 take the things off. They're uncomfortable. They prohibit
26 or inhibit communication. They load up, of course, and
27 the resistance gets greater as they load, causing the
28 necessity to have replacements for the filter if they're

going to be used.

It is just part of human nature that a human being doesn't like to be muzzled, and at least in my observations and what I knew about the subsequent respirators of this type, to put your dependence solely on those things as your only defense is an exercise in futility.

Q. Would that be your opinion today, as well as back in 1967, when you went to work at the Long Beach Naval Shipyard?

A. Well, given that type of respirator and human nature not changing, I would say yes.

I might add, there were throwaway respirators come into use, I think, later that were better accepted for a number of reasons, but that particular respirator during that period of time was not well accepted.

Q. During the time that you were with the Pennsylvania Department of Health from 1961 through '67, did you have occasion to inspect any chemical plants?

A. Yes.

Q. Were you involved in any cleanups of any contamination during that period of time at any of those chemical plants?

A. Well, the only involvement in decontamination was the manufacturer of -- Kilsdonk Chemical, or Chemical Company, I think, was the name of the --

Q. What was the particular hazard or danger there, as far as the chemical is concerned?

A. Well, they had manufactured a dye,

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1 I believe it happened in late '64, as I recall,
2 and I later obtained the transcript of the proceedings,
3 and early on at least glanced through it.

4 Q. During the time that you were working for
5 the State of Pennsylvania, 1961 to 1967, and inspecting
6 these chemical plants, did you yourself wear a face mask
7 or respirator or any type of protective clothing in carrying
8 out your duties?

9 A. The answer is no, except on some isolated
10 occasions.

11 Q. What would be the reason for not wearing
12 a respirator during that period of time?

13 A. Well, first of all, we were not provided
14 with respirators. They were not available. And it was
15 felt as good practice for an industrial hygienist, when
16 he's taking samples, not to unduly alarm the employees
17 which would -- you know, actually jumping to the conclusion
18 that things were out of hand.

19 If you walked in there and checked something out
20 without really knowing one way or the other --

21 Q. That would be not wanting to alarm or frighten
22 the employees?

23 A. Well, it would be bad form. For instance,
24 Patty, in his book, made fun of pantywaist industrial
25 hygienists who go around, you know -- the idea was, the
26 industrial hygienist was exposed to a less extent than
27 the employee, and wearing a respirator would be begging
28 the question, "This is out of hand. I'm wearing a respirator,"

1 beta-naphthylamine, that had been proven to cause --
2 be the direct cause of bladder cancer, and --

3 Q. Excuse me. Go ahead.

4 A. -- and the Pennsylvania Department of Health,
5 because it was known to cause bladder cancer, I guess
6 from studies made by Dr. Lieben, who was the head of
7 the Occupational Health Branch, the state outlawed, actually
8 outlawed the use of the beta-naphthylamine in the State
9 of Pennsylvania.

10 And I think Kilsdonk Chemical Company was the only
11 manufacturer involved, and they ceased to manufacture,
12 and when I was employed, most of the work had been finished,
13 and they ceased to manufacture, but the building was
14 still there, the room was still there, and I went in
15 with somebody else to see that the place was free of
16 the contaminant.

17 Q. In which year did you first become aware
18 of the fact that working with asbestos could cause cancer
19 in the workers who worked with asbestos products?

20 A. It first came to my attention, I believe,
21 probably sometime in early 1965 or thereabouts. It was --

22 Q. How did you first learn about that?

23 A. Actually, my supervisor, whose name was Paul
24 Gronka, obtained knowledge of that at a staff meeting
25 in Harrisburg, where Dr. Jan Lieben participated in that
26 staff meeting, and he had, I guess, just recently attended
27 the sessions on asbestosis and related problems given
28 by the New York Academy of Science.

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1 and everybody looks around.

2 The same thing applied to the shipyard. If you
3 walked around there with a respirator all the time, somebody
4 would throw a net over you and you'd pretty soon get
5 fired, because --

6 Q. With regard to the number of employees that
7 were at the Long Beach Naval Shipyard when you first
8 started there in 1965, I believe you testified earlier
9 to a figure of approximately 8,500, and my question is,
10 out of those 8,500, approximately how many shipyard workers
11 in 1967 would have been working directly with asbestos
12 products?

13 MR. HOCH: Just to correct the record, your
14 question started with saying the witness started working
15 in '65. I think you meant '67.

16 MR. KELLY: Yes. I meant '67. Will you correct
17 that? Thank you.

18 MR. HOCH: Sure.

19 THE WITNESS: To the best of my recollection, the
20 pipe coverers and insulators numbered somewhere in the
21 neighborhood of 100, 110, 130, thereabouts. It probably
22 varied, depending on the load.

23 Subsequently, I found that there were other exposures
24 in other trades intermittently, some of them just for
25 short periods of time. It might have involved 40, 50
26 other employees.

27 Q. BY MR. KELLY: Just as a ball-park figure,
28 then, in your opinion, would it have been less than 300

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1 workers who were working directly with asbestos products
2 in 1967 at the shipyard?

3 A. Yes.

4 Q. Based upon your experience as an industrial
5 hygienist and during the years that you worked at the
6 Long Beach Naval Shipyard from '67 to '74, if you were
7 to enumerate on a 1-2-3 basis the most hazardous areas
8 in the shipyard pertaining to working with asbestos or
9 asbestos dust, which places would you name in order as
10 being the most dangerous or hazardous?

11 A. Could you clarify what you mean by "places"?
12 We have --

13 Q. I should probably be asking about work projects
14 or tasks or duties that were being carried out.

15 A. First of all, the greatest exposure to asbestos
16 was, without a doubt, aboard ships that were under repair,
17 and more specifically, in the engineering spaces, meaning
18 the boiler rooms and the engine rooms of these ships,
19 and the greatest intensity, of course, was the removal
20 of the asbestos from the machinery, from the boilers,
21 from the pipes, what was generally known as ripout, and
22 these were the most intense exposures.

23 Q. Would you explain to us what particular factors
24 or things would be involved in the ripout operation aboard
25 the ships that would cause or create the most intense
26 and greatest hazards to asbestos and asbestos dust?

27 A. Well, creation of a dusty situation involves
28 generally the application of mechanical work of some

1 kind, and when this material was removed, it was generally
2 removed in a physical manner. It was cut off, or sometimes
3 they used a hatchet. Sometimes a knife was used to remove
4 this material. It was pulled off physically and dragged
5 out on occasion. They'd remove, for instance, the portions
6 of asbestos blanket and just drag it out through everything
7 and bounce it over everything and toss it in -- this
8 is the way it was when I went there initially -- toss
9 it into a dumpster or something outside or nearby.

10 Q. Continue. Excuse me.

11 A. This kind of activity -- and the material
12 was very dry, of course, having been in a hot situation
13 a long period of time. Dry and fragile and wore out,
14 probably, and it just disintegrated into a cloud of dust.

15 Q. When you speak of a ripout operation, is
16 this the actual tearing or cutting and removing of asbestos
17 that's in place around pipes and other equipment aboard
18 ship?

19 A. Yes.

20 Q. In what areas of the ship would the ripout
21 operations be engaged in?

22 A. Well, anytime something had to be repaired
23 or replaced aboard ship and it had insulation on it,
24 the insulation first had to be removed to get at whatever --
25 whether it was machinery or pipe or whatever. Most of
26 this was done, as I previously stated, in the engine
27 spaces and in the boiler rooms of ships, was the greater
28 amount. There were other applications for insulation.

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1 Q. Would that be in the hold of the ship where
2 the steam pipes are?

3 A. That's right. Firerooms or places where
4 there are boilers.

5 Q. Would the workers, then, who were engaged
6 in a ripout operation aboard these ships be working in
7 crowded and confined spaces, as far as room and ventilation
8 was concerned?

9 A. The engineering spaces aboard naval craft,
10 as a general rule, are very crowded and filled with engineering
11 equipment, boilers, and compressors and generators. The
12 smaller the ship, the more confined it is. The destroyers
13 come to mind as being very confined. If you got up to
14 a cruiser, why, there was a little more room there. And
15 possibly aircraft carriers would have a little more space.
16 Not a whole lot, but --

17 Q. Realizing, of course, that these ships, battleships,
18 cruisers, aircraft carriers, destroyers, would all vary
19 in size, once a ripout operation were to commence, approximately
20 what would the time period vary between? Would it be
21 a matter of weeks or months that these ships would be
22 in dock while a ripout operation was being engaged in?

23 A. Well, the sequence in the repair and overhaul
24 of ships -- the extent of the work varied, depending
25 on what they were doing. Sometimes these ships were
26 completely overhauled and changed. But the sequence
27 would be, when the ship first come into the yard to have
28 work performed on whatever machinery or whatever was

1 being done, the ripout would occur then, and then maybe
2 would extend -- then maybe they'd change their mind or
3 maybe they would add something on later that they were
4 going to do. Well, then, maybe additional ripout would
5 occur.

6 But, generally speaking, most of the ripout would
7 be done when the ship initially hit the yard for overhaul,
8 because the machinery had to be exposed and the pipe
9 exposed, and so forth, to get the things out to repair
10 them.

11 Q. Generally, would the workers themselves who
12 were engaged in the ripout operation be working in the
13 hold of a ship for eight hours at a time for several
14 days or longer during the course of a ripout?

15 A. Oh, I suspect, and probably know of some
16 jobs would require a better part of a day in the ship,
17 but this would not always be so. It would be whatever
18 time was required to get that much done. That's what
19 it would be.

20 Q. During the time you were industrial hygienist
21 at the naval shipyard at Long Beach, were you advised
22 in advance as to when these ripout operations would be
23 conducted aboard ship by the workers?

24 A. I had to work at finding out. Over a course
25 of time, I would get pretty good at finding out and knowing
26 what was going on.

27 Q. But no one was communicating to you?

28 A. They would not -- when a ripout would occur,

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1 I would not be notified. Their schedule and my schedule
2 didn't always coincide, so I generally did my sampling
3 work on my own. I would ask around. I could ask a foreman.
4 I could ask different people about what was going on
5 and find out. I generally showed up unannounced.

6 Q. Earlier, we were talking about the measuring
7 of dust in the air, and I'd like to have you explain
8 in more detail the standards that are used with respect
9 to so many million particles per cubic foot of air.

10 A. You're referring to the threshold limit value.

11 Q. Yes.

12 A. Well, the threshold limit value was a standard
13 that was established -- generally the agency that established
14 a threshold limit value for a particular contaminant
15 was the Threshold Value Committee of the American Conference
16 of Governmental Industrial Hygienists.

17 And they were the people that initially made up
18 this list and set the standards.

19 Q. Was that standard at one time five million
20 particles per cubic foot of air?

21 A. Yes.

22 Q. Do you remember approximately in what year
23 that standard was lowered, and what it was lowered to?

24 A. To my best recollection, the standards remained
25 at five, and then, of course, the standard changed with
26 the change in method, and that would have been somewhere
27 in the area of 1971, I believe.

28 And with the method, the standard changed, and

1 I think it initially started out at 12 fibers per cubic
2 centimeter of air, was the threshold limit value.

3 Q. Could you explain to us what a milliliter
4 is and what a centimeter is?

5 A. Well, a milliliter is actually a cubic centimeter
6 of space -- cubic centimeter of water at standard temperature
7 and pressure. This is nitpicking. For all practical
8 purposes, in the area we're talking about, just to be
9 practical, a cc and a milliliter are about the same thing
10 in the context of how accurate we are in the rest of
11 our -- this is nitpicking, but there is a definite difference
12 between a cc and a milliliter, in definition.

13 Q. Have you, as an industrial hygienist, at
14 any time during your work experience ever actually looked
15 at asbestos fibers through a microscope?

16 A. Yes.

17 Q. What do those look like?

18 A. Well, amosite is rather coarse fibrous material
19 which I didn't see too often.

20 The other type of asbestos was chrysotile fibers
21 that was generally used in most of the asbestos products
22 that I was involved with, and they were black, small
23 fibers of various lengths. Under high magnification,
24 they looked like they had frayed ends. If the material
25 had been used in, say, a fabric, came from a fabric,
26 the fibers were generally in a curled condition, because
27 you could tell the difference, whether it was from a
28 cloth or from preformed material. Preformed material

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1 had fibers which were straight, and you would see curved
2 fibers that had been stretched out of shape because they
3 were woven. If you want to know how they looked, that's
4 the way they looked.

5 Q. For better understanding for myself as well
6 as the jurors in this case, if you were to view silica
7 dust under a high-powered microscope, and also look at
8 asbestos fibers, what would the differences be, or similarities,
9 as the case may be?

10 A. Well, silica dust would look, under a microscope
11 like various size spots.

12 Asbestos, if you saw it under a microscope, would
13 be like -- look like a line drawn by maybe a very fine
14 pen. They would be dark, and generally straight.

15 Q. Would the asbestos fibers under a high-powered
16 microscope ever look like bundles, or in bundles?

17 A. The frayed ends would give you a clue to
18 the fact that they are actually bundles of fibrils
19 which are much smaller than the actual fiber itself.
20 It's known that these are made up of bundles of smaller
21 fibrils, which are approximately a hundredth of a micron
22 in diameter.

23 Q. With regard to the various tests that you've
24 mentioned -- and I believe you testified at one time
25 there would be five million parts per cubic --

26 A. Particles.

27 Q. Particles. Excuse me.

28 In your opinion as an industrial hygienist, is

1 there a safe level for workers who are working with asbestos
2 and in and around asbestos dust conditions?

3 A. Given the fact that we know that asbestos
4 had been implicated in causing a higher incidence of
5 cancer of various kinds, including bronchogenic carcinoma,
6 it is my feeling that no level of exposure could be acceptable.

7 Q. Would you explain to us why you terminated
8 your employment as an industrial hygienist with the Long
9 Beach Naval Shipyard on or about February 25th, 1974?

10 A. I found that my workup, medical workup by
11 Dr. Balchum in the prior December, that I had fairly
12 advanced emphysema, complicated by asbestosis, and he
13 advised me to remove myself from the exposure. My exertional
14 capacity had dropped to about 55 percent of what was
15 normal, and --

16 Q. What symptoms and problems have you had since
17 then with respect to breathing or being able to physically
18 do things?

19 A. Well, I'm very short of breath. I don't
20 have very much stamina. At least in the past, I've been
21 more susceptible to bronchoinfections. I've had pneumonia,
22 I think, three times -- at least twice since I got out
23 of the shipyard. And if I get any kind of lung congestion,
24 it just seems to be more severe and takes a long time
25 to get over it. It goes with the territory, of course.

26 Q. Do you experience any pain in any particular
27 part of your body, in your opinion, as a result of the
28 asbestosis?

1 A. Well, there's very little pain, you know,
2 except if you cough or have lung congestion and lung
3 infection. You know, there's that aggravation there,
4 but other than that, as far as I can say, the pain isn't --
5 I can't exert myself and I cannot do the things I would
6 like to do, and I can't do the things I used to do. It
7 limits -- I'm very limited in my physical capacity.

8 Q. Has it, in your opinion, disabled you from
9 being able to engage in work for hire?

10 A. Yes.

11 Q. Do you experience any problem in trying to
12 walk any distances or go up a flight of stairs?

13 A. Yes.

14 Q. Do you understand that you have pleural thickening
15 in the area of your lungs by reason of asbestos exposure?

16 A. Yes.

17 Q. During the period of time that you were an
18 industrial hygienist at the Long Beach Naval Shipyard,
19 did you yourself ever work in the pad shop or work aboard
20 the ships in a ripout operation, aside from your duties
21 as an industrial hygienist?

22 A. No.

23 Q. During the period of time that you were an
24 industrial hygienist, did you have an office?

25 A. Yes.

26 Q. Approximately how far was it from your office
27 to the pad shop, either by fractions of a mile or number
28 of blocks, for comparison purposes?

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1 A. Oh, maybe 300 yards.

2 Q. Approximately how many yards or fractions
3 of a mile would it have been from your office to the
4 docks where the ships would be located during a ripout
5 operation?

6 A. It would vary with which dock it was. Anywhere
7 from 200 yards to 600 yards, maybe further sometimes.

8 Q. Was your office air conditioned during that
9 period of time?

10 A. For most of that period of time, yes.

11 Q. Were you able, through your efforts, to lower
12 the dust level count in the pad shop at one time?

13 A. I can't take credit for too much of what
14 was done in the pad shop. My studies in the pad shop
15 indicated that the exposure in the pad shop was low,
16 and going on into the period where asbestos was eliminated
17 altogether from the pad shop, it was lower.

18 The improvements that occurred there, I guess, in
19 the pad shop were instigated by maybe Webster Ay and
20 the shop themselves. When I came aboard, there was ventilation
21 in there. At the place where they stuffed the pads,
22 there was a hood. They had the wherewithal to wet down
23 the fabric, which was a great help in lowering exposure.

24 But, anyway, the shop got the idea that they would
25 put some ceiling vents in, and ceiling fans, and they
26 also put a false ceiling in there so that the dust wouldn't
27 collect on the rafters and so forth. I think that was
28 the extent of the improvement.

1 Q. Do you remember approximately what those
2 dust level counts would have been before ceiling vents
3 and fans were installed in the pad shop and the false
4 ceiling installed?

5 A. Yes. In the area of one particle, and then
6 depending on the operators, were less, if they were using
7 asbestos there, and there apparently was some -- when
8 I took later samples, there were some residual fibers
9 laying around, and somehow or other they intermittently
10 used some asbestos, but I think it dropped in half or
11 less.

12 The exposures in the pad shop were low, as compared
13 to the situations out on the docks.

14 Q. Are you saying the exposures and levels in
15 the pad shop were low, as compared to where ripout operations
16 were being performed aboard the ships?

17 A. By many, many degrees of magnitude. There's
18 no comparison. In the pad shop, it was a very low situation.
19 In the situations aboard ship, the applications were
20 intermediate exposures, and the ripout were the very
21 high, uncontrollable things that people before me and
22 after me found the same thing, and we'll probably always
23 find it if the same thing occurs. It varied widely,
24 depending on how much, how many people, and this sort
25 of thing, and how they did it.

26 Q. When you mentioned a false ceiling in the
27 pad shop, was that just a matter of lowering the ceiling
28 itself to improve working conditions and reduce the hazards?

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1 A. My recollection is that initially the building
2 had a peaked roof and had girders across that were exposed,
3 and what they did, they put a ceiling underneath the
4 girders and rafters, much as they do in an office building.
5 They used this kind of material that you see here.

6 Q. How was that pad shop referred to, as far
7 as identification? Was it by number, or did it have
8 another name other than "pad shop"?

9 A. Oh, we referred to it as the ladders shop.
10 That was slang. It had a number --

11 Q. Was it 56?

12 A. Well, Shop 56 identified -- the pipe coverers,
13 and insulators were a part of Shop 56.

14 Q. Would the terminology "ladder" and "pipe fitter"
15 and "insulator" be one and the same?

16 A. Interchangeable. "Ladder" was a nickname for
17 "pipe coverer and insulator."

18 Q. When you first went to the Long Beach Naval Shipyard,
19 were you aware of an incident that had happened because of bad
20 air, where people had died or become ill?

21 A. Yes.

22 Q. How many had died?

23 A. I think we lost two men. My recollection --
24 it was either two or three men. I think, two.

25 Q. What was the cause of those deaths?

26 A. Well, that happened in December of 1967.
27 It was aboard the USS HORNET, and the men were overcome --
28 I think three were overcome in addition to the two that died.

1 They were working as sandblasters, I believe, and in
2 confined spaces, I think probably the double bottoms
3 of this aircraft carrier, blasting off the old paint,
4 and this operation required supplied air. They used
5 air-supplied respirators, plus they covered with canvas
6 suits. And a fire occurred in one of the compressor
7 rooms inside the compressed-air pipes, and combustion
8 occurred and created or caused to form a large concentration
9 of carbon monoxide and, naturally, oxygen depletion,
10 and this was put into the compressed-air system, and
11 these workers were near that particular compressor house
12 and received this kind of contaminated air, and it killed
13 two of them and overcome three.

14 Q. After you started to work at the Long Beach
15 Naval Shipyard as an industrial hygienist, did you have
16 any responsibility to either test or carry out surveillance
17 over the purity of the shipyard compressed-air system?

18 A. Yes. This became a routine thing. Periodically,
19 I was required to test the compressed-air quality.

20 Q. You mentioned wetting fabric in the pad shop,
21 and I'm wondering whether or not they ever attempted
22 to wet or spray down the holds of the ships, various
23 ships in the areas where the ripout operations were being
24 conducted.

25 A. No.

26 Q. Was it not feasible?

27 A. It was not feasible from a safety point of
28 view.

1 Q. Why was that?

2 A. During conditions of ripout, there are a
3 lot of temporary electrical equipment installed, rather
4 open connections, and this sort of thing, which could --
5 with a lot of wetness around -- cause short circuits
6 and possible electrocution.

7 Access to these places is by ladders, and walking
8 around in these places is over steel catwalks of various
9 kinds, which, when slippery, would make it easy to fall
10 down, and it just wasn't feasible to use water in that
11 situation. It may have not helped too much.

12 Additionally, I'll clue you in on something. Most
13 of the insulation, after it is applied, is painted, and
14 that aspect of it is impervious to water, anyway. They
15 put a coat of white paint on it.

16 Q. With respect to the dust level counts that
17 you would have taken as an industrial hygienist at the
18 Long Beach Naval Shipyard, approximately how much time
19 would be involved in the taking of a dust level count
20 during a ripout operation aboard ship until you had the
21 results of that particular test?

22 A. In the millipore filter method, you had
23 to get the sample counted within 24 hours. That was
24 for certain. You probably could get the results within --
25 after you left the space, if it was really necessary,
26 within an hour, hour and a half. But -- if you were
27 dealing with one sample.

28 It would take, oh, I'd say 30, approximately 30,

1 45 minutes for each sample. Maybe an hour. You had to
2 go from one sample to another. To do it right, it was
3 a very tedious, time-consuming task, really.

4 Q. Could the dust levels change from one reading
5 considerably, dependent upon the type of intensity was
6 being engaged in in the ripout work?

7 A. Yes.

8 Q. As an industrial hygienist, would it be your
9 opinion that whatever reading you did obtain during a
10 ripout operation, as far as the dust level count concerning
11 asbestos was concerned, that that may not be accurate
12 within the next hour or few hours of that day?

13 A. Yes.

14 Q. It would change and could change drastically.

15 A. Yes.

16 Q. As an industrial hygienist during the time
17 that you worked at the Long Beach Naval Shipyard, did
18 you have any means by which you could measure the asbestos
19 exposure of any particular worker who's involved in a
20 ripout operation or working with asbestos products?

21 A. No.

22 Q. Would you have any way of knowing whether
23 or not any one individual would be overexposed to asbestos
24 hazards?

25 A. No.

26 Q. As an industrial hygienist, in the work that
27 you have performed and experience that you have had,
28 to your knowledge, is it true that individuals vary

1 with respect to their susceptibility to toxic
2 substances as well as to the hazards of asbestos?

3 A. Yes.

4 Q. Was there any type of protective clothing
5 of any kind whatsoever that was furnished to asbestos
6 workers at the Long Beach Naval Shipyard?

7 A. Yes.

8 Q. What did this consist of?

9 A. At some time in the early seventies, each
10 pipe coverer and insulator was issued a pair of cleanup
11 coveralls at the beginning of each shift, and these coveralls
12 were turned in at the end of the shift, and then laundered.

13 Q. In what year would that program have become
14 effective?

15 A. To the best of my knowledge, it was around
16 1972.

17 Q. Before that time, that practice was not routinely
18 carried out or engaged in?

19 A. They were not given coveralls, no.

20 Q. Did there come a time in your experience
21 at the Long Beach Naval Shipyard when warning signs would
22 be installed aboard the ships, warning personnel to stay
23 out of particular areas that a ripout task was being
24 engaged in?

25 A. Yes.

26 Q. What would have been the naval terminology
27 for that?

28 A. Posted it.

1 Q. That would be to exclude the Navy personnel
2 other than the workers that were actually engaged in
3 the job itself?

4 A. That was the purpose of posting it, yes.

5 Q. I realize that the asbestos workers at the
6 Long Beach Naval Shipyard were not, in fact, given combat
7 pay during the time they worked there, but did they at
8 any particular year that you can recall receive extra
9 pay which was designated as hazardous or dirty pay?

10 A. You floored me with that "combat pay."

11 Q. Let's take "combat pay" out of the question
12 and ask you whether or not you can remember any year
13 in which asbestos workers were given an increase in their
14 hourly pay by reason of their hazardous duty in working
15 with asbestos products.

16 A. Yes. I forget now what we called it. It
17 was on the tip of my tongue. It was -- it was pay that
18 was given for -- supposedly to employees that were involved
19 in work that was hazardous, the presumption being that
20 the Navy could not completely control the hazards, so
21 that they were given this extra pay.

22 Q. That would be for asbestos workers or workers
23 working with asbestos products?

24 A. In the Long Beach Naval Shipyard, it was
25 given to asbestos workers.

26 Q. You had testified earlier with respect to
27 some of the locations of asbestos products at the Long
28 Beach Naval Shipyard, and I believe you mentioned some

1 of the asbestos product materials were located on barges.
2 Where else, either in the Long Beach Naval Shipyard or
3 adjacent thereto, would you find asbestos products?

4 A. Well, I stated much of the material to be
5 used was simply in cartons all along the piers. It was
6 rather bulky stuff. I think there was an area where they
7 stored some of this material in the shipyard supply area,
8 not a big area, and as I stated, the supply center was
9 adjacent and there were large warehouses where this material
10 was stored. So where you would see it would be on the
11 piers, mostly.

12 Q. In carrying out your job duties and job-
13 related duties as an industrial hygienist, would you
14 have had an opportunity to have observed the storage
15 of asbestos products throughout the Long Beach Naval
16 Shipyard?

17 A. Yes.

18 Q. During the period of time from March of '67
19 to February of '74, did you see or observe any cartons
20 which contained the name of "Johns-Manville" as an asbestos
21 manufacturer?

22 A. Yes.

23 Q. Based upon your experience and your
24 observations, what would be your best opinion as to the
25 percentage of Johns-Manville asbestos products at the
26 Long Beach Naval Shipyard during the period of time that
27 you were there?

28 A. Well, what I saw were cartons with the name

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1 on it, in the piers, going to and from. I guess
2 Johns-Manville -- I believe Johns-Manville would be about
3 70 percent of what I saw.

4 Q. That would be in comparison to asbestos products
5 of other manufacturers?

6 A. Yes.

7 Q. Did any of the cartons that contained Johns-
8 Manville asbestos products during the period of time
9 that you were at the Long Beach Naval Shipyard ever have
10 any markings or designation or printing as to what the
11 percentage was of asbestos contained in that particular
12 carton?

13 A. No.

14 Q. Would you have any way, during the period
15 of time that you were at the Long Beach Naval Shipyard,
16 in looking at a Johns-Manville carton to determine whether
17 or not it contained, for example, a hundred percent asbestos
18 content, as distinguished from a 50 percent or lower
19 content in that particular carton?

20 A. I don't quite understand your question. You
21 mean by looking at the carton, would I know how much
22 was in it?

23 Q. Yes. What percentage of asbestos was contained
24 in that particular product of Johns-Manville.

25 A. There was no marking on the carton that I
26 remember, saying how much asbestos was in the product.
27 However, I know what was in their products.

28 Q. During the period of time that you were at

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1 the Long Beach Naval Shipyard from March of 1967 to February
2 of 1974, did you ever at any time observe any Johns-
3 Manville cartons which contained any warning of any kind?

4 A. I can't remember any warnings. There may
5 have or may have not been, but I don't remember seeing
6 any.

7 Q. I believe earlier you testified as to there
8 being a lot of noise and hearing problems at the shipyard,
9 and I can't remember what percentage of your time you
10 testified to that you may have spent during the time
11 you were at the Long Beach Naval Shipyard working with
12 hearing problems and other problems, as distinguished
13 from working with the asbestos hazard problems.

14 A. No. I said it was a guess, and I didn't
15 want to do any guessing. It would just be pure guesswork
16 on my part.

17 Q. You had, then, a number of duties other than
18 taking measurements of air in your job as an industrial
19 hygienist?

20 A. Yes, I did.

21 Q. Would you tell us what some of those other
22 duties were?

23 A. Well, as a routine, I did have surveillance
24 of the compressed air.

25 There were mercury problems throughout the yard
26 that needed constant attention.

27 Solvent vapor problems in a lot of locations caused
28 problems intermittently.

1 Other dust problems, because of the sandblasting
2 that was going on.

3 Men in the shops, for instance, the foundry, needed
4 attention.

5 And from time to time, when things would pop up,
6 like a welding material containing lead had to be looked
7 at.

8 Lots of painting went on, coating work. Throughout
9 the shops, there were paint booths and different places

10 There were solvent dipping tanks. There was the
11 electroplating area that required attention.

12 We had made -- were the manufacturer of plastic
13 products in another area. Had to be some surveillance
14 there.

15 Q. Do you recall during the period of time that
16 you were at the Long Beach Naval Shipyard that a Mr.
17 Reitz, or Rietze, R-e-i-t-z, who was a representative
18 of Johns-Manville, came to the shipyard to go on a tour?

19 A. He came with a group that was from Dr. Selikoff's
20 organization and made a tour of the shipyard and looked
21 at some of the problems around.

22 Q. Do you remember in which year Mr. Reitze,
23 the Johns-Manville representative, would have come to
24 the Long Beach Naval Shipyard? Would it have been after
25 1970 or before?

26 A. Oh, my recollection is -- it's on the record
27 somewhere, I think. I consulted my log and found it.

28 Q. Could you please do that and insert that

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1 year, if you can't remember it now, before you read and
2 sign your deposition?

3 A. I think I can find it.

4 MR. HOCH: You've got your notes.

5 THE WITNESS: These are some notes that I made.
6 I think it's in here.

7 The Selikoff group was in March of '69.

8 Q. BY MR. KELLY: Would that have been the same
9 year that Mr. Reitze was there?

10 A. He was with -- accompanied that group.

11 Q. Who was Dr. Selikoff, insofar as his relationship
12 or concern with the Long Beach Naval Shipyard?

13 A. Dr. Selikoff had no direct connection with
14 the shipyard.

15 Q. What was his purpose of being there, if you
16 know?

17 A. At that time, I don't think he himself was
18 there. It was some people from his staff and his office.

19 Q. What was their reason for being there in
20 '69?

21 A. Dr. Selikoff had very good rapport with the
22 pipe coverers and insulators union nationally, and the
23 people that he was examining -- I think he was examining,
24 through his contact with that union, and Webb Ay, of
25 course, was, I think, president at one time of the pipe
26 coverers and insulators, and he had access to union funds,
27 and I think it was through his -- and maybe probably
28 the union paid for the expenses for the trip. I don't

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1 know this for sure, but this is an assumption. I know
2 the shipyard wouldn't pay for it.

3 Q. During the time Mr. Reitze was there in 1969
4 as a representative of Johns-Manville, did he conduct
5 any studies, as far as the dust level counts were concerned?

6 A. No.

7 Q. As an industrial hygienist, and before the
8 period of time you went to work for the Long Beach Naval
9 Shipyard in 1967, what, if any, inherently dangerous
10 characteristics were you aware of that related to asbestos
11 and asbestos products?

12 A. Before 1967?

13 Q. Yes.

14 A. Well, my knowledge probably at that time,
15 I was aware that asbestos fibers could cause asbestosis,
16 which is fibrosis of the lungs, [and had some knowledge,
17 cursory knowledge, that it could cause cancer. Not real
18 extensive knowledge of it. I probably heard the word
19 "mesothelioma" maybe two years prior to that, and was
20 somewhat aware that asbestos could cause specifically
21 this type of cancer.]

22 With the Pennsylvania Department of Health, I dealt
23 with a very large gamut of contamination, and had a wide
24 variety of things to look at, and we didn't get into
25 it as deeply as -- you know, my knowledge increased as
26 I went along. It's very hard, in retrospect, to figure
27 out when I learned what, and, you know, as the thing
28 became more important and there was more published, I

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1 learned more about it.

2 Q. But you were aware of these things and it
3 was well published in the literature in your field before
4 you went to work for the Long Beach Naval Shipyard as
5 to the hazards and dangers of asbestos and asbestos products?

6 A. There was material available. Probably more
7 material than I even knew about available. I didn't
8 know about all the material that was available. You
9 know, with my level of interest at that time, I went
10 so far, and working for the state government, you know,
11 if it was over and too much, you had to do something
12 about it. It was very pragmatic in that situation. If
13 it wasn't, you didn't have a good reason to enforce anything.
14 And that was about the extent of it.

15 Q. During the approximate 7-year period of time
16 that you were an industrial hygienist at the Long Beach
17 Naval Shipyard, do you know whether or not there was
18 any asbestos coordinator between Johns-Manville and the
19 naval shipyard?

20 A. I know of no coordinator, no.

21 Q. For the purpose of my questions and for brevity,
22 I'll just refer to Johns-Manville as "J-M," and I want
23 to ask you whether or not J-M ever provided you, as the
24 industrial hygienist at the Long Beach Naval Shipyard,
25 with any means of identifying the products contained in
26 its containers so that you'd know which were asbestos
27 or nonasbestos products.

28 A. No.

1 Q. Did J-M, at any period of time that you were
2 at the Long Beach Naval Shipyard, ever provide you with
3 any type of safety respirators or masks?

4 A. Did J-M?

5 Q. Yes.

6 A. No.

7 Q. Did J-M, at any time that you were at the
8 Long Beach Naval Shipyard, ever provide you with any
9 printed literature, leaflets, pamphlets, or any other
10 type of warnings as to health hazards for the asbestos
11 workers at the shipyard?

12 A. No.

13 Q. Did J-M ever provide you with any literature,
14 leaflets or pamphlets advising what type of protective
15 clothing or what type of protective measures should be
16 taken or utilized by asbestos workers?

17 A. No.

18 Q. Did J-M ever do or conduct any individual
19 monitoring of any of the asbestos workers at the Long
20 Beach Naval Shipyard while you were there?

21 A. No.

22 Q. Did J-M ever do or conduct any individual
23 monitoring of the asbestos workers who were engaged in
24 the ripouts in the Long Beach Naval Shipyard?

25 A. No.

26 Q. Did J-M ever advise or recommend that periodic
27 physical exams should be conducted of the asbestos workers
28 at the Long Beach Naval Shipyard while you were there?

1 A. No.

2 Q. Did J-M ever advise or recommend that periodic
3 X-rays should be taken of asbestos workers at the Long
4 Beach Naval Shipyard while you were there?

5 A. No.

6 Q. Did J-M at any time ever advise you while
7 you were at the Long Beach Naval Shipyard as to the fiber
8 release characteristics of any of its asbestos products
9 that were being used at the shipyard?

10 A. No.

11 Q. Did J-M ever advise you at any time while
12 you were at the Long Beach Naval Shipyard or instruct
13 you how to measure the fiber release characteristics
14 of any of its asbestos products used at the shipyard?

15 A. No.

16 Q. Did J-M ever furnish you with any written
17 or printed instructions for the control of asbestos dust
18 during the ripout type of work that was done aboard any
19 of the ships at the Long Beach Naval Shipyard?

20 A. No.

21 MR. KELLY: You may examine.

22 MR. HOCH: Mr. Manning, would you like to take a
23 break?

24 MR. KELLY: Surely.

25 (Recess taken from 3:10 p.m. to 3:15 p.m.)

26 (Mr. Michael McCarthy enters the deposition
27 room.)

28 MR. HOCH: Back on the record.

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EXAMINATION

BY MR. HOCH:

Q. Mr. Manning, to the best of your recollection, was there a program of periodic X-rays for insulators established at the shipyard when you arrived?

A. Yes.

Q. They were supposed to have X-rays how often?

A. Once each year.

Q. That was pursuant to some rule or regulation of the Navy?

A. It was at least shipyard practice, and laid down by the medical department to do that.

Q. Is it also correct that to get into the Long Beach Naval Shipyard, you have to have some kind of clearance? You can't just walk in off the street; is that correct?

A. Yes.

Q. Now, in 1969, when Mr. Reitze came, did you know he was a J-M employee?

A. Yes.

Q. Did he tell you that?

A. I had some previous contact with Mr. Reitze somewhere in a conference. He also had attended that conference in New York and had some article in there, I believe. He wrote something in there, as I recall, his viewpoint about the situation.

Q. Were you aware at the time he visited the shipyard that he was actually being paid by J-M, but was working for Dr. Selikoff's group out of Mount Sinai

in New York?

A. I believe I knew that at that time. It was either before or after, but I knew something about the structure, that he was not -- he was still working for J-M and was on loan, was my understanding.

Q. That Mount Sinai group was touring facilities where asbestos was used, including naval bases?

A. Yes.

Q. Are you aware of after that visit whether that group of people from Mount Sinai were publishing anything that was disseminated to workers?

A. Yes, they published.

Q. What kind of things?

A. Well, Dr. Selikoff from time to time published in various journals the results of his ongoing studies of this asbestos situation and the incidence of cancer and his findings as far as incidence of asbestosis, and they did get in -- some of that got into the trade papers, I know, of the asbestos workers.

Q. Wasn't that group also publishing literature on work practice, procedures and safe handling?

A. I have no firsthand knowledge of just what they did print in that regard. The material that I saw was of the incidence of cancer and the incidence of asbestosis and the material in regard to smoking in connection with this.

Q. Before Mr. Reitze and the other members of the group from Mount Sinai arrived at Long Beach, did

1 you clean up your act in the shipyard? I don't mean
2 you personally. I mean the asbestos workers.

3 A. It was my experience that whenever a group
4 from outside came for any kind of tour, it is my belief
5 that the people out in the field were informed that,
6 "The tour's coming, and have your respirators on and
7 try to put on an outside appearance." It was standard
8 there and, I think, other places I worked, the same thing,
9 kind of things occurred.

10 Q. Concerning asbestos-containing thermal insulation
11 products which were used at the shipyard, they varied
12 in their percentage of asbestos fiber, did they not?

13 A. Yes.

14 Q. Some had 5, 10 percent asbestos fiber?

15 A. There were some, I think, had 10, 10 to 15
16 percent. I don't recall anything as low as 5 percent,
17 that I know of. It is possible it could have been.

18 Q. With reference to the J-M boxes that you
19 had seen around the shipyard, were you aware that during
20 your tenure at the shipyard, that J-M made products other
21 than asbestos-containing thermal insulation material
22 which was used at the shipyard?

23 A. Other than thermal insulation material? It
24 didn't come to my notice, I don't believe.

25 Q. They may or may not have?

26 A. May or may not have.

27 Q. At some point in time during your tenure
28 at the shipyard, were you aware at any time that J-M

1 produced and sold a nonasbestos-containing thermal insulation
2 product?

3 A. At any time?

4 Q. At any time.

5 A. No, I didn't become aware that they did this.
6 I was able to tell glass fiber from asbestos fiber through
7 inspection, and it's just a matter of recollection. It
8 could have been or could not have been. I don't remember.
9 Johns-Manville is not connected with glass fiber in my
10 mind now.

11 Q. A lot of the asbestos-containing products
12 that were used at the shipyard for insulation, whether
13 they be J-M or otherwise, were a calcium silicate-based
14 product; is that correct?

15 A. That's correct.

16 Q. Were you aware of any J-M product which was
17 a calcium silicate product that did not contain asbestos
18 and was used at the shipyard?

19 A. No.

20 Q. They may or may not; you just don't know?

21 A. I didn't see it, or if it happened, it happened
22 some period that I didn't immediately become aware of.
23 I just can't remember anything.

24 Q. When did the Navy start posting warning signs
25 on their asbestos operations?

26 A. I would believe in 1973.

27 Q. Concerning protective clothing, you mentioned
28 some coveralls. Was not there some sort of Navy directive

1 says, "I'll make respirators mandatory." And that was
2 the solution, and this was his viewpoint.

3 And so, with that kind of viewpoint, all other things
4 were unnecessary.

5 Q. Did Captain Chapman ever raise any cost problems
6 concerning this coveralls program?

7 A. It was my understanding that it was considered
8 an unnecessary expense from his viewpoint, and they opposed
9 it, and these things came to my knowledge after the fact
10 a considerable time.

11 Q. We've used the term "ripout" during the course
12 of this deposition, and you've described it to us. Just
13 so it is clear, "ripout," as you used it, is a general
14 term for a specific operation. Correct?

15 A. It is a general term used for removal.

16 Q. It could be a ripout of a 1-foot length of
17 pipe or a 30-foot length of pipe? We'd still call it
18 "ripout"?

19 A. That's correct.

20 Q. And the insulators and ladders who did the
21 ripout wouldn't necessarily always be doing a ripout operation
22 on an enormous quantity of piping? Sometimes it could
23 be little. Correct?

24 A. It could vary from a little to --

25 Q. An entire --

26 A. -- a big job down to -- it was all called
27 "ripout." Depending on the size of the job and the circum-
28 stances, the concentration they were exposed to varied,

1 at some point in time which mandated this procedure?

2 A. Yes.

3 Q. Was that a 1969 requirement that was sent
4 down by the organization in the Navy that controlled
5 the shipyard? I think it was called NAVSHIPS then.

6 A. NAVFACS.

7 Q. NAVFACS.

8 A. The names changed. I think at that time
9 it was called Naval Facilities Command, and that would
10 be changed to NAVSHIP.

11 Q. Anyway, it was in that time period.

12 A. They sent an instruction down that I became
13 aware of sometime in that period, yes.

14 Q. Was it difficult implementing that instruction?

15 A. Yes.

16 Q. Why?

17 A. The shipyard management, I think, in the
18 person, I think, of the production officer, and possibly
19 the shop superintendent, felt that it was not necessary
20 and was superfluous. The production officer at that
21 time was a Captain Chapman, and he was a naval officer
22 who had strong ideas, and he, in my presence, addressed
23 some comments to a Commander Barboo, who was a member
24 of BUMED in the area of environmental health in Washington
25 and visiting there. We had come down from the shipyard
26 commander's office after discussing the asbestos problem,
27 and he walked up and addressed Commander Barboo, and
28 says, "I have the answer to the asbestos problem." He

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1 but compared to other things, it was high.

2 Q. Right. I understand.

3 Their environment would change from job to job and
4 hour to hour. Correct?

5 A. Yes.

6 Q. Concerning the hazard pay that insulators
7 got, that was a pay differential over and above their
8 standard salary. Correct?

9 A. Yes. It was known as differential pay.

10 Q. Are you aware of any requirement by the Navy
11 that for an individual to get that pay differential,
12 a dust count would have to be done to substantiate that
13 the environment was above the TLV?

14 A. "Requirement," did you say?

15 Q. Yes.

16 A. No.

17 Q. Was there any rule or regulation at Long
18 Beach that that had to be done?

19 A. No.

20 Q. Anything along that line in terms of an instruc-
21 tion or order that a dust count would have to be done
22 to certify that an area was, quote, hazardous, unquote?

23 A. No requirement. [There was some kind of inquiry
24 made by a Mr. Morley, I remember, that maybe this kind
25 of thing would be desirable, and, of course, monitoring
26 50 or a hundred or 150 employees throughout a shipyard
27 with a staff of one -- this, of course, was a ridiculous
28 thought.]

1 The differential pay was -- I think, the way it
2 turned out, was given if the employee worked with any
3 amount of asbestos, if it was asbestos. And the way
4 it worked out, if it was entirely glass, they didn't
5 get it. And that was the way it worked out.

6 Q. When you took measurements of dust in the
7 pad shop, would it refresh your recollection if I told
8 you that the measurements before renovation, you found
9 .7 million particles per cubic foot of air, and after,
10 it was .26?

11 A. That would be accurate.

12 Q. And the then existing TLV was five million
13 particles per cubic foot?

14 A. Yes.

15 Q. As an aside, Mr. Manning, your present physical
16 condition, your emphysema, was in part based upon your
17 own smoking history, correct, as far as you know, and
18 your exposure to workplace toxins other than asbestos?

19 MR. KELLY: Excuse me. Off the record.

20 (A discussion is held off the record.)

21 Q. BY MR. HOCH: Mr. Manning, you do have emphysema.
22 Correct?

23 A. Yes.

24 Q. Have your doctors told you you have emphysema
25 because of smoking and because of your exposure to other
26 toxic agents during your career as an industrial hygienist
27 and chemist?

28 A. No.

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1 Q. Did they say it was due to smoking?

2 A. No.

3 Q. What did they say it was due to?

4 A. My smoking stopped in 1961. If anybody wants
5 to put it on the record, I think it is.

6 Q. Several times.

7 A. I don't think, as I understand, medical science
8 understands what causes emphysema entirely. This is
9 my understanding. I'm not a doctor. I do have -- am
10 one of the susceptible people to lung damage because
11 I have a genetic defect -- I think this is on the record --
12 an alpha-antitrypsin deficiency that Balchum found in
13 1973 and '4, that predisposes me to have lung damage.

14 Q. The TLV's that we've been discussing, when
15 the American Conference of Governmental Industrial Hygienists
16 sets those, or recommends the setting of those standards,
17 those are based on the best known evidence, scientific
18 and medical, at the time they're made; is that correct?

19 A. They're based on whatever scientific material
20 is available at that time. Dr. Stokinger was the chairman
21 of that committee, and he gathered all the material he
22 could find, I guess, on a particular hazard, and they
23 debated and discussed these things and come up with a
24 number.

25 Q. Did you ever recommend different types of
26 ventilation systems to be used aboard vessels where asbestos
27 operations were going on, to get rid of the fiber in
28 the air?

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1 A. I wrote a report in 1969. I probably --
2 I think I put in there to use as much ventilation as
3 could be put -- brought to bear under the circumstances,
4 which, in a shipboard condition, is limited because of
5 space problems and just the general condition of the
6 work area. The amount of ventilation that you can use
7 or bring to bear in that situation is just -- there's
8 a limit to it.

9 Q. In terms of protecting the worker, the use
10 of ventilation such as what you recommended would be
11 one method. Is it also correct that the use of respirator,
12 despite it being uncomfortable, is another method of
13 protecting the worker from inhaling asbestos dust?

14 A. Oh, yes.

15 Q. In industrial hygiene, occasionally you have
16 to make a trade-off between some comfort and safety.
17 Correct?

18 A. Well, that's kind of a leading question,
19 I think.

20 Q. We're reserving our objections.

21 MR. KELLY: He just made one. He's well trained.

22 THE WITNESS: I, as an industrial hygienist, can
23 make the recommendation that you apply all the ventilation
24 that you can apply, which, in this case, turns out to
25 be general ventilation. There is no way in that complicated
26 machinery-infested situation, the way it was, to apply
27 what we call local ventilation where you can get down
28 and get right at the source of the contamination and

1 suck it away. This was not possible.

2 And I did recommend that they use the respirators,
3 hoping that they would wear them just as much as possible.
4 This depended on the individual. Sometimes I would observe
5 maybe the younger people would be more apt to wear respirators,
6 and the old guy at 65 years old, who had been exposed
7 for 35 years, and maybe, "What the hell's a respirator
8 going to do me now? I've had it." I couldn't tell him,
9 "Yeah, that's okay," but he had a point, you know.

10 Q. Nonetheless, you did recommend the use of
11 respirators and respirators were made available to the
12 insulators and the helpers?

13 A. Yes.

14 MR. HOCH: Thank you. I have no other questions.

15 (Mr. Hoch leaves the deposition room.)
16

17 EXAMINATION

18 BY MR. KELLY:

19 Q. Mr. Manning, how many periodic X-rays did
20 you have while you were at the Long Beach Naval Shipyard
21 during that approximate 7-year period?

22 A. I wasn't included in the periodic program.

23 Q. Then I'll eliminate "periodic" from my question,
24 and just ask you: How many X-rays, all together, can
25 you remember having during that approximate 7-year
26 period?

27 A. Oh, I may have had as many as four. At least
28 four.

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1 Q. As an industrial hygienist, and based upon
2 your education, training, and experience, as well as
3 the information and knowledge that you gained while you
4 were at the Long Beach Naval Shipyard during that approximate
5 7-year period, other than X-rays, do you know of any
6 other way or ways in which it can be determined that
7 a person has asbestosis?

8 A. There are some other methods that can contribute,
9 observations that can contribute to the diagnosis of
10 asbestosis besides the X-ray, but the X-ray is the principal
11 tool that's used to diagnose -- in the period that I
12 was there, to diagnose asbestosis. There are other symptoms
13 that they bring, like clubbing of the fingers. Of course
14 the incidence of what they call dyspnea or shortness
15 of breath. And as an auxiliary way of determining the
16 condition of an employee, there were pulmonary function
17 tests performed on these particular individuals.

18 Q. In which year at the Long Beach Naval Shipyard
19 did they first perform pulmonary function tests upon
20 any workers who were working with asbestos products?

21 A. It was prior to my arrival. I don't know
22 how many years prior, but it was maybe one or two years
23 prior. The pulmonary function test program was in effect,
24 I think, probably one year prior to my arrival. They
25 started a program of giving each individual in the pipe
26 coverers and insulators trade a pulmonary function test,
27 and it was performed at Memorial Hospital.

28 Q. How frequent was that pulmonary function

1 test given to each asbestos worker during the period
2 of time that you were at the Long Beach Naval Shipyard?

3 A. It was once each year.

4 Q. Do you know in which year X-rays were given
5 to each and every worker at the Long Beach Naval Shipyard
6 who worked with asbestos?

7 A. No, I don't. It was in effect when I went
8 there, and it had been in effect for some period of time.
9 I just don't know.

10 Q. Did you keep any records in your department
11 as to which workers had or had not had annual X-rays
12 taken at the Long Beach Naval Shipyard?

13 A. Did I keep records?

14 Q. Yes.

15 A. For several years, when I initially went
16 there, and for several years afterwards, I examined the
17 X-ray reports from the radiologist, and if there was
18 anything unusual, I recorded it.

19 Q. Do you have any independent recollection
20 during the time that you were the industrial hygienist
21 with the Long Beach Naval Shipyard of seeing any X-ray
22 reports of any of the workers who worked with asbestos,
23 that they did, in fact, have evidence of asbestosis on
24 their X-rays?

25 A. There was, in fact, I think, to my recollection,
26 one individual who was specifically diagnosed as having
27 asbestosis by the radiologist, who was --

28 Q. Excuse me. Go ahead.

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1 A. That's the only one.

2 Q. Was that when you first came there, or was
3 that later on?

4 A. There was one individual that I remember.
5 His name was Hathaway, that had asbestosis, according
6 to the person, the doctor, who was reading the
7 X-rays.

8 Q. Do you remember which year you learned this?

9 A. I learned this in 1967. He wasn't any better
10 in '68. I know that.

11 Q. Are you aware of what would have been the
12 highest percentage of asbestos content that would have
13 been contained in any of the Johns-Manville products
14 that were used at the Long Beach Naval Shipyard when
15 you were there?

16 A. The products that I came in contact with
17 most -- there's a possibility that I don't know all the
18 products that were used, but the most frequently observed
19 product in use was the preformed --

20 Q. Blocks?

21 A. -- blocks and pipe covering.

22 Q. What percentage of asbestos would those have?

23 A. It was supposed to have in the order of 10
24 to 15 percent asbestos fiber, and the rest was calcium
25 silicate.

26 Q. You had given a figure earlier of 10 to 15
27 percent. Was that the lowest figure or the highest figure
28 that you observed?

1 A. My belief is, as I recall, the figure we
2 generally accepted was 15 percent and 85 percent calcium
3 silicate. It could have varied.

4 Q. With regard to the threshold limit values,
5 you were asked the question as to whether or not those
6 were based upon the best known scientific material that
7 was available at that time, and my question is whether
8 or not those TLV values actually accurately reflected
9 the number of asbestos fibers as distinguished from a
10 gross contamination count in the air.

11 A. Well, I think the counting method prior to
12 1972, I think, was the gross count that we mentioned.
13 The impinger method was used back a long time. I don't
14 know when it came into use, but it was the initial method
15 for counting silica dust, and it was just transferred
16 over into counting -- the same method was used to count
17 asbestos. That was an old method.

18 Q. But that old method did not, in fact, actually
19 count the number of asbestos fibers that was in the
20 dust?

21 A. No, it did not.

22 MR. KELLY: I have no further questions.

23 MR. MCCARTHY: Let me take a minute to check with
24 Mr. Hoch.

25 MR. KELLY: Sure.

26 (A discussion is held off the record.)

27 (Mr. Hoch enters the deposition room.)

28 MR. HOCH: I have no other questions.

1 MR. KELLY: May we stipulate that the deposition
2 be concluded, and then off the record for housekeeping
3 purposes.

4 (A discussion is held off the record.)

5 MR. HOCH: We've been off the record discussing
6 stipulations to the deposition, and I think we have reached
7 an agreement that this deposition transcript will be
8 expedited. Hopefully, it will be in the hands of Mr.
9 Steinberg by the middle of next week. He will then discuss
10 the deposition as need be with Mr. Manning, and I request
11 that Mr. Manning read over the transcript and make any
12 corrections necessary and that it be signed in front
13 of a notary, and that the original then be sent to you
14 for filing with the court. Or do you want us to do that?

15 MR. KELLY: Why don't you have the original sent
16 directly to the Wyoming Clerk of the Court in Cheyenne,
17 Wyoming, and we'll have our copy to work with.

18 MR. HOCH: That's fine. And if, for some reason,
19 the original of the deposition is not so filed with the
20 court by the day of trial, may it be stipulated that
21 a copy can be used in lieu of the original?

22 MR. KELLY: That's agreeable.
23
24
25
26
27
28

SHELDON H. MANNING

STATE OF CALIFORNIA) SS

I, _____, a Notary Public in
and for the State of California, do hereby certify:

That on the _____ day of _____, 19____,
before me personally appeared _____,
the witness whose deposition appears hereinbefore;

That the said witness was by me duly advised of the
right to make such changes and corrections in the within
transcript as might be necessary in order to render the same
true and correct;

That the said witness stated to me that the said
deposition had been read to or by _____, and _____, having
made such changes and corrections as _____ desired, thereupon
subscribed and swore to said deposition in my presence.

IN WITNESS WHEREOF, I have hereunto subscribed my
name and affixed my seal of office this _____ day of
_____, 19____.

Notary Public in and for
the State of California.

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STATE OF CALIFORNIA) SS

I, Lucia Moskal, CSR, a
Notary Public in and for the State of California, do hereby
certify:

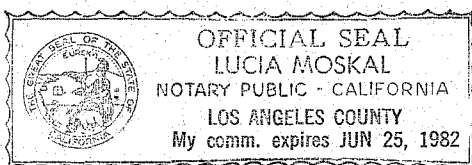
That, prior to being examined, the witness named in the
foregoing deposition was by me duly sworn to testify the truth,
the whole truth and nothing but the truth.

That said deposition was taken down by me in shorthand
at the time and place therein named and thereafter reduced to
typewriting under my direction.

I further certify that it was stipulated by and between
counsel that said deposition may be read, corrected and signed
by the witness before any notary public.

I further certify that I have no interest in the event
of the action.

WITNESS my hand and seal this 15th day of
December, 19 80.



Lucia Moskal
LUCIA MOSKAL, CSR 1222
Registered Professional Reporter

Notary Public in and for
the State of California.

FILE COPY

SHM8002

Sheldon H. Manning
Hance
USDC/WY 12/12/80

DEPARTMENT OF THE NAVY
Bureau of Medicine and Surgery
Washington, D.C. 20390

BUMED 6270.3D
BUMED-732-mo
15 February 1966

BUMED INSTRUCTION 6270.3D

From: Chief, Bureau of Medicine and Surgery
To: All Ships and Stations

Subj: Threshold limit values for toxic materials

Encl: (1) Threshold limit values

1. Purpose. To establish as a basic reference the threshold limit values of toxic materials, adopted by the American Conference of Governmental Industrial Hygienists, reprinted as enclosure (1) with their permission.

2. Cancellation. BUMED Instruction 6270.3C is hereby superseded and canceled.

3. General

a. Threshold Limits. The threshold limit values contained in enclosure (1) are based on the best available toxicological information, long-term industrial experience, and experimental studies. Inasmuch as these values are constantly being reevaluated, revisions or additions will be made as further information becomes available.

b. Limitations. The enclosed listing of threshold limit values for various chemicals does not constitute authority for the procurement or use of these items.

c. Abbreviations Used. The following abbreviations are used:

ppm parts per million

mg/m³ milligrams per cubic meter

m.p.p.c.f. million particles per cubic foot

4. Action. The medical officer or medical department representative of each ship and station concerned shall:

a. Utilize the information contained in enclosure (1) to assist in the identification and control of potential industrial health hazards.

b. Make recommendations to the commanding officer for specific corrective actions, when required.

c. Request any needed information and advice from the Bureau of Medicine and Surgery (Code 73) on chemicals not included in the list.

R. B. BROWN

EXHIBIT # H.
WITNESS # G. WATKIN
Pete S. Hunt, Reporter
DATE: 1-5-80

Distribution:
SNDL Ports 1 and 2
Marine Corps Lists 6/9/53

Copy to:
CNO(Op-09B83 per OPNAVINST 5215.9A)

Stocked At:
Supply & Fiscal Department
Naval Station Code 514.32
Washington, D.C. 20390

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Exhibits
12-12-80
Sheldon H. MANNING

Defts A in file
12-12-80
Wit: S. Manning

ENCLOSURE (3)

MT-PWHD 012171

THRESHOLD LIMIT VALUES

The Threshold Limit Values refer to air-borne concentrations of substances and represent conditions under which it is believed that nearly all workers may be repeatedly exposed, day after day, without adverse effect. Because of wide variation in individual susceptibility, exposure of an occasional individual or even below the threshold limit may not prevent discomfort, aggravation of a pre-existing condition, or occupational illness.

Threshold limits should be used as guides in the control of health hazards and should not be regarded as fine lines between safe and dangerous concentrations. Exceptions are the substances given in Appendix A and certain of the substances given a "C" listing. The values not given a "C" listing refer to time-weighted average concentrations for a normal workday. The amount by which these concentrations may be exceeded for short periods without injury to health depends upon a number of factors such as the nature of the contaminant, whether very high concentrations even for short periods produce acute poisoning, whether the effects are cumulative, the frequency with which high concentrations occur, and the duration of such periods. All must be taken into consideration in arriving at a decision as to whether a hazardous situation exists. Enlightened industrial hygiene practice inclines toward controlling exposures below the limit rather than maintenance at the limit.

Threshold limits are based on the best available information from industrial experience, from experimental human and animal studies, and when possible, from a combination of the three. The basis on which the values are established may differ from substance to substance; protection against impairment of health may be the guiding factor for some, whereas reasonable freedom from irritation, narcosis, nuisance or other forms of stress may dominate the basis for others. The Committee holds to the opinion that limits based on physical irritation should be considered no less binding than those based on physical impairment; growing bodies of evidence indicate that physical irritation may promote and accelerate physical impairment.

Ceiling vs Time-Weighted Average Limits.

Although the time-weighted average concentration provides the most satisfactory, practical way of monitoring air-borne agents for compliance with the limits, there are certain substances for which it is inappropriate. In the latter group are substances which are predominantly fast acting and whose threshold limit is more appropriately based on this particular response. Substances with this type of response are best controlled by a ceiling "C" limit that should

not be exceeded. It is implicit in these definitions that the manner of sampling to determine compliance with the limits for each group must differ; a single brief sample, that is applicable to a "C" limit, is not appropriate to the time-weighted limit; here, a sufficient number of samples are needed to permit a time-weighted average concentration throughout a complete cycle of operations or throughout the work shift.

Whereas the ceiling limit places a definite boundary which concentrations should not be permitted to exceed, the time-weighted average limit requires an explicit limit to the excursions that are permissible above the listed values.

"Skin Notation." Listed substances followed by the designation "Skin" refer to the potential contribution to the over-all exposure by the cutaneous route including mucous membranes and eye, either by air-borne, or more particularly, by direct contact with the substance. Vehicles can alter skin absorption. This attention-calling designation is intended to suggest appropriate measures for the prevention of cutaneous absorption so that the threshold limit is not invalidated.

Mixtures. Special consideration should be given also to the application of these values in assessing the health hazards which may be associated with exposure to mixtures of two or more substances.

"Inert" or Nuisance Particulates. A number of dusts or particulates that occur in the working environment ordinarily produce no specific effects upon prolonged inhalation. Some insoluble substances are classed as inert (e.g. iron and steel dusts, cement, bentonite, silicon carbide, titanium dioxide, cellulose); others may be soluble (starch, soluble oils, calcium carbonate) but are of such a low order of activity that in concentrations ordinarily encountered do not cause physiologic impairment; still others may be rapidly eliminated or destroyed by the body (vegetable oils, glycerine, sucrose). In the case of the insoluble substances, there may be some accumulation in the respiratory passages. In the case of the soluble substances, this accumulation will ordinarily be temporary but may interfere to some extent with respiratory processes. Hence, it is desirable to control the concentrations of such particulates in the air breathed by any individual, in keeping with good industrial hygiene practice.

A threshold limit of $15\text{mg}/\text{m}^3$, or 50 mppcf, whichever is less, is recommended for substances in these categories and for which no specific threshold limits have been assigned. This limit, for a normal work day, does not apply to brief exposures at higher concentrations. Neither

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Enclosure (1)

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does it apply to those substances which may cause physiologic impairment at lower concentrations but for which a threshold limit has not yet been adopted.

Simple Asphyxiants--"Inert" Gases or Vapors.

A number of gases and vapors, when present in high concentrations in air, act primarily as simple asphyxiants without other significant physiologic effects. A TLV may not be recommended for each simple asphyxiant because the limiting factor is the available oxygen. The minimal oxygen content should be 18 percent by volume under normal atmospheric pressure (equivalent to a partial pressure, pO_2 , of 135 mm Hg). Atmospheres deficient in O_2 do not provide adequate warning and most simple asphyxiants are odorless. Some asphyxiants present an explosion hazard. Account should be taken of this factor in limiting the concentration of the asphyxiant.

These limits are intended for use in the field of industrial hygiene and should be interpreted and applied only by persons trained in this field. They are not intended for use, or for modification for use, (1) as a relative index of toxicity, by making a ratio of two limits, (2) in the evaluation or control of community air pollution or air pollution nuisances, (3) in estimating the toxic potential of continuous uninterrupted exposures, (4) as proof or disproof of an existing disease of physical condition, or (5) for adoption by countries whose working conditions differ from those in the U.S.

Physical Factors. It is recognized that such physical factors as heat, ultraviolet and ionizing radiation, humidity, abnormal pressure and the like may place added stress on the body so that the effects from exposure at a threshold limit may be altered. Most of these stresses act adversely to increase the toxic response of a substance. Although most threshold limits have built-in safety factors to guard against adverse effects of moderate deviations from normal environments, the safety factors of most substances are not of such a magnitude as to take care of gross deviations. For example, continuous work at temperatures above 90°F or over-time, extending the work-week more than 50%, might be considered gross deviations. In such instances judgement must be exercised in the proper adjustments of the threshold limit values.

These values are reviewed annually by the Committee on Threshold Limits for revision or additions, as further information becomes available.

RECOMMENDED VALUES (In Alphabetical Order)

Substance	ppm*	Mg/M ³ **
Acetaldehyde.....	200	360
Acetic acid.....	10	25
Acetic anhydride.....	5	20
Acetone.....	1,000	2,400
Acetonitrile.....	40	70
Acetylene tetrabromide.....	1	14
Acrolein.....	0.1	0.25
Acrylonitrile - Skin.....	20	45
Aldrin (1, 2, 3, 4, 10, 10-hexachloro-1, 4, 4a, 5, 8, 8a hexahydro-1, 4, 5, 8-di-methano-naphthalene) - Skin....	-	0.25
Allyl alcohol - Skin.....	2	5
Allyl chloride.....	1	3
C Allyl glycidyl ether (AGE).....	10	45
Allyl propyl disulfide.....	2	12
Ammonia.....	50	35
Ammonium sulfamate (Ammate).....	-	15
n-Amyl acetate.....	100	525
Amyl alcohol (isoamyl alcohol).....	100	360
Aniline - Skin.....	5	19
Antimony & compounds (as Sb).....	-	0.5
ANTU (alpha naphthyl thiourea).....	-	0.3
Arsenic & Compounds (as As).....	-	0.5
Arsine.....	0.05	0.2
Barium (soluble compounds).....	-	0.5
C Benzene (benzol) - Skin.....	25	80
Benzidine-Skin.....	-	A1
Benzyl chloride.....	1	5
Beryllium.....	-	0.002
Boron oxide.....	-	15
C Boron trifluoride.....	1	3
Bromine.....	0.1	0.7
Butadiene (1, 3-butadiene).....	1,000	2,200
2-Butanone (methyl ethyl ketone).....	200	590
2-Butoxy ethanol (Butyl Cellosolve) - Skin.....	50	240
†† Butyl acetate (n-butyl acetate).....	-	-
Butyl alcohol.....	100	300
tert. Butyl alcohol.....	100	300
C Butylamine-Skin.....	5	15
C tert. Butyl chromate (as CrO ₃) - Skin.....	-	0.1
n-Butyl glycidyl ether (BGE).....	50	270
Butyl mercaptan.....	10	35
p-tert. Butyltoluene.....	10	60
Cadmium oxide fume.....	-	0.1
Calcium arsenate.....	-	1
Calcium oxide.....	-	5

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Substance	ppm*	Mg/M ³ **	Substance	ppm*	Mg/M ³ **
Camphor	-	2	Dichlorodifluoromethane.....	1,000	4,950
Carbon dioxide.....	5,000	9,000	1,1-Dichloroethane.....	100	400
Carbon disulfide - Skin.....	20	60	1,2-Dichloroethane		
†† Carbon monoxide	-	-	(ethylene dichloride).....	50	200
Carbon tetrachloride - Skin	10	65	1,2-Dichloroethylene	200	790
Chlordane (1, 2, 4, 5, 6, 7, 8,			C Dichloroethyl ether-Skin.....	15	90
8-octachloro-3a, 4, 7, 7a			Dichloromonofluoromethane	1,000	4,200
tetrahydro-4, 7-methano-in-			C 1,1-Dichloro-1-nitroethane.....	10	60
dane) - Skin	-	0.5	Dichlorotetrafluoroethane.....	1,000	7,000
Chlorinated camphene,			Dieldrin (1,2,3,4,10,10-hexachloro		
(toxaphene) - Skin	-	0.5	-6,7-epoxy-1,4,4a,5,6,7,8,8a-		
Chlorinated diphenyl oxide	-	0.5	octahydro-1,4,5,8-dimethano-		
+ Chlorine	-	-	naphthalene) - Skin	-	0.25
Chlorine dioxide	0.1	0.3	Diethylamine	25	75
C Chlorine trifluoride	0.1	0.4	Difluorodibromomethane	100	860
C Chloroacetaldehyde.....	1	3	C Diglycidyl ether (DGE).....	0.5	2.8
Chlorobenzene			Diisobutyl ketone	50	290
(monochlorobenzene)	75	350	Dimethyl acetamide - Skin.....	10	35
Chlorobromomethane	200	1,050	Dimethylaniline (N-dimethyl-		
Chlorodiphenyl (42% chlorine) - Skin-		1	aniline) - Skin	5	25
Chlorodiphenyl (54% chlorine) - Skin-		0.5	† Dimethylformamide - Skin.....	-	-
C Chloroform (trichloromethane)....	50	240	1,1-Dimethylhydrazine - Skin	0.5	1
1-Chloro-1-nitropropane	20	100	Dimethylsulfate - Skin	1	5
Chloropicrin.....	0.1	0.7	Dinitrobenzene		
Chloroprene (2-chloro-1,			(all isomers) - Skin	-	1
3-butadiene) - Skin	25	90	Dinitro-o-cresol - Skin	-	0.2
Chromic acid and chromates			Dinitrotoluene - Skin.....	-	1.5
(as CrO ₃).....	-	0.1	Dioxane		
Cobalt.....	-	0.5	(diethylene dioxide) - Skin.....	100	360
Copper Fume	-	0.1	Dipropylene glycol methyl		
Dusts and Mists	-	1.0	ether - Skin.....	100	600
Crag (R) herbicide [sodium 2-(2,4-			Endrin (1,2,3,4,10,10-hexa-		
dichlorophenoxy) ethanol			chloro-6,7-epoxy-1,4,4a,5,6,7,8		
hydrogen sulfate]	-	15	8a-octahydro 1,4-endo-5,		
Cresol (all isomers) - Skin.....	5	22	8-dimethanonaphthalene) - Skin	-	0.1
Cyanide (as CN) - Skin.....	-	5	Epichlorohydrin-Skin.....	5	19
†† Cyclohexane.....	-	-	EPN (O-ethyl O-p-nitrophenyl		
Cyclohexanol.....	50	200	thionobenzenephosphonate)-Skin	-	0.5
Cyclohexanone.....	50	200	Ethanolamine	3	6
†† Cyclohexene.....	-	-	Ethyl acetate.....	400	1,400
2,4-D (2,4-dichlorophenoxy			Ethyl acrylate - Skin.....	25	100
-acetic acid).....	-	10	Ethyl alcohol (ethanol).....	1,000	1,900
DDT [2,2-bis (p-chlorophenyl) -					
1,1,1-trichloroethane] - Skin	-	1			
DDVP (O, O-Dimethyl-2,2-dichloro-					
vinyl phosphate) - Skin.....	-	1			
Decaborane - Skin	0.05	0.3			
Demeton (systox) (R) - Skin.....	1.0	-			
Diacetone alcohol (4-hydroxy-					
4-methyl-2-pentanone).....	50	240			
Diborane	0.1	0.1			
+ 1,2-Dibromoethane (ethylene					
dibromide) - Skin	-	-			
C o-Dichlorobenzene.....	50	300			
p-Dichlorobenzene.....	75	450			

* Parts of vapor or gas per million parts of air by volume

at 25°C and 760 mm Hg pressure.

** Approximate milligrams of particulate per cubic meter of

air.

A Numbers. See Appendix A

+1965 Addition or deletion of 'C'-see Tentative Values

†1964 Revision -see Tentative Values

††1965 Revision -see Tentative Values

BUMEDINST 6270.3D
15 February 1966

Substance	ppm*	Mg/M ³ **	Substance	ppm*	Mg/M ³ **
Camphor	-	2	Dichlorodifluoromethane.....	1,000	4,950
Carbon dioxide.....	5,000	9,000	1,1-Dichloroethane	100	400
Carbon disulfide - Skin.....	20	60	1,2-Dichloroethane (ethylene dichloride).....	50	200
†† Carbon monoxide.....	-	-	1,2-Dichloroethylene	200	790
Carbon tetrachloride - Skin	10	65	C Dichloroethyl ether-Skin.....	15	90
Chlordane (1, 2, 4, 5, 6, 7, 8, 8-octachloro-3a, 4, 7, 7a tetrahydro-4, 7-methano- dane) - Skin	-	0.5	Dichloromonofluoromethane.....	1,000	4,200
Chlorinated camphene, (toxaphene)-Skin	-	0.5	C 1,1-Dichloro-1-nitroethane.....	10	60
Chlorinated diphenyl oxide	-	0.5	Dichlorotetrafluoroethane.....	1,000	7,000
+ Chlorine	-	-	Dieldrin (1,2,3,4,10,10-hexachloro -6,7-epoxy-1,4,4a,5,6,7,8,8a- octahydro-1,4,5,8-dimethano- naphthalene) - Skin	-	0.25
Chlorine dioxide	0.1	0.3	Diethylamine	25	75
C Chlorine trifluoride	0.1	0.4	Diffuorodibromomethane	100	860
C Chloroacetaldehyde.....	1	3	C Diglycidyl ether (DGE).....	0.5	2.8
Chlorobenzene (monochlorobenzene)	75	350	Diisobutyl ketone	50	290
Chlorobromomethane	200	1,050	Dimethyl acetamide - Skin.....	10	35
Chlorodiphenyl (42% chlorine) - Skin.....	-	1	Dimethylaniline (N-dimethyl- aniline) - Skin	5	25
Chlorodiphenyl (54% chlorine) - Skin.....	-	0.5	† Dimethylformamide - Skin.....	-	-
C Chloroform (trichloromethane).....	50	240	1,1-Dimethylhydrazine - Skin	0.5	1
1-Chloro-1-nitropropane	20	100	Dimethylsulfate - Skin	1	5
Chloropicrin	0.1	0.7	Dinitrobenzene (all isomers) - Skin	-	1
Chloroprene (2-chloro-1, 3-butadiene) - Skin	25	90	Dinitro-o-cresol - Skin	-	0.2
Chromic acid and chromates (as CrO ₃)	-	0.1	Dinitrotoluene - Skin.....	-	1.5
Cobalt	-	0.5	Dioxane (diethylene dioxide) - Skin.....	100	360
Copper Fume	-	0.1	Dipropylene glycol methyl ether - Skin.....	100	600
Dusts and Mists.....	-	1.0	Endrin (1,2,3,4,10,10-hexa- chloro-6,7-epoxy-1,4,4a,5,6,7,8 8a-octahydro 1,4-endo-5, 8-dimethanonaphthalene) - Skin	-	0.1
Crag (R) herbicide [sodium 2-(2,4- dichlorophenoxy) ethanol hydrogen sulfate]	-	15	Epichlorohydrin-Skin.....	5	19
Cresol (all isomers) - Skin.....	5	22	EPN (O-ethyl O-p-nitrophenyl thionobenzenephosphonate)-Skin	-	0.5
Cyanide (as CN) - Skin.....	-	5	Ethanolamine	3	6
†† Cyclohexane.....	-	-	Ethyl acetate.....	400	1,400
Cyclohexanol	50	200	Ethyl acrylate - Skin.....	25	100
Cyclohexanone.....	50	200	Ethyl alcohol (ethanol).....	1,000	1,900
†† Cyclohexene.....	-	-			
2,4-D (2,4-dichlorophenoxy -acetic acid)	-	10			
DDT [2,2-bis (p-chlorophenyl) - 1,1,1-trichloroethane] - Skin	-	1			
DDVP (O, O-Dimethyl-2,2-dichloro- vinyl phosphate) - Skin.....	-	1			
Decaborane - Skin	0.05	0.3			
Demeton (systox) (R) - Skin.....	1.0	-			
Diacetone alcohol (4-hydroxy- 4-methyl-2-pentanone).....	50	240			
Diborane	0.1	0.1			
+ 1,2-Dibromoethane (ethylene dibromide) - Skin.....	-	-			
C o-Dichlorobenzene.....	50	300			
p-Dichlorobenzene.....	75	450			

* Parts of vapor or gas per million parts of air by volume
at 25 C and 760 mm Hg pressure
** Approximate milligrams of particulate per cubic meter of
air.
A Numbers. See Appendix A

+1965 Addition or deletion of 'C'-see Tentative Values
†1964 Revision -see Tentative Values
††1965 Revision -see Tentative Values

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Enclosure (1)

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BUMEDINST 6270.3D
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Substance	ppm*	Mg/M ³ **	Substance	ppm*	Mg/M ³ **
†† Ethylamine.....	—	—	Lindane (hexachlorocyclohexane, gamma isomer) - Skin	—	0.5
† C Ethylbenzene.....	—	—	Lithium hydride.....	—	0.025
Ethyl bromide.....	200	890	Magnesium oxide fume.....	—	15
Ethyl chloride.....	1,000	2,600	Malathion (O, O-dimethyl dithiophosphate of diethyl mercaptosuccinate) - Skin	—	15
Ethyl ether.....	400	1,200	C Manganese.....	—	5
Ethyl formate.....	100	300	Mercury - Skin	—	0.1
† C Ethyl mercaptan.....	—	—	Mercury (organic compounds) - Skin	—	0.01
Ethyl silicate.....	100	850	Mesityl oxide.....	25	100
Ethylene chlorohydrin - Skin.....	5	16	Methoxychlor (2, 2-di-p- methoxy-phenyl-1, 1, 1- trichloroethane).....	—	15
Ethylenediamine.....	10	25	Methyl acetate.....	200	610
C Ethylene glycol dinitrate - Skin	0.2	1.2	Methyl acetylene (propyne).....	1,000	1,650
†† Ethylene imine - Skin.....	—	—	Methyl acrylate - Skin	10	35
Ethylene oxide.....	50	90	Methylal (dimethoxymethane).....	1,000	3,100
2-Ethoxyethanol - Skin.....	200	740	Methyl alcohol (methanol).....	200	260
2-Ethoxyethylacetate (Cellosolve acetate) - Skin	100	540	C Methyl bromide - Skin	20	80
Ferbam (ferric dimethyl dithiocarbamate).....	—	15	Methyl cellosolve (2-methoxy- ethanol) - Skin.....	25	80
Ferrovandium dust.....	—	1	Methyl cellosolve acetate (ethylene glycol monomethyl ether acetate) - Skin.....	25	120
Fluoride (as F).....	—	2.5	C Methyl chloride.....	100	210
Fluorine.....	0.1	0.2	Methyl chloroform (1, 1, 1-tri- chloroethane).....	350	1,900
Fluorotrichloromethane.....	1,000	5,500	Methylcyclohexane.....	500	2,000
C Formaldehyde.....	5	6	Methylcyclohexanol.....	100	470
Furfural - Skin.....	5	20	o-Methylcyclohexanone - Skin	100	460
Furfuryl alcohol.....	50	200	Methyl formate.....	100	250
Gasoline.....	500	2,000	Methyl isobutyl carbinol (methyl amyl alcohol) - Skin ..	25	100
Glycidol (2, 3-Epoxy-1- propanol).....	50	150	† Methyl mercaptan.....	—	—
Hamium.....	—	0.5	Methyl methacrylate.....	100	410
Heptachlor (1, 4, 5, 6, 7, 8, 8a-heptachloro-3a, 4, 7, 7a-tetrahydro-4, 7- methanoindane) - Skin	—	0.5	C α Methyl styrene.....	100	480
Heptane (n-heptane).....	500	2,000	C Methylene bis phenyl isocyanate (MDI).....	0.02	0.2
Hexane (n-hexane).....	500	1,800	Methylene chloride (dichloromethane).....	500	1,750
Hexanone (methyl butyl ketone).....	100	410	Molybdenum (soluble compounds).....	—	5
sec-Hexyl acetate.....	50	295	(insoluble compounds).....	—	15
Hexone (methyl isobutyl ketone).....	100	410	Monomethyl aniline - Skin.....	2	9
Hydrazine - Skin	1	1.3	Naphtha (coal tar).....	200	800
Hydrogen bromide.....	3	10	Naphtha (petroleum).....	500	2,000
C Hydrogen chloride.....	5	7	Naphthalene.....	10	50
Hydrogen cyanide - Skin	10	11	β-Naphthylamine.....	—	A2
Hydrogen fluoride.....	3	2	Nickel carbonyl.....	0.001	0.007
Hydrogen peroxide, 90%.....	1	1.4	Nicotine - Skin.....	—	0.5
Hydrogen selenide.....	0.05	0.2	† Nitric acid.....	—	—
† Hydrogen sulfide.....	—	—	p-Nitroaniline - Skin	1	6
Hydroquinone.....	—	2	Nitrobenzene - Skin.....	1	5
C Iodine.....	0.1	1			
†† Iron oxide fume.....	—	—			
Isophorone.....	25	140			
Isopropylamine.....	5	12			
Isopropyl glycidyl ether (IGE)....	50	240			
Ketene.....	0.5	0.9			
Lead.....	—	0.2			
Lead arsenate.....	—	0.15			

Enclosure (1)

PRODUCED
JM - 83

MT-PWHD 012176

Substance	ppm*	Mg/M ³ **	Substance	ppm*	Mg/M ³ **
Nitroethane.....	100	310	Quinone.....	0.1	0.4
C Nitrogen dioxide	5	9	Rotenone (commercial).....	—	5
C Nitroglycerin - + EGDN - Skin... ..	0.2	2	† Selenium compounds (as Se)	—	—
Nitromethane	100	250	Sodium fluoroacetate (1080)		
1-Nitropropane	25	90	- Skin.....	—	0.05
2-Nitropropane	25	90	Sodium hydroxide.....	—	2
N - Nitrosodimethylamine (Di-			Stibine.....	0.1	0.5
methylnitrosamine) - Skin	A3	—	Stoddard solvent	500	2,900
Nitrotoluene - Skin	5	30	Strychnine.....	—	0.15
Octane.....	500	2,350	C Styrene monomer		
Oil mist (mineral)	—	5	(phenylethylene)	100	420
Osmium tetroxide.....	—	0.002	Sulfur dioxide.....	5	13
Ozone	0.1	0.2	Sulfur hexafluoride	1,000	6,000
Parathion (O, O-diethyl O-p-			Sulfuric acid.....	—	1
nitrophenyl thiophosphate)			Sulfur monochloride.....	1	6
- Skin.....	—	0.1	Sulfur pentafluoride.....	0.025	0.25
Pentaborane.....	0.005	0.01	Sulfuryl fluoride.....	5	20
Pentachloronaphthalene - Skin	—	0.5	2, 4, 5T (2, 4, 5		
Pentachlorophenol - Skin.....	—	0.5	trichlorophenoxyacetic acid)-	—	10
Pentane	1,000	2,950	Tantalum.....	—	5
Pentanone (methyl propyl			TEDP (tetraethyl		
ketone)	200	700	dithionopyrophosphate)-Skin..	—	0.2
Perchloroethylene (tetra-			Teflon (R) decomposition		
chloroethylene)	100	670	products	—	A4
Perchloromethyl mercaptan	0.1	0.8	TEPP (tetraethyl pyro-		
Perchloryl fluoride	3	13.5	phosphate) - Skin.....	—	0.05
Phenol - Skin	5	19	Tellurium	—	0.1
Phenyl glycidyl ether (PGE).....	50	310	1, 1, 2, 2-Tetrachloroethane		
Phenylhydrazine - Skin.....	5	22	- Skin.....	5	35
Phosdrin (Mevinphos) (R)			1, 1, 2, 2-Tetrachloro-		
(2 - carbomethoxy - 1 -			1, 2-difluoroethane.....	500	4,170
methyl vinyl dimethyl			Tetraethyl lead		
phosphate) - Skin.....	—	0.1	(as Pb) - Skin.....	—	0.075
† Phosgene (carbonyl chloride)	—	—	Tetrahydrofuran.....	200	590
Phosphine.....	0.3	0.4	Tetranitromethane.....	1	8
Phosphoric acid.....	—	1	Tetyl (2, 4, 6-trinitrophenyl-		
Phosphorus (yellow)	—	0.1	methylnitramine) - Skin.....	—	1.5
Phosphorus pentachloride	—	1	Thallium (soluble compounds)		
Phosphorus pentasulfide	—	1	- Skin.....	—	0.1
Phosphorus trichloride.....	0.5	3	Thiram (tetramethyl thiuram		
Picric acid - Skin	—	0.1	disulfide)	—	5
Platinum (Soluble Salts).....	—	0.002	Tin (inorganic cmpds).....	—	2
Polytetrafluoro - ethylene			(organic cmpds).....	—	0.1
decomposition products	—	A4	Titanium dioxide.....	—	15
β Propiolactone.....	—	A5	Toluene (toluol)	200	750
n-Propyl acetate	200	840			
Propyl alcohol (isopropyl					
alcohol).....	400	980			
Propyl ether (isopropyl ether)....	500	2,100			
n-Propyl nitrate	25	110			
Propylene dichloride (1, 2-					
dichloropropane)	75	350			
†† Propylene imine - Skin.....	—	—			
Propylene oxide.....	100	240			
Pyrethrum.....	—	5			
Pyridine	5	15			

* Parts of vapor or gas per million parts of air by volume
at 25°C and 760 mm. Hg pressure.

** Approximate milligrams of particulate per cubic meter of
air.

A Numbers, See Appendix A

†1965 Addition or deletion of 'C'-see Tentative Values

††1964 Revision - see Tentative Values

††1965 Revision - see Tentative Values

PRODUCED

JM 83

Enclosure (1) ⑦

BUMEDINST 6270.3D
15 February 1966

Substance	ppm*	Mg/M ³ **
o-Toluidine - Skin	5	22
C Toluene-2, 4-diisocyanate.....	0.02	0.14
Trichloroethylene	100	520
Trichloronaphthalene - Skin	-	5
1, 2, 3-Trichloropropane.....	50	300
1, 1, 2-Trichloro 1, 2, 2-trifluoroethane.....	1,000	7,600
Triethylamine.....	25	100
Trifluoromonobromomethane.....	1,000	6,100
Trinitrotoluene - Skin.....	-	1.5
Triorthocresyl phosphate.....	-	0.1
Triphenyl phosphate.....	-	3
Turpentine	100	560
Uranium (soluble compounds)	-	0.05
(insoluble compounds)	-	0.25
C Vanadium (V ≥ 0.5 dust).....	-	0.5
(V ≥ 0.5 fume).....	-	0.1
C Vinyl chloride (chloroethylene)..	500	1,300
Vinyl toluene	100	480
Warfarin (3-[α-acetonylbenzyl]-4-hydroxycoumarin).....	-	0.1
† Xylene (xylol)	-	-
Xylidine - Skin.....	5	25
† Yttrium	-	-
Zinc oxide fume.....	-	5
Zirconium compounds (as Zr)	-	5

RESPIRABLE DUSTS EVALUATED BY COUNT

Substance	m.p.p.c.f. *
SILICA	
Crystalline	
Quartz, Threshold Limit Calculated from the formula	250 **
Cristobalite " " " "	250 ± 5
Amorphous, including natural diatomaceous earth	20
SILICATES (less than 1% crystalline silica)	
Asbestos	5
Mica	20
Soapstone	20
Talc	20
Portland Cement	50
Graphite	15
"Inert" or Nuisance Particulates	50 (or 15 mg/m ³ whichever is the smaller)

Conversion factors
mppcf x 35.3 = million particles per cubic meter
= particles per c.c.

* Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques.
** The percentage of crystalline silica in the formula is the amount determined from air-borne samples, except in those instances in which other methods have been shown to be applicable.

Radioactivity: For permissible concentrations of radio-isotopes in air, see U. S. Department of Commerce, National Bureau of Standards, Handbook 69, "Maximum Permissible Body Burdens and Maximum Permissible Concentrations of Radioisotopes in Air and in Water for Occupational Exposure," June 5, 1959. Also, see U. S. Department of Commerce, National Bureau of Standards, Handbook 59, "Permissible Dose from External Sources of Ionizing Radiation," September 24, 1954, and addendum of April 15, 1958.

* Parts of vapor or gas per million parts of air by volume at 25°C and 750 mm. Hg pressure.

** Approximate milligrams of particulate per cubic meter of air.

A Numbers. See Appendix A

TENTATIVE VALUES

The values below will remain in the Tentative List for at least two years to permit presentation of further scientific evidence to indicate their appropriateness for transfer to the Recommended List.

Substance	ppm*	Mg/M ³ **
††2-Aminopyridine.....	0.5	2
††sec-Amyl acetate.....	125	650
Anisidine (o, p-isomers) - Skin ..	-	0.5
††Azinphos-methyl (Guthion)-Skin ..	-	0.2
Benzoyl peroxide.....	-	5
††Bromoform - Skin.....	5	50
††n-Butyl acetate	150	710

BUMEDINST 6270.3D
15 February 1966

Substance	ppm*	Mg/M ³ **	Substance	ppm*	Mg/M ³ **
+sec-Butyl acetate	200	950	Methyl acetylene-propadiene mixture, (MAPP)	1000	1800
+tert-Butyl acetate	200	950	+Methylamine	10	12
+Cadmium (metal dust and soluble salts)	-	0.2	+Methyl n-amyl ketone (2-Heptanone)	100	465
Carbaryl (Sevin) (R)	-	5	-Methyl iodide - Skin	5	28
+Carbon black	-	3.5	+Methyl isocyanate - Skin	0.02	0.05
+Carbon monoxide	50	55	Methyl mercaptan	10	20
+o-Chlorobenzylidene malononitrile (OCBM)	.05	0.4	Methyl methacrylate	100	410
+C Chlorine	1	3	C Methylene bis phenylisocyanate	0.02	0.2
+Coal tar pitch volatiles (benzene soluble fraction) (anthracene, BzP, phenanthrene, acridine chrysene, pyrene)	-	0.2	C Monomethyl hydrazine - Skin	0.2	0.35
Cotton dust (raw)	-	1	Morpholine - Skin	20	70
+Crotonaldehyde	2	6	Naphthalene	10	50
+Cumene - Skin	50	245	Nickel, metal and soluble compounds	-	1
+Cyclohexane	300	1050	Nitric acid	2	5
+Cyclohexene	300	1015	p-Nitrochlorobenzene - Skin	-	1
Cyclopentadiene	75	200	Nitrogen trifluoride	10	29
+Diazomethane	0.2	0.4	+Oxalic acid	-	1
+C 1, 2-Dibromoethane (ethylene dibromide) - Skin	25	190	Oxygen difluoride	0.05	0.1
+Dibutylphosphate	2	10	p-Phenylene diamine - Skin	-	0.1
+Dibutylphthalate	-	10	+Phenyl ether (vapor)	1	7
1, 3-Dichloro-5, 5-dimethyl hydantoin	-	0.2	+Phenyl ether-Biphenyl mixture (vapor)	1	7
-Diethylamino ethanol - Skin	10	50	+Phosgene	0.1	0.4
Dimethyl 1, 2-dibromo-2, 2-dichloroethyl phosphate, (Dibrom) (R)	-	3	Phthalic anhydride	2	12
Dimethylamine	10	18	+Pival (2-Pivalyl-1,3-indandione)	-	0.1
Dimethylformamide - Skin	10	30	Propane	1,000	1,800
Di sec. octyl phthalate (Di-2-ethylhexyl-phthalate)	-	5	+Propylene imine - Skin	2	5
+Ethyl amine	10	18	+Rhodium, Metal fume and dusts soluble salts	-	0.1
+Ethyl sec amyl ketone (5-Methyl-3-heptanone)	25	130	Selenium compounds	-	0.2
+Ethyl benzene	100	435	+Selenium hexafluoride	0.05	0.4
+Ethyl butyl ketone (3-Heptanone)	50	230	Silver, metal and soluble compounds	-	0.01
+Ethylene imine - Skin	0.5	1	+Tellurium hexafluoride	0.02	0.2
+C Ethylmercaptan	10	25	1, 1, 1, 2-Tetrachloro-2, 2-difluoroethane	500	4170
+N-Ethylmorpholine - Skin	20	94	+Tetramethyl lead (TML) (as lead) - Skin	-	0.075
+Fibrous glass	-	5	+Tetramethyl succinonitrile - Skin	0.5	3
+Formic acid	5	9	+Tremolite	5mppcf	-
Hexachloroethane - Skin	1	10	+1, 1, 2-Trichloroethane - Skin	10	45
+sec-Hexyl acetate	50	300	-Xylene	100	435
Hydrogen sulfide	10	15	Yttrium	-	1
-Iron oxide fume	-	10			
+Isoamyl acetate	100	525			
-Isobutyl acetate	150	700			
-Isopropyl acetate	250	950			
L. P. G. (Liquid petroleum gas)	1000	1600			
Maleic anhydride	-	8			

* Parts of vapor or gas per million parts of air by volume at 25°C and 760 mm Hg pressure
** Approximate milligrams of particulate per cubic meter of air.

+ 1965 Revision
- 1965 Additions

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JM - 83

Enclosure (1)

MT DWLD 040470

BLMEDINST 6270.3D
15 February 1966

Appendix A

A¹ Benzidine. Because of high incidence of bladder tumors in man, any exposure, including skin, is extremely hazardous.

A² β -Naphthylamine. Because of the extremely high incidence of bladder tumors in workers handling this compound, and the inability to control exposures, β -naphthylamine has been prohibited from manufacture, use and other activities that involve human contact by the State of Pennsylvania.

A³ N-Nitrosodimethylamine. Because of extremely high toxicity and presumed carcinogenic potential of this compound, contact by any route should not be permitted.

A⁴ Polytetrafluoroethylene* decomposition products.

At least one identified component of the decomposition products is extremely toxic, but in the absence of more complete toxicity information and suitable analytic methods, a definite Threshold Limit Value is not recommended at this time; but air concentrations should be minimal.

A⁵ β -Propiolactone. Because of high acute toxicity and demonstrated skin tumor production in animals, contact by any route should be avoided.

* Trade Names: Algoflon, Fluon, Halon, Teflon, Tetran

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JM - 83

(10)

PLAINTIFF
EXHIBIT
TP 67
C/A 78-6486A

DEPARTMENT OF THE NAVY
SAFETY PRECAUTIONS FOR SHORE ACTIVITIES

NAVSO P-2155

APRIL 1965

Reviewed and Approved:

R. L. Moore, Jr.

R. L. MOORE, JR.
Chief of Industrial Relations

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C., 20540 - Price \$2.75

PRODUCED

JUL - 83

Repts B for Ad
12-12-80
Wit: S. Manning

Repts L for Ad 9
2-8-80
Wit: Daigle 11

(70)

MT-PWHD-013181

Hazardous Materials

hazard in the cleaning of leaded gas storage tanks (see 2020.3).

i. Mercury. Absorption of comparatively small amounts of mercury or its compounds by ingestion or inhalation can result in acute poisoning (kidney damage) which may be fatal.

Chronic poisoning resulting from long exposure is usually manifested in damage to the nervous system or by mental disturbances. One of the principal hazards in Navy industrial activities with respect to mercury involved in the filling of mercury manometers commonly used in measuring pressures of fluid flow in various equipments and processes. The careless handling of mercury in this operation many times results in emulsions of spilled mercury on table

tops, floors, etc. such that hazardous mercury vapor concentrations may develop if the space is confined and ventilation is inadequate. See article 1795.2a for appropriate precautions and decontamination procedures.

6. Zinc. Although zinc fumes are not highly toxic and do not appear to produce chronic symptoms or cumulative effects, the common occurrences of the annoying and sometimes disabling transient effects is worthy of mention. The welding or torch cutting of galvanized steels and casting of brass and bronze occasionally result in the occurrence of metal-fume fever (fever and chills) and any such operations should be performed with adequate ventilation or suitable respiratory protection.

DUSTS

3. MINERAL DUSTS

Certain mineral dusts are pneumoconiosis (pathological lung condition produced by mineral or metallic dust inhalation) produced in the most prevalent and insidious forms of silicosis and asbestosis caused by prolonged inhalation of dusts (or mists) containing silica and asbestos.

1. Silicosis. Silicosis has long been recognized as an occupational disease in such activities as mining and quarrying. The damage done is permanent and progressive with continued exposure. In its more advanced stages, it is evidenced by shortness of breath, decreased chest expansion, lessened ability for work, and increased susceptibility to tuberculosis and other lung diseases. Therefore, any operations which create appreciable quantities of silica (quartz, principally) such as in sand blasting should be well ventilated and, if necessary, personnel should wear appropriate respiratory protection.

2. Asbestosis. The effects of asbestosis are similar to and just as disabling as those of silicosis. There is evidence, however, that the handling of asbestos products in the Navy are not so well controlled, if the prevalence of cases of asbestosis is any indication. Exposure to asbestos dust is usually encountered in the installation, repair, and removal of insulating pipe covering used principally aboard ship. The following precautions should be taken in any dust making operations involving asbestos products:

- Provide permanent general ventilation in areas where dust producing operations are usually performed.
- Install exhaust hoods over saws and other dust making machine tools.
- Require workers to wear dust respirators where dusty operations cannot be adequately ventilated.
- Use industrial vacuum cleaners in lieu of dry sweeping of floors and other surfaces.

RADIOACTIVE MATERIALS

9. GENERAL

The precautions applicable to the use and storage of hazardous radioactive materials

are adequately covered by manuals and instructions issued by the bureaus and offices of the Navy Department. For reference

20-22

PRODUCED
JM - 83

9A

(12)

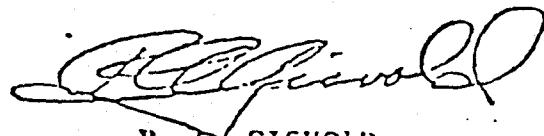
DEF
CA 78-148-N

PLAINTIFF'S
EXHIBIT
TP-68
CA 78-148-N

DEPARTMENT OF THE NAVY
SAFETY PRECAUTIONS FOR SHORE ACTIVITIES

NAVSO P-2155
APRIL 1965

Reviewed and Approved: 15 May 1965



P. M. GISVOLD
Acting Director
Civilian Manpower Manager

*Repts C for all
12-12-80
Wit. S. Manning*

This manual may be reviewed on request. Write:

L. P. HACKLER, Safety Office
Norfolk Naval Shipyard
Portsmouth, Va. 23702

PRODUCED
JM - 83

3-2-15
Enclosure

(13)

Hazardous Materials

health hazard in the cleaning of leaded gasoline storage tanks (see 2020.3).

5. Mercury. Absorption of comparatively large amounts of mercury or its compounds by ingestion or inhalation can result in acute poisoning (kidney damage) which may be fatal. Chronic poisoning resulting from long exposure is usually manifested in damage to the nervous system or by mental disturbances. One of the principal hazards in Navy industrial activities with respect to mercury is involved in the filling of mercury manometers commonly used in measuring pressures and fluid flow in various equipments and processes. The careless handling of mercury in this operation many times results in accumulations of spilled mercury on table

tops, floors, etc., such that hazardous mercury vapor concentrations may develop if the space is confined and ventilation is inadequate. See article 1708.2a for appropriate precautions and decontamination procedures.

6. Zinc. Although zinc fumes are not highly toxic and do not appear to produce chronic symptoms or cumulative effects, common occurrences of the annoying and sometimes disabling transient effects is worthy of mention. The welding or torching of galvanized steels and casting of lead and bronze occasionally result in the occurrence of metal-fume fever (fever and chills) and any such operations should be performed with adequate ventilation or suitable respiratory protection.

DUSTS

2058. MINERAL DUSTS

Certain mineral dusts are pneumoconiosis (a pathological lung condition produced by mineral or metallic dust inhalation) producing. The most prevalent and insidious forms are silicosis and asbestosis caused by prolonged inhalation of dusts (or mists) containing silica and asbestos.

1. Silicosis. Silicosis has long been recognized as an occupational disease in such industries as mining and quarrying. The damage done is permanent and progressive with continued exposure. In its more advanced stages, it is evidenced by shortness of breath, decreased chest expansion, lessened capacity for work, and increased susceptibility to tuberculosis and other lung diseases. Therefore, any operations which create appreciable quantities of silica (quartz, principally) such as in sand blasting should be well ventilated and, if necessary, personnel should wear appropriate respiratory protection.

2. Asbestosis. The effects of asbestosis are similar to and just as disabling as those of silicosis. There is evidence, however, that the handling of asbestos products in the Navy are not so well controlled, if the prevalence of cases of asbestosis is any indication. Exposure to asbestos dust is usually encountered in the installation, repair, and removal of insulating pipe covering used principally aboard ship. The following precautions should be taken in any dust making operations involving asbestos products:

- a. Provide permanent general ventilation in areas where dust producing operations are usually performed.
- b. Install exhaust hoods over saws and other dust making machine tools.
- c. Require workers to wear dust respirators where dusty operations cannot be adequately ventilated.
- d. Use industrial vacuum cleaners in lieu of dry sweeping of floors and other surfaces.

RADIOACTIVE MATERIALS

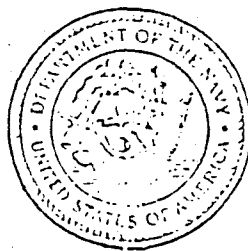
2059. GENERAL

The precautions applicable to the use and storage of hazardous radioactive materials

are adequately covered by manuals and instructions issued by the bureaus and offices of the Navy Department. For reference purposes

SAFETY PRECAUTIONS

FOR SHORE ACTIVITIES



NAVSO P-2455

APRIL 1965

OFFICE OF
CIVILIAN MANPOWER MANAGEMENT
DEPARTMENT OF THE NAVY
WASHINGTON, D. C. 20390

PRODUCED
JM - 83

Repts R for Adl
12-17-80

Wit: S. Manning

CH-1
JUNE 1967

96

(72)

(15)

Safety Precautions for Shore Activities

are lead alloy pouring, spraying and sanding of lead pigmented paints, and flame cutting painted steel. Tetraethyl lead, being volatile at ordinary temperatures, poses a serious health hazard in the cleaning of leaded gasoline storage tanks (see 2020.3).

5. Mercury. Absorption of comparatively large amounts of mercury or its compounds by ingestion or inhalation can result in acute poisoning (kidney damage) which may be fatal. Chronic poisoning resulting from long exposure is usually manifested in damage to the nervous system or by mental disturbances. One of the principal hazards in Navy industrial activities with respect to mercury is involved in the filling of mercury manometers commonly used in measuring pressures and fluid flow in various equipments and processes. The careless handling of mer-

cury in this operation many times results in accumulations of spilled mercury on table tops, floors, etc., such that hazardous mercury vapor concentrations may develop if the space is confined and ventilation is inadequate. See article 1708.2a for appropriate precautions and decontamination procedures.

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DUSTS

2053. MINERAL DUSTS

Certain mineral dusts are pneumoconiosis (a pathological lung condition produced by mineral or metallic dust inhalation) producing. The most prevalent and insidious forms are silicosis and asbestosis caused by prolonged inhalation of dusts (or mists) containing silica and asbestos.

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- Install exhaust hoods over saws and other dust making machine tools.
- Require workers to wear dust respirators where dusty operations cannot be adequately ventilated.
- Use industrial vacuum cleaners in lieu of dry sweeping of floors and other surfaces.

RADIOACTIVE MATERIALS

2059. GENERAL

The precautions applicable to the use and storage of hazardous radioactive materials

are adequately covered by manuals and instructions issued by the commands, bureaus, and offices of the Navy Department. For reference:

Change 1
June 1967

20-22

PRODUCED
JM - 83

MT-PWHD-013186

MEMORANDUM

Code 725
30 June 1970

To: Commander Jose C. Smith, MC, USN

From: Sheldon H. Manning, Industrial Hygienist, LBNSY

Subject: The Industrial Hygiene Program at Long Beach Naval Shipyard
Past and Present with Proposals for Improvement

- Enclosures: (1) Department of the Navy. Position Classification Standard for Managers of Industrial Hygiene Programs GS-690.
- (2) Excerpt from Federal Personnel Manual Part 1, Chapter 335, Subchapter 4, Paragraph 3-b.
- (3) Position or Job Description for Industrial Hygienists at Long Beach Naval Shipyard GS 11 and 12 grade.

A. Background: The Industrial Hygiene program at the Long Beach Naval Shipyard since the second opening in 1951 has been nonexistent, or marked by weakness whenever the billet was filled. The program has always been run by one man with no secretarial help, often with little or no equipment, status, or chance for advancement. The last three Medical Officers covering a span of more than fifteen years were alike in their lack of understanding of what a Industrial Hygiene Program should be. They were alike in their indifference to the program and followed a policy of giving the program little encouragement or backing.

Dan Bessmer was the first man to fill the billet when he came aboard soon after WW II, but left when the Shipyard shut down, and went to Puget Sound NSY where he has developed one of the most effective and most respected Industrial Hygiene programs in the Navy. His total staff is twelve with a quarterly budget of about \$110,000.00 dollars. The laboratory that he set up here went to Pt. Magu. The shutdown was a great tragedy for the Shipyard resulting in the loss of many of its most qualified employees.

Mr. J.R. Sheehan filled the billet for a time during the early fifties, after the Shipyard reopened. He was reported to be ineffective, unpopular, and eccentric. He got nowhere and left to go into a different field. He left behind a feeling of disrespect toward Industrial Hygienists and nothing else.

The billet was not filled for some time, but in 1958 Bill Marr was recruited from the Naval Gun Factory in Washington, D.C. and served until the end of 1964. His program lacked support, with little equipment and no secretarial help. He did manage to alert supervisors and PC&I employees to the hazards associated with the inhalation of asbestos dust. Control measures were put in effect that for years were the most effective in the Navy. He completed an extensive survey on asbestos and wrote a paper on the subject. He was one of the first men in the field to recognize the seriousness of the hazard. The lack of appreciation of his contribution in this field by management can be judged by the fact that when a great conference of experts from all over the world reported their findings on the effects of asbestos at the American Academy of Science in NYC in 1964, the Safety Director attended and the Shipyard expert stayed home.

EXHIBIT
FOR IDENTIFICATION
JULIAN R. SCHWAB, CES, NP
7/5/79 (SM 144)

792

PRODUCED
JM - 83

Repts E for Jd
12-12-80
Lit: S. Manning

MT-PWHD-013187

Code 725
30 June 1970

Subject: The Industrial Hygiene Program at Long Beach Naval Shipyard
Past and Present with Proposals for Improvement

Background (continued):

Bill Marr left the Shipyard soon after this and transferred to the Canal Zone Government where at long last he was promoted to the GS-12 rating in the Federal Civil Service. Before he left for Panama, Mr. Marr gave an interview to a reporter on the hazards of asbestos exposure which reflected adversely on the Shipyard. This bad publicity incurred the wrath of the Shipyard Commander and soon afterward the Industrial Hygiene billet was abolished. After a lapse of over two years the billet was re-instated. The incumbent Industrial Hygienist was selected off the Federal Register compiled by the Interagency Board of Civil Service Examiners, in Washington, D.C. where he was listed as a qualified Industrial Hygienist grade GS-11. As a result of a routine submission to the Board of Examiners of a form 57 for updating of qualifications, the incumbent was notified about 15 February 1967 that he qualified for grade GS-12 and was placed on the Federal Register as such. The billet was at the GS-12 level at the Shipyard. When the Shipyard Employment Superintendent was informed about the above developments he indicated that the papers were in process for bringing the incumbent aboard as a GS-11 and that he would be elevated to the next grade later - much later it appears.

The present Industrial Hygienist reported aboard 6 March 1967 to be confronted by an empty desk, filing cabinet, book case, and storage space. There were no collection of back issues of technical journals, no collection of reference books, and nothing in the files to indicate past Industrial Hygiene activity. The Dispensary had passed through the traumatic experience of going from a military to a civilian basis and everything was taken or thrown out. After all the billet was abolished. Some equipment was in storage at the Quality Control Laboratory, but proved to be broken, obsolete or otherwise of no value to the program, and later most of it was returned. Reference books and subscriptions to journals were acquired through the library, and after some delay, the most necessary equipment was slowly acquired over a period of two years.

No secretarial help was supplied on a regular basis and none would be needed. It was the Medical Officers' wish that all reports be delivered verbally. All actions were to be cleared by him.

The most valuable service that an Industrial Hygiene Program can render is the recognition, evaluation and control of health hazards at the work site. This to be reported to cognizant supervision in a clear concise written report that may be of a technical nature with enclosed data. The written report allows the recipient to refer to it later and offers less chance for misunderstanding. The program was effectively suppressed by this and other tactics. It was the feeling of the incumbent that the Medical Officer did not really want an Industrial Hygienist except for window dressing, had no respect of interest in the program and would summarily dismiss the Industrial Hygienist at the slightest provocation.

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Background (continued):

During the early part of the incumbent's tenure because he had nothing much to do, was assigned the trivial tasks of fitting ear plugs and running urine porphyrin screening tests. When the Medical Officers' Secretary died, the preparation of all the Dispensary Quarterly Reports was assigned to the Industrial Hygienist. During the periods of time that the Shipyard was without an Industrial Hygienist and since the Medical Officers showed no interest, an attempt had to be made by someone to solve problems of an Industrial Hygiene nature. This duty was in most cases assigned to the Safety Department or the Q&PA Laboratory. Since these people could and did write instructions all of the Industrial Hygiene local instructions as well as Medical Department instructions, are in the Safety or Radiography Manual or in Production Department instructions. Medical Officers have some aversion to writing because the incumbent has not found any Long Beach Naval Shipyard Instructions originating from the Medical Department. This tends to weaken the Medical Department's effectiveness.

- B. Recent Status: During the past year, survey reports have been typed for the Industrial Hygienist by the Medical Officer's Secretary and go out under his signature. This has brought a big improvement in the program. At last there is a tangible product from the program.

People still write things that affect the program without the courtesy of consulting the Industrial Hygienist. All kinds of pseudo experts and laymen expound and act on Industrial Hygiene technical matters. All occupational medical cases are not referred to this office promptly, and the incumbent is still a GS-11. Probably the only manager of an I.H. program in the Navy at this level.

The present program consists of duties that have been specifically assigned; work carried out in response to requests and complaints; and work started on the incumbent's initiative.

Examples of assigned duties are: Compiling data and writing the entire Quarterly Report; fitting and dispensing ear defenders; typing photodosimetry records and reports; running urine porphyrin screening tests; quarterly testing the yard compressed air for quality.

Examples of work initiated by requests or complaints have been picked from the log from 1 April to 1 September 1969. Three large surveys conducted during this period are: The asbestos dust survey involving collecting over seventy-five samples and counting them. The Shipyard noise survey and the Naval Supply Center survey.

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Recent Status (continued):

Following are some smaller activities performed during the above time period: Made radiation level check near hull of USS LONG BEACH in DD #1. Took fume samples in foundry several times. Determined chronic acid levels in plating shop. Took ventilation measurements in buffing room. Investigated Vibra Clean hand cleaner situation and attended meeting called to rectify dermatitis problem. Checked CO monitors in compressor rooms several times. Checked sewer pump room located 90' below ground level for air contamination. Measured ventilation rate in the plating room, paint booths at the melting pots, and at the heating and stripping tanks. Investigated beryllium hazard in electronics repair shop. Responded to numerous requests for noise surveys. Measured air lead levels at babbit and lead pots. Investigated the use of asbestos dust for hot topping in foundry. Made determinations at site of organic vapor inhalation case. Determined caustic mist concentrations at caustic tanks. Determined hydrogen sulphide levels aboard BROOK. Took heat measurements in tanks. Determined organic vapor levels in NSC office after pest control sprayed insecticide. Conducted survey of paint vapor exposures in and around tanks USS KLONDIKE.

In addition to the above, telephone inquiries were answered concerning Industrial Hygiene matters. Patients in the category of occupational medical cases were interviewed. The weekly report was typed for the Medical Officer. Action on Beneficial Suggestions were carried out when they were routed to this desk. Had numerous conferences with supervision at various levels on I. H. matters. Typed up correspondence. Helped conduct various VIP's around the Shipyard. Attended Industrial Hygiene and Safety Conferences and meetings. Filed my own papers. Read numerous professional and technical journals, bulletins and instructions in an attempt to keep current in the field. Often the literature had to be researched to come up with the answer to problems.

Inspections are carried out in work areas as time permits on the Industrial Hygienist's initiative.

C. Recommendations:

1. Provide secretarial help for the Industrial Hygiene Program on a regular basis. If the program is to be expanded to include those services that it should. See enclosure (1) - pages 3,4,5,6, this help should be on a full time basis.

Justification: The Industrial Hygienist now types by the hunt and peck method, correspondence, records and reports and finds that the better he does his job, the more this load increases. At the cost to the Government of over eight dollars an hour, with benefits, it is hardly good economy to have an Industrial Hygienist typing and filing when he could be free to practice the activities he is trained for and qualified in.

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C. Recommendations (continued):

Justification (continued):

The incumbent knows of no other Navy facility that hires an I. H. man that does not provide this help.

2. Promote the Industrial Hygienist from GS-11 to GS-12.

Justification:

- a. The Industrial Hygienist was examined by the Interagency Board of Civil Service Examiners in Washington, D.C.; was qualified, and placed on the Federal Register with a score of 78 before he reported aboard.
- b. The Industrial Hygienist resubmitted a form 171 for examination and is on the Federal Register and is qualified for a GS-12 position with a score of 83 since September 1969.
- c. From the Department of the Navy Position Classification Standards for Managers of Industrial Hygiene Programs in the evaluation plan on pages 6 to 10 - (See enclosure (1)) a fair score under this evaluation plan would range, minimum to maximum, from 19 to 25 points. This is based on the program having a substantial range and depth of functions; that conditions in the Shipyard and satellite facilities served are in the medium to high health hazard category; and that employee population served is over 7,500.

The grade conversion table is as follows:

Total Points	Grade
Up to 9	GS-11
15 to 21	GS-12
27 to 33	GS-13

The score qualifies the Industrial Hygienist for a GS-12 or 13.

- d. After submitting to a two day written examination, the incumbent Industrial Hygienist was certified in the comprehensive practice of Industrial Hygiene by the American Board of Industrial Hygiene. There are about 200 Industrial Hygienists that have achieved certification by examination and this number is increasing at the rate of 25 a year. About 368 certifications were issued prior to July 1, 1962 to those that met requirements including 18 years experience in the field. Many employers include certification as a requirement for employment. The passage of the Federal Occupational Health and Safety Act is pending.

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C. Recommendations (continued):

Justification (continued):

One of the developments expected from this Act is that Companies in violation will be required to conduct surveys supervised by a certified Industrial Hygienist. A certified Industrial Hygienist is worth more.

- e. Promotion would improve the status of the program which it sorely needs and it would improve the morale of the incumbent.
- f. The incumbent can and should be promoted under Federal Personnel Manual Part 1, Chapter 335, Sub-chapter 4, Paragraph 3 - quote: "Promotion to positions upgraded without significant change in duties and responsibilities. An agency must provide for an exception to competitive promotions procedures to allow for promotions of an incumbent of a position which has been upgraded without significant change of duties and responsibilities on the basis of either the issuance of a new classification standard or the correction of a classification error. If the incumbent meets the legal and qualification requirements for higher grade, he must be promoted noncompetitively unless removed from the position by appropriate personnel actions (See FPM Supplement 752-1)".

See enclosure (2), Chapter 4, paragraph 2-4, which provides for promotion on the basis of accretion of additional duties is irrelevant. This is the argument used by the administrative officer against promotion in the meeting in the Medical Officers' office May 21, 1970.

The position description for GS-12 and 11 are enclosed (enclosure 3) and it shows that in actuality III-Controls described in GS-12 PD are in effect rather than III-Controls in the GS-11 PD which is the only difference in the two Position Descriptions.

3. Provide the Industrial Hygiene Program with additional staff.

Justification:

- a. There should be a trained replacement available if the present Industrial Hygienist should die, become disabled or be lured away by an offer of better working conditions and higher pay.
- b. This man should be hired in advance of the above need to insure some uninterrupted competent service in the Shipyard. This would avoid long interruptions that have occurred while recruitment was attempted in an occupation with a short supply. The membership roles of the two major professional societies in the field totals 2,460 in the USA. Most Industrial Hygienists belong to one or both of these societies.

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C. Recommendations (continued):

Justification (continued):

- c. If the program is to be expanded to include most of the functions listed in enclosure (1) more staff will be needed.
- d. The management of the Long Beach Naval Shipyard prides itself on being a forward looking, modern, efficient Shipyard. Good morale among employees is synonymous with good management. When good health services are provided, employee morale tends to be better - all other things being equal; the opposite is the case when sub-standard services are rendered. In conversations with many Shipyard workers, this observer has gained the impression that the majority of them are not satisfied with the health services provided by the Shipyard. Any management of any industrial facility that in this day and age is not aware of the increased emphasis by this society on improvement of the environment including the work environment and does not do anything about it, is open to criticism. Following is a list of the number of environmental health people hired by other shipyards in the Navy from the membership roles of the Navy Industrial Hygiene Association:

SHIPYARD	NUMBER OF MEMBERS
Pearl Harbor	7
Puget Sound	5
Portsmouth, N.H.	5
Mare Island	4
Charlestown	4
Norwalk	3
Boston	2
Hunter's Point	2
Philadelphia	1

It is suggested that the Long Beach Naval Shipyard employees deserve better service than indicated above. At least Philadelphia has a secretary.

Comment: The suggestion that the pharmacist be trained in some of the fundamental aspects of Industrial Hygiene brought up in a meeting in the Medical Officer's office May 31, 1970, is well taken. However, nothing has been heard about this since then and the pharmacist has not been approached about this matter. It must be pointed out that Civil Service Regulations provide that above GS-5 a degree granted by a four year college or University is required.

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C. Recommendation (continued):

Justification (continued):

Comment (continued):

It would be a cruel hoax to imply to this individual that he can advance in the Industrial Hygiene ranks. Some other arrangement can probably be made.

4. Relieve the Industrial Hygienist of three duties assigned to him during the time when ^{he} had little to do and less to do it with. These are: issuing ear plugs, running urine porphyrin screening tests and writing the entire Quarterly Report for BUMED.

Justification:

- a. This would free time for the Industrial Hygienist to perform more skilled activities for which he is trained and qualified.
- b. Ear plugs were formerly issued in the physical exam room where it would be easier to issue to all new employees ear plugs at the time of hiring.
- c. The Industrial Hygienist objects to fitting ear plugs personally because BUMED INST 6260.6B of 5 March 1970, "Hearing Conservation Program" is not being followed. Paragraph 5. c. in part states: "The auditory canal should be visually inspected by a qualified member of the Medical Department and the canal studied for size, configuration, foreign material and evidence of pathology. The canals should be prepared - by the removal of cerumen and any foreign materials". The Industrial Hygienist is not qualified to act in a physician's capacity.
- d. The fitting of ear plugs causes constant distracting interruptions in this office.
- e. The simple, but time consuming task of running urine porphyrins was formerly done in the pharmacy. This work takes time that could be better spent on more complicated Industrial Hygiene activities.
- f. Except for the Industrial Hygiene sections of the Quarterly Report, the Report has nothing in common with Industrial Hygiene and this duty is nowhere mentioned in the job description. This job was formerly done by the Medical Officer's secretary.

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Recommendations (continued):

Justification (continued):

- f. (continued): When she died, the Administrative Officer wrote it for one quarter and then gave it to this office. The better part of the first ten days of the quarter spent on this activity, could better be used in strengthening the Industrial Hygiene program
5. Provide such amenities and necessities as a private telephone with outside privileges and autovon services. Be put on the list of people privileged to pass outsiders through the gate. Have a listing in the Base telephone book with his proper title. The need for the above changes illustrates the indifferent attitude toward the program in the quarters that decide on the above matters.

Justification:

- a. It is demeaning to have to make outside calls in some other office without privacy when an outside phone is, for instance, installed in the physical exam room for the use of a GS-5. An outside phone is essential, for instance, to call local manufacturers about the composition of hazardous substances used in the Shipyard or call other I. H. offices to get information and for numerous other purposes.
- b. Sometimes salesmen or other I. H. men call at the gate and the Industrial Hygienist would like to see them. He cannot pass them, and the Medical Officer and the Administrative Officer who have this privilege are not always here.
- c. The Industrial Hygienist should be listed in the telephone as such not Hygienist as listed. This mistake indicates some ignorance on the part of the person who submitted this listing or an attempt to embarrass the office with irrelevant telephone calls and if this is the case, it was a smashing success.
6. The Industrial Hygiene program be given a budget and have control of it.

Justification:

- a. The Industrial Hygienist should be in the position to plan his program including the purchases of equipment, supplies, travel, and training. Others are not in a position to decide on the needs of the program. As it is, there is no set amount of money budgeted for this purpose or if there is, this office has no knowledge of it.

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7. It is recommended that the Industrial Hygienist be sent to the annual American Industrial Hygiene Conference every year. This is sponsored by the two major professional organizations in the field and is preceded by The Naval Industrial Hygiene Association meeting. The TAD for this meeting was cancelled this year after a memorandum from Washington came out instructing Navy facilities to cut travel by one third. The Industrial Hygienist felt so strongly about the value of this work related meeting that he went at his own expense - an expense that he could ill afford on his salary. Also, the Western Industrial Health Conference should be attended. This is a two day meeting held in some Western City each Fall. Next year it will be held at the Century Plaza in Los Angeles.

Justification:

The Industrial Hygiene Billet at this Shipyard is an isolated one. The profession is a small but active one, where change and improvement are a way of life. If one becomes isolated and out of touch with colleagues, he soon becomes obsolete. Often much information and opinion can be had by face to face contact that would be otherwise unavailable.

8. The Industrial Hygienist should be sent to training courses such as those offered by the USPHS, NAVY, Universities, and State agencies. This would be most important if staff is increased with personnel that have not attended any of these short courses. The need for continued education and polishing of skills should be self evident in this broad ever shifting field.
 9. There should be better communication among staff members and the staff should be let in on what is going on in the Shipyard. This would provide a sense of belonging that is desirable. A periodic staff meeting is recommended. As things stand, the staff is in the dark and feels left out. Meetings are good places to resolve grievances
- D. Discussion: Examination of the enclosure (1) would indicate many more discrepancies between what the NAVY expects from an Industrial Hygiene program, and what can be provided with the limited resources at hand. Implementation of the above nine recommendations would be a solid start toward organizing an effective Industrial Hygiene program for the Long Beach Naval Shipyard. It is realized that there are many obstacles in the way of improving the Industrial Hygiene program - lack of space, lack of money. However, the greatest obstacle in the way of upgrading the program is lack of backing from key people in the power structure of this Shipyard, who apparently have little understanding of the need for environmental control and consequently, could care less about upgrading the program.

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Discussion (continued):

It is requested that the Medical Officer read this memorandum and it is requesting that he discuss its content in detail with the Industrial Hygienist as soon as possible.

From past experience, the occupant of the I. H. billet is not optimistic that this memorandum will result in anything tangible, but he is certain that verbal recommendations die in the breeze. Recent events such as the latest picayune and unrealistic response put forward by the Administrative Officer for not acting on a promotion to GS-12 despite the fact that the incumbent was told by Mr. Huston, Employment Manager, that after reporting aboard, he would be so elevated and was so qualified by Civil Service examination. The cancellation of the TAD for the conference in Detroit, and the realization of the who and why of the decision has deepened the frustration felt by this writer and it is believed these frustrations contributed to his recent illness. The incumbent has come to the conclusion that this Shipyard never was and never will be interested in a strong Industrial Hygiene program. If the incumbent is not the man to fill the billet, he would like to know that also. Perhaps his services can be used to better advantage elsewhere.

Sheldon Manning
Industrial Hygienist
Long Beach Naval Shipyard

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