FILE NAME: Garlock (GAR)

DATE: 1975 Dec 12

DOC#: GAR095

DOCUMENT DESCRIPTION: Internal Inspection Report - Dept of the Navy - Airborne Asbestos Levels During Gasket Manufacture

104.2 00251/12-12-75 / B107 Gasket stamping

CODE 300 Z-
4 Shop 56

DEPARTMENT OF THE NAVY
NAVAL REGIONAL MEDICAL CENTER
BREMERTON, WASHINGTON 98314

NRMC BREM 430/LRL:cp
6260/56
DEC 12 1975

From: Commanding Officer, Naval Regional Medical Center, Bremerton, WA 98314
To: Commander, Puget Sound Naval Shipyard, Bremerton, WA
(Superintendent Shipfitter)

Subj: Airborne asbestos levels during gasket manufacture

Ref: (a) Memo from Code 385 PSNS to Code 430 NRMC BREM, of 5 Sep 1975
(b) NAVSHIPYDPUGET INST 6260.11, Part B, Chapter 1

1. Reference (a) requested air sampling to determine the airborne asbestos levels during asbestos gasket manufacture in Shop 56, Building 107.

2. Air samples were collected on 16 November during machine stamping and on 2 December during hand stamping of 1/16 inch Garlock gasket material. The air concentrations were 5 and 3 asbestos fibers (5 micron and longer) per cubic centimeter of air during machine and hand stamping respectively. The allowable 8 hour exposure limit is currently 5 fibers/cc and will be lowered to 2 fibers/cc on 1 July 1976 (reference (b)).

3. It is recommended action be taken to reduce the airborne asbestos levels. The preferred means is by substitution of non-asbestos material. In the interim, gasket makers must be considered as asbestos workers. Medical examination and process controls must be in accordance with reference (b). These requirements also apply to personnel using asbestos in manufacturing pipe hangers.

Roger R. Beckett
ROGER R. BECKETT
By direction

PLAINTIFF'S EXHIBIT
101
4-9-07

COLLECTION AND COUNTING AIRBORNE ASBESTOS FIBERS
PHASE CONTRAST MICROSCOPY METHOD

DATA SHEET AIRBORNE ASBESTOS FIBER CONCENTRATION 4.7 fibers/cc

DATE: 11-16-75 SAMPLE #: 191

SAMPLE LOCATION: GASKET SECTION - Shop 56

AIR SAMPLER FLOW RATE (liters/min): 1 lpm

TIME ON: 1343 OFF: 1400 NET TIME: 17 (minutes)

TOTAL AIR VOLUME: 17 (liters)

BLANK COUNT AVERAGE: < 1 fibers/filter

AVERAGE COUNT: .47 Fibers/Field

COMMENTS: stamping (punch)

COLLECTED BY: J. Ulebaten COUNTED BY: J. Ulebaten

1	0	1	1	
1	0	0	0	
0	1	0	0	
0	0	0	0	
0	1	0	1	
1	1	0	1	
1	2	1	0	
1	0	0	0	
0	0	1	0	
2	1	0	0	
0	0	0	0	
0	0	0	2	
0	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	1	0	
0	1	0	0	
1	2	1	0	
0	2	0	0	
2	1	1	0	
1	0	0	0	
0	0	0	0	
0	0	0	0	
0	0	1	0	
13	16	10	8	

Type of Gasket Material: Garlock

Protective Equip. Used: none

47 fibers/100 fields

.47/field

CALCULATIONS:

AIRBORNE ASBESTOS CONCENTRATION =

(Average Fiber Count)(Filter Area)
(Field Area)(Sample Volume)(1000)

$$\frac{.47\,(855)}{.00\,50\,(17)\,1000} = 4.7/cc$$

COLLECTION AND COUNTING AIRBORNE ASBESTOS FIBERS
PHASE CONTRAST MICROSCOPY METHOD

DATA SHEET AIRBORNE ASBESTOS FIBER CONCENTRATION 3 fibers/cc

DATE: 12-2-75 SAMPLE #: ~~204~~ 188

SAMPLE LOCATION: Gasket Section - Shop 56

AIR SAMPLER FLOW RATE (liters/min): 1.8 lpm

TIME ON: 1401 OFF: 1416 NET TIME: 15 (minutes)

TOTAL AIR VOLUME: 27 (liters)

BLANK COUNT AVERAGE: < 1 fiber/filter

AVERAGE COUNT: .48 fibers/field

COMMENTS: "Manual Sawcraft - Harlock" HHP-NGC Sym 2150 Type 7595 1/16" thick 5 ft stay

COLLECTED BY: [signature] COUNTED BY: [signature]

Foreman Hanshaw

0	1	1	0	0
	1	0	0	0
	0	0	0	0
	1	1	0	1
5	0	4	0	2
	0	1	0	0
	0	0	0	0
	1	1	1	1
	0	0	0	1
10	0	0	0	2
	1	1	0	0
	0	0	0	0
	0	0	0	0
	1	0	1	0
15	0	0	0	1
	1	0	0	0
	0	3	0	0
	0	0	3	1
	0	0	0	0
20	2	2	0	1
	0	0	0	0
	1	0	0	0
	0	0	1	0
	0	1	2	2
25	1	0	1	0
CALCULATIONS:	11	16	9	12

48 fibers/100 fields
.48 fibers/field

AIRBORNE ASBESTOS CONCENTRATION =

(Average Fiber Count)(Filter Area)
(Field Area)(Sample Volume)(1000)

.48 (855)
(0.00454)(27)(1000)
= 3 fibers/cc