

FILE NAME: General Electric (GE)

DATE: 1965-1971

DOC#: GE198

DOCUMENT DESCRIPTION: GE Phila Plant - BC Notes & 7 Docs [From PA Archive]

General Electric Philadelphia

- 1965 Operation/Hazard/Control Measure matrix with asbestos dust hazard documented in Plastics Laboratory
- 1970 Report of asbestos dust study – switch gears manufacturing 0.12 – 0.25f/ml
- 1971 Field report of Asbestos dust
- 1971 Report letters of plant survey of asbestos dust - in arc chute molding dust counts < 5MPPCF

General Electric Co.
Re-entry Systems Dept.
Missile & Space Div.
3198 Chestnut St.
Phila.

- 5 -

12-1-65

OPERATION	HAZARD	CONTROL MEASURE
tests employing low energy explosives (Class C). Stress patterns and other data are measured electronically.		
Tungsten heat lamps (up to 1800° F) are used within a hooded enclosure to test the effects of heat on surfaces of mock-up vehicles.		
Maintenance machining, welding is conducted and vibrating unit is used occasionally.		
1406	Plastics Laboratory	
Hand lay-up operations are conducted intermittently. Gloves and hand creams are provided. Resin mixing (toluol, MEK, xylol) is conducted under an exhaust hood. One-half to three-fourths gallon of benzene is used annually. Laminated parts are cured in an electric oven (400° F) which is locally exhaust ventilated.		
Mixing silicone rubber	*Stannous Octoate vapor Silicone rubber dust Silicone Blowing Agent dust GERTV-921 Fluorocarbon mold release S-142 Dermatitis	General ventilation Occasional operation Gloves & hand creams
*Manufactured by M & T chemicals of New York. Only eye dropper quantities are used.		
Aluminum etching	Sulfuric dichromate mist Dermatitis	Exhaust hood Small (beaker) quantities
Potting	Epoxy resin vapor Triethylene tetra- mine vapor Dermatitis Asbestos dust	Local exhaust ventilation Small quantities Gloves General ventilation Approved dust respirators USBM 2166 Occasional operation (one weigh in two days for 5 minutes).
Asbestos weighing		

REPRODUCTION OF AN ORIGINAL RECORD
PLEASE CHECK
PA STATE ARCHIVES
000052121 12-1-65

J. H.

REGION _____

PROD. MFG. OR SERVICE _____

SWITCH SEALS

FIELD ACTIVITY REPORT

DATE OF ACTIVITY 6/8/70 - 9/4/70

PLANT _____

General Electric Company

ADDRESS _____

6901 Elmwood Avenue, Phila.

ZIP _____

19142

PHONE _____

215 SAU-1500

PERSON INTERVIEWED Wm. TooheyTITLE Safety SpecialistA.A. Cashmere (letter) 6/8/70

Plant M.E.

EMPLOYEES

MALE

FEMALE

TOTAL

6000

INS. CODE

3600

COUNTY

Phila.

PURPOSE: INVEST.; SURVEY; INSPECT.; PRELIM.; E.L.; CONF.; VISIT

REASON: SELF-INIT.; O.S. REP.; COMPL.; REQUEST; SOURCE

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHED		
		WRITTEN	VERBAL	YES	NO	IN PROG.
AR	3	(see remarks)				

SAMPLES COLLECTED 4 bulk dust

(NO. & KIND)

TOTAL

Y

DETERM. MADE _____

(NO. & KIND)

TOTAL

MEDICAL - O.S. REPORTED, NO. & KIND _____

PUNCH CARD

YES

☒

NO

☐

FOLDER

YES

☒

NO

☐

REMARKS:

AR forms dated 6/4/70 received on 6/8/70. Unprocessed applications among unfinished work of J.S. reassigned on ~~registration~~ reassigned

Called A. Cashmere of G.E. on 8/20/70 requesting additional information on filter and polishing components. This was received on 9/2/70. It was felt advisable to obtain samples from the dust collector and visit will be made for this purpose.

Addendum - 9/4/70

I.H. visited plant to obtain bulk samples from the collector, after filters and of the compounds used. I.H. also observed the system and determined approximate percentages of each polishing compound used. Comments on the AR system will be delayed until receipt of lab analysis of bulk samples for free silica. Mr. Johnson also showed to I.H. an area where asbestos fibre board is manufactured. He said he has received approval to design a ventilation system for this area. All ventilation will be exhausted to the outside. A visit will be made in 6-8 weeks to determine progress on the design. Manufacturer's bulletin containing performance charts on the Roto-Clone is in the folder. See company letter from Mr. Johnson to Regional office for additional data on the AR unit. Polishing compounds are in use for about 10% of the work. Of this 10%, the percentages of the 4 compounds comprise the following: "XXX White Diamond 2 to 3%; White and red jewelers rouge - 2 to 3%; Emery paste - 1%; Tripoli - 3 to 5%." by William Beckett R.H. JFK
J. Steluto

WINS

1.5

0000000000

ARCHIVES

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
OCCUPATIONAL HEALTH

6204

PAGE 1 OF 1
REGION I
DATE COLLECTED 11-30-70
DATE SUBMITTED 12-7-70
DATE REC'D IN LAB. 12-8-70

SAMPLE AND LABORATORY REPORT

NAME OF COMPANY

General Electric Co.

ADDRESS

6901 Elmwood Avenue
Philadelphia, Pa. 19142

PRODUCT MANUFACTURED OR SERVICE
Switch Gears

MATERIAL SAMPLED
Air

APPARATUS AND SUCTION SOURCE
Monitairia - Gelman - RAC

COLLECTED BY
Beckett & Liberi

COLLECTION MEDIUM
Sac Membranes

ANALYSIS DESIRED
Asbestos - Fibre Count

OTHER SUBSTANCES PRESENT

COMMENTS

SAMPLE NUMBER	SAMPLING LOCATION AND OPERATION	AIR VOLUME	LABORATORY RESULTS
		M ³	
I-3511	O.E. Hydraulic Press Op.	0.367	0.24
I-3512	O.E. " " "	0.307	0.10
I-3513	G.A. - 13 ft. from hopper	2.84	0.01
I-3514	G.A. - 7 ft. " "	1.05	0.02
I-3515	Blank	---	N.D.*
I-3516	Blank	---	N.D.*

REPORT OF ANALYSIS

*None Detected

Counted by phase-contrast microscopy
(Fibers greater than 5 microns)

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FBI - PHILADELPHIA

ANALYST F. Bennett

DATE 12/10/70

CHEMIST

DATE REC'D 12/11/70

DATE TYPED 12/11/70

DATE SUBMITTED TO REQUESTING AGENCY

6-0-87
HARRISTOWN ADDRESS: 1875 New Hope Street
Harristown, Pennsylvania 19401
215 277-3210

April 8, 1971

General Electric Company
6901 Elmwood Avenue
Philadelphia, Pennsylvania 19142

Attention: Mr. William Toohay
Safety Specialist

Gentlemen:

On November 30 and December 8, 1970 a survey was conducted in the arc chute molding and milling departments of your plant to evaluate employees' exposures to asbestos dust and noise. The survey was made with the cooperation of Mr. Toohay.

Samples of airborne dust were collected with midget impingers containing absolute ethyl alcohol and with membrane filters. Dust concentrations were determined from the impinger samples using a standardized light-field microscopic technique and from the filter samples by phase-contrast microscopy. The results are presented in Table 1.

The threshold limit value for asbestos is 5 million particles per cubic foot of air based on exposure for an 8-hour working day. It should be noted that the American Conference of Governmental Industrial Hygienists has proposed an additional limit based on fiber count. This intended threshold limit value is 5 fibers per milliliter of air greater than 5 microns in length, based on exposure for an 8-hour working day.

Exposures to asbestos dust were less than the threshold limit value (see Table 1). It should be noted, however, that the level found at the charging and weighing station in the arc chute molding department approached the threshold limit for asbestos dust.

In keeping with good industrial hygiene practices and to maintain exposures as low as possible, the following recommendations are made:

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GENERAL ELECTRIC COMPANY
HARRISTOWN, PENNSYLVANIA

4-13-71

April 8, 1971

1. Continue with your plans to improve the local exhaust ventilation system at the charging and weighing station.
2. Establish a maintenance program for the local exhaust ventilation systems in the arc chute molding and milling department. This program should include periodic inspection of the system for leaks.

Noise measurements were made with a General Radio Company sound level meter and the results are listed in Table 2.

Table 3 lists noise threshold limits adopted by the American Conference of Governmental Industrial Hygienists which are exposure limits that should protect the ability to hear and understand speech. These limits have also been made a part of the United States Department of Labor rules under the Walsh-Healey Public Contracts Act.

As shown in Table 3 the noise exposure limits have been exceeded at the flame treating operation and mill No. 5090. Noise exposures were in the vicinity of the threshold limit value at the other milling and sawing operations. In the compound area, where polyester plastic is milled, noise exposures were less than the threshold limit value. It should be noted that exposures will vary as the frequency of operations varies. Because of our findings, the following recommendations are made:

1. Reduce noise levels at the flame treating operation, mill No. 5090 and the polyester plastic sawing operation. This may be accomplished by the following:
 - A. Institute a periodic maintenance program that includes replacement of worn gears and bearings and keeping attachments as tight as practical.
 - B. Install vibration mounts on machinery.
 - C. Attach vibration-damping material to structural members and panels.
 - D. Acoustically enclose equipment, either partially or totally.
2. Provide properly fitted ear plugs or muffs for personnel exposed to noise.
3. Institute a program of preplacement and periodic audiometric tests for all employees exposed to noise.

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GENERAL ELECTRIC COMPANY

34

Tables of dust concentrations, noise measurements and noise threshold limit values, our Hygienic Information Guides entitled "Asbestos", "Ventilation" and "Noise" and Article 432, as revised, are enclosed. An additional copy of our report is enclosed. Mr. George Beckson, steward, Local 119, requested a report of our findings.

Leon T. Conshor
Regional Industrial Hygienist

ΣΥΝΟΛΟ

Exercises

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U.S. DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
WASHINGTON, D.C.
JAN 10 1968

Commonwealth of Pennsylvania
Department of Environmental Resources
OCCUPATIONAL HEALTH

Table 1 Dust Concentrations

General Electric Company
6901 Elmwood Avenue
Philadelphia, Pennsylvania 19142

Location	Dust*		Remarks
	(fibers per milliliter of air)	(millions of particles per cubic foot of air)	
Arc chute molding department	0.2		Hydraulic press operators' exposures, integrated over several hours
	0.1		
	0.02		General air, 7 feet from weighing station
	0.01		General air, 15 feet from weighing station
			Operator's exposure, charging hopper and weighing asbestos and zircon
		0.6 0.2	Operator's exposure, mixing zircon, asbestos and acid
		0.5	Operator's exposure, molding
		0.4	Operator's exposure, molding and filling mold
		0.3	Operator's exposure, mixing material and molding

360 No. 1000
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Department of Environmental Resources
OCCUPATIONAL HEALTH

Table 1 (continued)

Dust Concentrations

General Electric Company
6901 Elmwood Avenue
Philadelphia, Pennsylvania 19142

Location	Dust*		Remarks
	(fibers per milliliter of air)	(millions of particles per cubic foot of air)	
		0.4 0.2	Operator's exposure, cleaning press
		0.1	Operator's exposure, filing mold and sweeping floor
		0.2	General air, no activity
Arc chute milling department	0.1	4.7 0.2	Operator's exposure, cut-off mill
	0.1	0.2 0.5	Operator's exposure, mill No. 5082
	0.2	1.8 1.2 0.6 0.3 0.2	Operator's exposure, mill No. 5043
	0.3	2.4 1.3 0.3 0.2	Operator's exposure, mill No. 5090

*Threshold limit value for asbestos dust, based on exposure for an 8-hour working day - 5 million particles per cubic foot of air

Proposed threshold limit value for asbestos fibers, based on exposure for an 8-hour working day - 5 fibers per milliliter of air, greater than 5 microns in length

APPROVED FOR RELEASE

APPROVED FOR RELEASE

REGION 1
PROD. MFG. OR SERVICE switchgear
DATE OF ACTIVITY 6/15/71

FIELD ACTIVITY REPORT
(Occupational Health)

File

PLANT General Electric Company

ADDRESS 6901 Elmwood Avenue, Philadelphia, Pennsylvania ZIP CODE 19142 TELEPHONE 215 846-1500

PERSON INTERVIEWED Toohy, William TITLE Safety Specialist

EMPLOYEES
MALE 1600 FEMALE 3600 TOTAL 5200 IND. CODE 3600 COUNTY Philadelphia

PUNCH CARD YES ☒ NO ☐ FOLDER YES ☒ NO ☐ N.S.N. YES ☐ NO ☒

PURPOSE: INVEST; SURVEY; INSP.; PRELIM.; P.D.; CONF.; VISIT; OTHER _____

REASON: SELF-INIT.; P.D. REP.; COMPL.; REQUEST; SOURCE _____

SAMPLES COLLECTED _____ TOTAL _____
(NO. & KIND)

DETERM. MADE _____ TOTAL _____
(NO. & KIND)

MEDICAL -- O.D. REPORTED, NO. & KIND _____

RECOMMENDATIONS AND REMARKS						
SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	4/8/71 RECOMMENDATIONS		ACCOMPLISHED		
		WRITTEN	VERBAL	YES	NO	IN PROG.
Noise	33	1. Reduce noise levels				see remarks
		2. Ear protection				
		3. Audiometric tests				
Asbestos	33	1. IEV improvement				
		2. IEV maintenance				

Remarks

I. H. visited the Greenway Ave. plant to determine noise levels in the Custom Power and Equipment Department (see F.A. 6/15/71 in that folder). During the visit I. H. asked Mr. Toohy about compliance with the above recommendations for the arc chute molding and milling departments in the main plant. Toohy did not know the status of the control measures. He said an enclosure for the flame treating operation in the milling department was being designed and a ventilation system was almost completed for the molding department. He requested I. H. to return later to discuss these topics. Revisit in two to four weeks.

SAFETY

☐ OVER

by Mr. Beckatt _____

DATE 7/15/71

REGION IPROD. MFG. OR SERVICE
switchgearsDATE OF ACTIVITY 10-8-71FIELD ACTIVITY REPORT
(Occupational Health)

PLANT

General Electric Company

ADDRESS

6901 Edinwood Avenue Phila., PA

ZIP CODE

19142

TELEPHONE

215 SA-1900

PERSON INTERVIEWED

William Teshey/Lloyd Piccin

TITLE

Safety Specialist/ Management of

EMPLOYEES

MALE

FEMALE

TOTAL 6000

IND. CODE

36

COUNTY

Sriety

Phila.

PUNCH CARD

YES ☒NO ☐

FOLDER

YES ☒NO ☐

N.S.N.

YES ☐NO ☒

PURPOSE: INVEST.; SURVEY; INSP.; PRELIM.; F.D.; CONF.; VISIT; OTHER

REASON: SELF-INIT.; P.D. REF.; COMPL.; REQUEST; SOURCE

SAMPLES COLLECTED

(NO. & KIND)

TOTAL

DETERM. MADE 5 noise (G.R. Octave Band Analyzer)TOTAL 5

(NO. & KIND)

MEDICAL - O.D. REPORTED, NO. & KIND

RECOMMENDATIONS AND REMARKS

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHED		
		R 4-8-71	WRITTEN ... VERBAL	YES	NO	IN PROG.
Noise	32	1. reduce noise levels at the flame treating operation, mill no. 5090 and polyester sawing operation				x
		2. provide properly fitted ear plugs or muffs		x		
		3. institute pre-placement and periodic audiometric tests		x		
Asbestos	33	1. IEV improvement				x
		2. IEV maintenance		x		

Remarks

Followed up above recommendations. Two adjacent flame treating operations were the major source of noise in the arc chute milling dept. There were oxy-gas torches. One of these has been replaced with a plasma arc unit which is located in an acoustically enclosed room about 40' x 25' x 20'. The immediate arc area is itself acoustically enclosed and exhausted to wet collector. The work is placed on a sliding table which, when pushed in place forms a good enclosure. The nozzle of the plasma arc unit was modified to reduce noise level. The unit is not in full production and is still undergoing modification. Although it was not in use during the visit, the unit was turned on so that noise levels could be measured. Work was not put in the unit. Following are noise levels:

☐ OVER

BY: Beckett

WHS 15

RTH 22

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