

FILE NAME: Westinghouse (WH)

DATE: 1960-1971

DOC#: WH138

DOCUMENT DESCRIPTION: Barry Castleman Notes on WH Lester, PA, with Documents

Westinghouse Lester

- 1962 punch card for steam division plant Operation/Hazard/Control Measure matrix
- 1971 field report investigating smoke and fumes
- 1970 summary of investigation
- 1968 field report
- 1964 summary of dust study investigation
- 1965 field report
- 1965 lab report of free silica dust
- 1964 union newsletter article
- 1964 field reports investigating welder lung case
- 1962 & 1963 field reports
- 1962 & 1963 lab reports
- Probable 1961 or 1963 Operation/Hazard/Control Measure matrix with remarks asbestos dust documented for mixing asbestos, making asbestos rolls, sewing asbestos blankets, cutting and sewing asbestos sheets
- 1960 summary of investigation with asbestos spray documented for soundproofing and insulation boiler casting

REGION		COUNTY	PLANT NAME - ALPHABETIC	UNIT
COMMONWEALTH OF PENNSYLVANIA		PLANT INFORMATION RECORD		
DEPARTMENT OF HEALTH				
DIVISION OF INDUSTRIAL HYGIENE				
PLANT Westinghouse Electric Corporation (Steam Division)				
Address Lester Branch, P. O. Philadelphia 13				
Lester, Pennsylvania				
FACILITY OR SERVICE Steam Turbines				
PERSON INTERVIEWED Carl E. Morris, Supervisor, Accident Prevention				
PHYSICIAN				
DENTIST none See Attached Sheet <i>Refer folios Page 6 & 10</i>				
NURSE				
SAFETY SUPERVISOR Carl E. Morris				
INDUSTRIAL HYGIENIST A. Spiker (Headquarters in Pittsburgh)				
INSURANCE CARRIER Self insured				
LEGAL OWNER Westinghouse Electric Corporation				
RECOMMENDATIONS See attached sheet.				
REMARKS See attached sheet.				
TYPE OF INSPECTION Inspection				
DATE Aug. 13-27/1962 Szabo				
LIST HAZARDS AND CONTROL MEASURES ON REVERSE SIDE				
HAZARDS				
CONTROL MEASURES				

OPERATION	HAZARD	CONTROL MEASURE
Receiving Dept.	steel, wood, paper, dust	general ventilation
	dermatitis	personal hygiene
Cut off saws	steel, dust, cutting oil	general ventilation
	mist	
	dermatitis	personal hygiene
Heavy machining department (Buildings O-P, S, R, S)		
Drill Presses	steel dust	general ventilation
lathes	cutting oil mist	
boring mill		
cut off saw	dermatitis	personal hygiene
shaping machine		
shaping machine (2)	heat, CO, CO ₂ gas	enclosed operation
see #1 and 1920°F	dermatitis	personal hygiene
shot blasting room	steel, silica dust	enclosed, local exhaust
	noise	air line respirator
grinding	steel, silicon carbide dust	local exhaust
	dermatitis	personal hygiene
protective coating	red lead oxide paint	respirators
	dermatitis	
	thinner vapor & mist	general ventilation
degreasing	trichloroethylene	general ventilation
	vapor and mist	respirators
	dermatitis	personal hygiene
chirking	steel dust, noise	general ventilation
	dermatitis	personal hygiene
welding		
electric	iron oxide fumes, U.V., I.R.	welder's helmet
Acetylene	heat, ozone, CO, CO ₂ gas	general ventilation
Oxyarc	oxides of nitrogen	flexible hose
submerged arc	fluorides	local exhaust
Heat treating	heat, CO, CO ₂ gas	enclosed operation
gas heated 1500°F	dermatitis	personal hygiene
oil quenching	heat, CO, CO ₂ gas	general ventilation
	smoke, oil mist	
	dermatitis	personal hygiene
sand blasting units	silica dust	enclosed, locally exhausted
	noise	air line respirators
nitriding units	ammonia gas, hydrogen and nitrogen gas	local exhaust ventilation
salt bath furnaces	Torchon's liquid heat	enclosed
	CO mist vapor	local exhaust
	dermatitis	personal hygiene
tool cutting & grinding shop	steel dust, silicon carbide dust, noise	general ventilation
	dermatitis	personal hygiene
chrome plating tank	chromic acid mist	local exhaust
	chromate vapor & mist	
	dermatitis	personal hygiene
Hydride tank	hydride salt fumes	local exhaust
1000°F	heat, dermatitis	personal hygiene

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
OCCUPATIONAL HEALTH*Alfonso
7 file*REGION I
PROD. MFG. OR SERVICE
steam turbinesFIELD ACTIVITY REPORT
(Occupational Health)DATE OF ACTIVITY 12-15-7112-27-71 1-4-72

Complaint #205

PLANT

Westinghouse Electric Corporation, Lester Power Generation Div.

ADDRESS

Lester

ZIP CODE

19113

TELEPHONE

595-2362

PERSON INTERVIEWED

Andrew Porto, Mel Whittington; Shop Steward; Supv. Accident and Prevention

TITLE

EMPLOYEES

MALE

FEMALE

TOTAL 8600

IND. CODE

35

COUNTY

Del. - 23

PUNCH CARD

YES ☒NO ☐

FOLDER

YES ☒NO ☐

N.S.N.

YES ☐NO ☒

PURPOSE: INVEST, SURVEY, INSP, PRELIM, F.U., CONF, VISIT, OTHER

REASON: SELF-INIT., P.D. REF., COMPL., REQUEST, SOURCE Mr. Porto

SAMPLES COLLECTED

(NO. & KIND)

TOTAL

DETERM. MADE

(NO. & KIND)

TOTAL

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

RECOMMENDATIONS AND REMARKS

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHED		
		WRITTEN	VERBAL	YES	NO	IN PROG.
Smoke-fume	600	pending investigation				
welding fume	80	R-9-3-71				
B-plant, O-aisle		make-up air				

12-15-71

Mr. Porto called concerning the following:

Smoke and fumes are escaping from the adjoining forge shop into the blade shop (where he works). He has put in two grievances but no action has been taken by the company. Mr. Porto was asked to submit complaint in writing. Due to previous contact with plant concerns this area investigation will be scheduled before receiving written complaint.

12-22-71 - Visited plant

Talked with Mr. Whittington who said plant was only working one-half day because of Christmas holiday. Porto not working during visit. Only one hammer was working in forge shop. At this time the forge shop did not appear to present any problem. The forge shop has 5 furnaces (gas) with thermal exhausts, 6 forge hammers and a Salt bath @1850°. The shop is scheduled to be phased out by the end of 1973. It seems that the problem is as follows: The building would be comparable to a split level with the forge shop the single level and the blade shop and another machining area on the double area.

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☐ OVER

REC

BY Leo Garey

WINS 4.0

RIN

Westinghouse Electric Corporation
12-15-71, 12-22-71, 1-4-72

It seems that this other machine shop which is above the blade shop is serviced by ventilation system with a large capacity. This creates a negative pressure in the rest of the building. Air flow is from the forge shop thru the blade shop to the 2nd floor machine shop. In effect this brings any contaminants generated in forge shop into blade shop thus the complaints. Since forge shop was not in full operation another visit will be necessary.

1-4-72

I.H. revisited plant to speak with Mr. Porto and get more information on the complaint. Also received a written petition-type complaint concerning this area (copy attached). Porto complained of gas and smoke in the blade shop coming from the forge shop. He said he and others have experienced watery eyes and severe headaches. He also noted that manufactured tools left in the area become coated. There are two furnaces in the area (gas-fired) and these along with a "Radio" sawing operation contributes to the problem. According to the union they have repeatedly filed grievances to no avail. Also mentioned by Porto was the fact that the employees in the forge shop itself had filed complaint. Other areas which contribute to the problem include a welder (day shift) with no ventilation and pickle tanks using HCl , H_2SO_4 , HNO_3 (145-160°). Smoke is generated in the forge shop when hammers hit blade. There is a buildup of smoke in the area and this passes into the blade shop. The company plans to install additional general dilution ventilation and tight swinging doors between the forge and blade shop. Without the benefit of all information on the capacity of the ventilation systems in the building to be submitted at later date by company I.H. feels problem is due to negative pressure (lack of make-up air), and/or insufficient general dilution ventilation in the forge area. At this time appropriate recommendations will be made (make-up air, additional GDU etc), and surveys may be conducted at the hammers for smoke and in the entire area for CO. The union has requested a copy of any report to the company.

Also questioned Whittington about status of recommendation of 9/3/71 concerning make-up air being supplied to the B-plant, C-aisle welding area. He said that bids were being received at this time for the engineering aspects of the system.

1-13-72

Received additional information (copy attached) requested from the company concerning dimensions of areas in question and capacities of ventilation systems serving these areas. Further information regarding make-up air to these areas still needed for complete evaluation. Company will be contacted for this information.

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Filing stamp

PA STRIKE ARCHIVE

350 Green Street, 1st Floor, New York, NY 10013
PA Strike Archive

Mr. Leon Genshor

We the undersigned;;Employees of the blade and tool shop
Westing house Corp. do call upon you to investigate the
following;

- A. Excessive smoke emissions from the forge shop into
other areas of the blade shop.
- B. Salt pot furnaces in the forge shop unequipped with
exhaust blowars.
- C. Excessive gas fumes escaping from gas fire furnaces.
- D. Improper ventilation throughout the blade shop.

We would greatly appreciate your looking into these
matters as soon as it is possible.

Thank You

Andrew J. Porto Shop Steward

Thomas J. Pace Asst. Chief
U.E. Local 107

J. H. Carter	Michael Antako	S. Comisak
H. E. Healy	Chilo H. Bergolin	J. Del Rocio
Wm. H. White	Robert Langford	Curtis Watkins Jr.
A. Harrison	Harold Hark	F. J. Richetta
R. L. Carter	W. K. Rolland	Joe Jones
A. Daddi	T. Baymon	Steve Hick
J. S. Thel	S. Dvorkow	John Linder
E. E. B. B. B.	Ima Liff	Robert Mullins
Chas. J. Goldner	H. Welch	James A. Mason
Leo E. Sharkey	J. B. Kennedy	James Willis
	A. E. Nelson	

COMMONWEALTH OF PENNSYLVANIA



THOMAS W. GEORGE, JR., M.D.
SECRETARY OF HEALTH

DEPARTMENT OF HEALTH
1400 West Spring Garden Street
Philadelphia, Pennsylvania 19130

(215) 238 6730

March 5, 1970

Westinghouse Electric Corporation
Steam Division
Lancaster, Pennsylvania 17603

Attention: Mr. M. Whittington
Supervisor/Accident Prevention

Gentlemen:

On February 27, 1970 an investigation was conducted in your plant regarding employees' exposure to smoke in the L-3 machine area. The investigation was conducted by Wesley E. Straub, industrial hygienist. As a result of this investigation, the following recommendations are made.

1. Institute a program of periodic maintenance for the general dilution ventilation systems in the forge area. This program should include inspection, cleaning and repair of motors, duct work and fans.
2. Insure that the general dilution ventilation system in the forge area is functioning at all times.
3. Isolate the L-3 machine area from the forge area by installing doors between these areas and/or provide additional tempered make-up air. The make-up air should be supplied at a rate equal to that at which air is exhausted.

Please notify this office within 30 days concerning the steps you have taken to carry out these recommendations.

Our Hygienic Information Guide entitled "Ventilation" and Article 432, as revised, are enclosed.

Very truly yours,

Leon T. Conacher
Regional Industrial Hygienist
Human Services - Region I

LTC/MS/p

Enclosures

819-19003 REV. 12-57

 REGION VII

PRODUCT, MFG. OR SERVICE

Steam Turbines

 DATE OF ACTIVITY 2/4/68

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HEALTH

OCCUPATIONAL HEALTH

FIELD ACTIVITY REPORT

EMPLOYEES

MALE

FEMALE

 TOTAL 8000

COUNTY

Delaware

IND. CODE

3500

 PLANT Westinghouse Electric Co., Steam Division

 ADDRESS Lester, Pa.

 ZIP 19113

 PHONE 215-595-2362

 PERSON INTERVIEWED Clark Glacier

 TITLE Safety Engineer

PURPOSE: INVEST.; SURVEY; INSPECT.; PRELIM.; P.O.S. CONF.; VISIT.

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

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHED		
		WRITTEN	VERBAL	YES	NO	IN PROG.
<u>Silica dust</u>		<u>None</u>		<u>See remarks</u>		

 SAMPLES COLLECTED 1 casella, generated dust
1 bulk settled dust

 TOTAL 2

(NO. & KIND)

DETERM. MADE

TOTAL

(NO. & KIND)

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

PUNCH CARD

 YES ☒

 NO ☐

FOLDER

 YES ☒

 NO ☐

REMARKS:

A visit was made to the above plant to collect samples for Ron Richards.

Reproduction of or by other means

PA STAMP

730 East 5th

 BY W. Chrostek

 SIGN LTC

 WINS 45

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Report of Survey

Washington Electric Corporation
Steam Division
Lancaster, Pennsylvania

Following a request by Mr. Carl B. Morris, supervisor of accident prevention, a survey was conducted on 30 December 1964 to estimate employee exposure to dust. Mr. Morris accompanied the industrial hygienist during the survey.

Detailed Findings

This plant is engaged in the manufacture of steam turbines. The survey was conducted at a local exhaust ventilated abrasive (sand) blasting room located in the building.

One employee is responsible for the operation of this unit. He is under medical supervision, receiving annual chest X-ray examinations. An approved abrasive blasting helmet is worn by the operator when inside the unit. He is engaged in sand blasting for approximately half of his working day.

Atmospheric samples for determination of dust concentrations were collected in the vicinity of the abrasive blasting unit by means of midgeet impingers. Distilled water was used as the collecting medium. Dust counts were made microscopically using a standardized light-field technique and the results are given in Table 2.

A particle size determination was made microscopically on an additional air sample collected with a membrane filter. The results (Table 2) indicate that the dust is respirable and capable of being retained in the lungs.

A sample of settled airborne dust was collected in the sand blasting area. This sample was analyzed for free silica content and the results is presented in Table 3. The threshold limit value for dust, based on exposure for an 8-hour working day, is determined from this datum by the formula: threshold limit value, in millions of particles per cubic foot of air, =

$$\frac{250}{5 \text{ free silica } + 5}$$

The free silica content of the settled airborne dust in the sand blasting area was 66 percent. The threshold limit value for dust containing this amount of free silica is 3.5 million particles per cubic foot of air (mppcf).

Dust concentrations in the general work area prior to and during sand blasting ranged from 0.8 to 1.9 mppcf. These concentrations indicate that employees' exposure to dust is less than the threshold limit value.

The dust concentration in the general work area following sand blasting was 6.2 mppcf. It was visually noted at this time that the door to the sand blasting unit was ajar and that a considerable amount of dust emanating from the unit contaminated the work area. The door to the sand blasting unit should be kept closed at all times.

The dust concentration inside the sand blasting unit immediately after blasting was 9.1 mppcf. This indicates that the employee should be required to wear an approved respiratory protection device whenever he is inside this unit. In addition, a periodic maintenance program should be established for the exhaust ventilation system attached to this unit in order to insure that it is operated at maximum efficiency.

Tables of dust concentrations, particle size data and free silica content of dust follow.

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 1

Dust Concentrations

Westinghouse Electric Corporation
Steam Division
Lester, Pennsylvania

Location	Dust * (millions of particles per cubic foot of air)	Remarks
Sand blasting area "U" building	1.0	Vicinity of sand blasting room, before blasting
	0.8 0.8	Vicinity of sand blasting room, feeding of unit with sand
	1.9	Vicinity of sand blasting room, during blasting
	9.1	Inside sand blasting room, immediately following blasting
	6.2	Vicinity of sand blasting room, after blasting, door to unit was ajar.

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

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PA 11/11/64

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PA 11/11/64

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 2

Particle Size Data

Westinghouse Electric Corporation
Steam Division
Lester, Pennsylvania

Location	Median particle size	Standard Deviation
Sand blasting area up building	0.47	1.40

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 3

Free Silica Content of Dust

Westinghouse Electric Corporation
Steam Division
Lester, Pennsylvania

Source of sample	Free silica (percent)
Sand blasting area "u" building	65

Survey by -

Paul J. Kennedy
Industrial Hygienist

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Report of Survey

Hastingshouse Electric Corporation
Steam Division
Lester, Pennsylvania

A survey was conducted on 30 December 1964 to re-evaluate employees' exposure to fluoride fume and to evaluate exposures to iron oxide fume and silica dust. The survey was made with the cooperation of Mr. Carl Morris, supervisor of accident prevention.

Detailed Findings

This plant is engaged in the manufacture of steam turbines. The survey was made in "B" building during welding and sand blasting operations.

Fluoride and Iron Oxide

The threshold limit values for fluoride and iron oxide fumes, based on exposure for an 8-hour working day, are 2.5 and 15 milligrams per cubic meter of air, respectively.

A previous survey to evaluate exposures to fluoride was conducted during the period 18 March 1961 to 25 April 1962. The results of that survey indicated that exposures to fluoride could exceed the threshold limit value when the welders were so positioned that welding fumes passed directly through their breathing zones and when welding was performed in confined spaces without exhaust ventilation.

Recommendations to reduce exposures in these instances were made in our letter and report of survey dated 19 July 1962. A description of the facilities and operations was also included in that report and will not be included here.

Membrane filters were utilized to collect samples of the work atmosphere for re-evaluation of fluoride exposures. In addition, aliquot portions of these samples

were used to determine airborne iron oxide concentrations.

Three sampling procedures were employed. Simultaneous samples were collected inside and outside employees' welding helmets, samples were collected in the general work area and individual employees were equipped with portable sampling devices. The latter procedure affords a means of obtaining an integrated sample which would be representative of the employee's average exposure.

Average fluoride and iron oxide concentrations were as follows:

Fluoride (milligrams per cubic meter of air)	Iron Oxide	Remarks
2.86	5.81	Outside helmet, no exhaust blower
1.38	4.07	Inside helmet, no exhaust blower
0.63	0.96	Outside helmet, exhaust blower
0.48	0.93	Inside helmet, exhaust blower
0.35	0.65	General work area

These findings indicate that exposures to fluoride and iron oxide fumes are less than their respective threshold limit values during welding both with and without the use of portable exhaust blowers. Exposures to these substances are considerably less, however, when the blowers are utilized.

It should also be noted from these findings that concentrations outside the welding helmet were generally higher than those found inside the helmet, especially when no exhaust blower was utilized.

At present, the company is planning to modify the general dilution ventilation system in this building in an effort to reduce smoke concentrations. Industrial hygiene personnel are available to discuss any questions that might arise with regard to this modification.

Dust

Atmospheric samples for determination of dust concentrations were collected in the sand blasting area and inside of this unit by means of sidget impingers. Distilled water was used as the collecting medium. Dust counts were made microscopically using a standardized light-field technique and the results are given in Table 3.

A particle size determination was made microscopically on an additional air sample collected with a membrane filter. The result (Table 4) indicates that the dust is respirable and capable of being retained in the lungs.

A sample of settled airborne dust was collected in the sand blasting area. This sample was analyzed for free silica content and the result is presented in Table 5. The threshold limit value for dust, based on exposure for an 8-hour working day, is determined [from this datum] by the following formula: Threshold limit value, in millions of particles per cubic foot of air = $\frac{250}{\% \text{ free silica}} \times 15$

The free silica content of settled airborne dust in the sand blasting area was 50 percent. The threshold limit value for dust containing this amount of free silica is 4.5 million particles per cubic foot of air (mppcf).

Dust concentrations in the general work area during sand blasting ranged from 0.5 to 4.0 mppcf. This indicates that employees' exposure to dust in this area is less than the threshold limit value.

Dust concentrations in two samples collected in the vicinity of a sand chute on the larger sand blasting unit averaged 4.0 mppcf. Visual observations indicated that the free fall of sand from this chute was a major source of contamination of the work area. This sand chute should be enclosed.

Accumulations of sand were noted throughout the sand blasting area. This area should be cleaned and a periodic housekeeping program established to prevent these accumulations from being an ever-present source of contamination. Cleaning should be performed by wet or vacuum methods.

Maintenance employees periodically empty the bag house attached to the sand blasting units. The dust concentration in the vicinity of this operation was 7.4 mppcf. Since this operation involves sporadic exposures to high dust concentrations, maintenance employees engaged in work on the bag house should be required to wear respirators approved by the United States Bureau of Mines for protection against pneumoconiosis-producing dust.

Tables of fluoride, iron oxide and dust concentrations, particle size data and free silica content of dust follow.

Handwritten notes and signatures are present at the bottom of the page, including the name "B. J. ...".

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 3

Dust Concentrations

Westinghouse Electric Corporation
Steam Division
Lester, Pennsylvania

Location	Dust * (millions of particles per cubic foot of air)	Remarks
Sand blasting area "B" building	0.5	General air in vicinity of sand blasting unit
	4.0 3.9	General air in vicinity of sand chute
	1.7 1.3	General air in sand blasting booth following blasting
	7.4	General air during shakeout of bag collectors

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

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 4

Particle Size Data

Heatinghouse Electric Corporation
Steam Division
Lester, Pennsylvania

Location	Median particle size (microns)	Standard deviation
Sand blasting area "B" building	0.47	1.63

Commonwealth of Pennsylvania
Department of Health
DIVISION OF OCCUPATIONAL HEALTH

Table 5

Free Silica Content of Dust

Westinghouse Electric Corporation
Steel Division
Lewistown, Pennsylvania

Source of sample	Free silica (percent)
Sand blasting area eye building	80

Survey by -

Leon F. Goshorn
Regional Industrial Hygienist

William Christak
Paul Kennedy
Gerald Kussnerick
Industrial Hygienists

100-111-1-100000
64

2-303

BUREAU OF INFO SERVICES

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RECEIVED

REGION: VII
 PROB. MFG. OR SERVICE: Steam turbine
 DATE: 3/16/65
 PLANT: WESTINGHOUSE ELECTRIC CORPORATION

DEPARTMENT OF HEALTH
 OCCUPATIONAL HEALTH

FIELD ACTIVITY REPORT

EMPLOYEE: MALE
 FEMALE: TOTAL

ADDRESS: LESTER, PENNSYLVANIA

PERSON INTERVIEWED: Mr. Carl Morris TITLE: Supervisor of accident prevention
 PURPOSE: INVEST, SURVEY, INSPECT, PRELIM, F.U., CONF, VISIT
 REASON: SELF-INIT, C.S. REP, COMPL, REQUEST, SOURCE: Mr. Carl Morris

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHED		
		WRITTEN - VERBAL		YES	NO	IN PROG.
Silica - B building	2	1. Keep door to sand blasting unit closed				
Iron oxide and fluoride B bldg.	34	2. Require operator to wear approved respiratory protection				
Silica B bldg.	4	3. Periodic maintenance program of Chelsea blowers. (over)				
		4. Instruct employees in proper operation				

SAMPLES COLLECTED: 16 dust, 34 fluoride, 34 iron oxide, 4 silica TOTAL: 88

ANAL. MADE: 16 dust, 34 fluoride, 34 iron oxide, 4 silica TOTAL: 88

MEDICAL: C.S. REPORTED, NO. & KIND

REMARKS: Punch card and folder on file. A survey for dust, iron oxide and fluoride was conducted at this plant on 12/30/65. (over)

PUNCH CARD: ☒ YES ☐ NO FOLDER: ☒ YES ☐ NO BY: Paul Kennedy CCM

Mr. Morris requested a separate report for the dust survey conducted in the "B" building. Recommendations Nos. 1, 2 and 3 are made in that report. The remainder of the recommendations are in the survey report for the "B" building.

Recommendations (Continued):

5. Maintenance program for Chelsea blowers.
6. Enclose sand chute.
7. Housekeeping program
8. Wear respiratory protection during emptying of bag house.
9. Periodic maintenance program for sand blasting rooms.

PA STATE DEPT
 300 N. 3rd St.
 PA 15101

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
OCCUPATIONAL HEALTH

SAMPLE AND LABORATORY REPORT

REGION VII

RECEIVED
JUN 19 1964

DATE SUBMITTED 1-11-83

姓名: 王 强 学号: 123456789

NAME OF COMPANY

●●●●●●●●●●

Westinghouse Electric Co.

Letter Pa.

PRODUCT MANUFACTURED
Turkmen

MASSACHUSETTS
Trust - Bulk Sample

АДДАРАГАТ

Paul Kennedy

COLLEGE OF THE SACS

ANALYSIS DESIRED
\$ 1.00 \$ 1.50

SUBSTANCES LIKELY TO INTERFERE AND LIKELY TO BE PRESENT

CERKBY

All samples should have very high free silica contents

[illegible]

The over fifty has been a page of action and decision by our members. It has been a year that has seen the passing of the last the for library that planned and executed the immense 10th month of 1923.

The over fifty has been a page of action and decision by our members. It has been a year that has seen the passing of the last the for library that planned and executed the immense 10th month of 1923.

With the passing of Mr. H. H. Wilson, gone out of office, retired and married, 35 years of well-earned hardships and a program of frequent business interruptions interrupted by one company or by one Washington Company director any other single plant. He was not here with the future public but it can't be any worse.

There certainly has been a new level of community harm. The red-tinted wall. This is a worst production in interviews that serious people are of off. Then the company attempts to get what people including education people to take on the clock.

has led to a realization of the prevention of substance problems in this year. It also led to another realization to protect parents and teenagers alike. It brought about the disapproval of many parents and teenagers alike. It has been a year of many problems.

This has also been the year when information has come to the Idaho plant, that some machinery at the work-head of Lake Mary had been for some time added there at Labor Grade 8. Through discussions it later went to Labor Grade 3.

installed on was the eight station machine in X building. A teacher has a very different word taking the place of seven or eight rolling machines or in other words replacing seven men. A fifth station is the operator who keeps inserting blades in fixtures and a finished blade comes out every seven minutes. A sixth teacher is now operating the machine on each shift. The operators replaced were labor crew 7, in both manufacturing. One side entry machine was set up. Two labor crews in one case this machine but again the cutting time has been drastically cut up.

new tape consisted of all various, vertical section mills, thread mills, thread grinders and many others have been introduced into the shop, all increasing production and all with classification systems. The workers must learn controls all over again and new training techniques. But the company rarely moves on giving a sense of pride and continually attempts to change the work environment.

COSE 5215

At the base of the company's long-term search into the military, however, the financial picture and its vacation benefits is starkly different. For the millions of soldiers, during a deployment they don't have pay, military pay and vacation pay.

However, there has been no encouraging feature since the return of Mr. Williams. There has been more willingness to do business with them before they collapsed. There is a less class-conscious attitude on the part of the company which tends to decrease

have been between male graduates and women since the first year. Some were brought in a successful competition and were paid. All of us are really enough to know that Westinghouse is the first philanthropic organization. By the time however in the year in which they lost with more farmers from their house on those whom they employ and attempts to give proper to the students in their organization.

**IMPORTANT
NOTICE**

President
 Business Representative
 General Committee (2)
 Vice President
 Financial Secretary
 Recording Secretary
 Treasurer (1)
 Sergeant-at-Arms (2)
 Honorary positions, also
 possible at the union office,
 require 25 signatures by mem-
 bers in good standing.
 ELECTION DATE:
 JANUARY 8, 1965

የግልጽ ጥራት ለማረጋገጥ የሚያስፈልጉትን ምርመራዎች ያድርጉ፡፡

At present, the only way to get the information is to go to the library and look at the books. The only way to get the information is to go to the library and look at the books.

The attorney for the local hospital association said the committee had approved the plan and would be asked to approve it at a meeting at 4:30 p.m. on Tuesday.

The cabin's located 197' in diameter and is ready for disintegration.

There are no other places around here where you can find a good place to eat. The only place where you can find a good place to eat is here.

အိမ်ထောင်ရေးနှင့် အသက်မွေးဝမ်းကြေးရေး
အဖွဲ့အစည်းများ၊ အသက်မွေးဝမ်းကြေးရေး
အဖွဲ့အစည်းများ၊ အသက်မွေးဝမ်းကြေးရေး

correspondence, has been an outstanding example of all workers in that area. It has not all gone without serious loss and, especially, for the workers and about those who have been and through the past 20 years, primary duty and interest in the workers.

[illegible]

Although world indifference to the environmental disaster threatening the health of the people working in the area was widespread when samples of the air were first analyzed by experts of the "Federal Research Center of Health," a group of youth aged 16-18 showed an interest in the disaster and its victims, as testified by statements set by the

[illegible]

the fact these buses, normally, stop, and the buses were sent down yesterday, equipped at substantial cost with seats and wheels.

These three men are taken to work together, and they did. After this incident the manager took it upon himself to withdraw the workers from the office of the two young men at once.

THE bandleader had the effect along with his management, in providing improved ways of directing the orchestra, applying the improvements, but because the workers which he had introduced any day now are so much working at about double the rate to the area who are equally needed by the big working world.

[illegible]

NOMINATIONS NOW OPEN FOR UNION OFFICES

MIN. 15001 REV. 11/64

REGION VII

PROG. MFG. OR SERVICE

Part-time

DATE 11/10/64 and 11/23/64

PLANT

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HEALTH

OCCUPATIONAL HEALTH

FIELD ACTIVITY REPORT

EMPLOYER

MALE

FEMALE

TOTAL

W. PECO FURNACE ELECTRIC CORPORATION

ADDRESS

Lester, Pennsylvania

PERSON INTERVIEWED Mr. Carl Morris

TITLE Supervisor, Accident Prevention

PURPOSE: INVEST.; SURVEY; INSPECT.; PRELIM. P.M.; CONF.; VISIT; AN

REASON: SELF-INT.; O.D. REP.; COMPL.; REQUEST; SOURCE

C. MORRIS

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS WRITTEN - VERBAL	ACCOMPLISHED		
			YES	NO	IN PROG.
Clear dust		1. Request approval for air resircula- tion system in H E Bldg.			

SAMPLES COLLECTED

TOTAL

DETERM. MADE

TOTAL

MEDICAL

O.S. REPORTED, NO. & KIND

REMARKS: Yelder and punch ward on file. Requested to give appraisal of health hazard associated with abrasive (glass beads) blast room in H. E. Bldg.

GORMAN

(over)

Stahl Steam and Gas Turbine Department. Unit located at column G-24 "Vacu-Blast Room" by Vacu-Blast Company, Belmont, California. Room is 10' x 10' x 14'. Air enters room thru 6 grilles (18" x 18") in ceiling of room, down draft thru grates in floor to cyclone collector, fan, and bag house. Resirculation in colder weather. 70% of work from outside booth (8 slots with rubber closures 2" x 2" each, and 2 glove arrangements) and 30% of work inside room with supplied air respirators (Fangborn respirators, EM 1915 and H B A, H M 1926). ²³ Fan rated at 7000 cfm. "non-contaminated" area. See letter of 11/23/64 for additional details. Plant visited on 11/10/64. Management and union representatives present at time of visit. Hazards of abrasive blasting discussed with union representatives.

NH-1500a REV. 10/63

REGION VII

PROG. MFD. OR SERVICE _____

DATE 6/19/64

PLANT _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
OCCUPATIONAL HEALTH

FIELD ACTIVITY REPORT

EMPLOYEE
NAME _____
SEX _____
TOTAL _____

W Westinghouse Electric Co. Lester, Pa.

PERSON INTERVIEWED Tri-County Hospital Springfield

PURPOSE: INVEST; SURVEY; INSPECT; PRELIM; F.M.; CONF; VISIT

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

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHED		
		WRITTEN	VERBAL	YES	NO	IN PROG.
William B. Ogborn who had been a welder in the above company and died						
allegedly from "welder's lung" at the Tri-County Hospital, Springfield						

SAMPLES COLLECTED _____ TOTAL _____

DETERMS MADE _____ TOTAL _____

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

REMARKS Shortly before Dr. Dattoli left the Division he requested me to
investigate the case of William B. Ogborn.

(OVER) Shiro Tanaka, M.D.
Industrial Hygiene Physician

PUNCH CARD ☐ YES ☐ NO COLOR ☐ YES ☐ NO

In the hospital record it was indicated that this man had worked as a welder for a long time in the Westinghouse Electric Company, Lester, Pennsylvania.

In reviewing the records of six hospitalizations, the first in July 1961 and the last ended on September 30, 1964 with his death, I conclude that the cause of death was multiple myeloma, a fatal neoplastic disease of the bone. There was no indication that this man suffered from an occupational disease. An interview with Dr. Levin, pathologist at the Metropolitan Hospital, Philadelphia who conducted the autopsy, confirmed this conclusion. Therefore, no further investigation is indicated on this case.

COMMONWEALTH OF PENNSYLVANIA

October 24, 1963

SUBJECT: William R. Osborn - Deceased
421 Sutton Avenue
Folsom

TO: File

FROM: John A. Dattoli, M.D., Chief
Plant Health Services Section

Mr. Donald E. Getz, Chief, Data Handling Section of the Division of Data Processing, Bureau of Administration and Management, brought up the attached death certificate, and since they could not code welders lung as the cause of death, Dr. W. Schwartz, owner of Tri-County Hospital, Springfield, Pennsylvania, telephone #544-2000, was contacted and he stated the autopsy showed microlithiasis. However, the microscopic sections has not been processed as yet; once these are done he may submit an amended or corrected certificate of death.

He suggested that I contact Dr. McGowan of Collingdale, telephone # Ludlow 6-1919 who was the individual's private physician for further information.

JAD:dk

REC'D. CERT. ON 10-1-63
BURIAL PERMIT ISSUED
JOHN G. DAVIS, 23 230

3004-6-62

73-1-63

4341
6cc

DEPARTMENT OF HEALTH
VITAL STATISTICS
CERTIFICATE OF DEATH

1. DEATH
a. County Delaware City or town Springfield
b. Date of death Oct 3, 1963
c. If death did not occur in city or town, give name of township (Do not use R. D. or Post Office)
d. Full name of Hospital or Institution (If not in hospital, give street address)
Tri-County Hospital

2. DECEASED
a. Name of deceased William B. McLeod
b. Sex M
c. Date of birth 10/20/1913
d. Place of birth Delaware
e. Social Security No. 197-01-9615
f. Race W
g. Marital status Married
h. Date of marriage 10/20/1913
i. Age at death 50
j. Date of death 10/3/1963
k. Cause of death (See instructions on back of this form)
Coronary Heart Failure
l. Immediate cause (See instructions on back of this form)
Myocardial Infarction
m. Other significant conditions (See instructions on back of this form)
Arteriosclerosis

3. ACCIDENT
a. Date of accident Oct 3, 1963
b. Place of accident (e.g., home, street, etc.)
Home
c. Name of driver or operator of vehicle
William B. McLeod
d. Name of passenger or other person in vehicle
None
e. Name of driver or operator of vehicle
William B. McLeod
f. Name of passenger or other person in vehicle
None
g. Name of driver or operator of vehicle
William B. McLeod
h. Name of passenger or other person in vehicle
None
i. Name of driver or operator of vehicle
William B. McLeod
j. Name of passenger or other person in vehicle
None
k. Name of driver or operator of vehicle
William B. McLeod
l. Name of passenger or other person in vehicle
None
m. Name of driver or operator of vehicle
William B. McLeod
n. Name of passenger or other person in vehicle
None
o. Name of driver or operator of vehicle
William B. McLeod
p. Name of passenger or other person in vehicle
None
q. Name of driver or operator of vehicle
William B. McLeod
r. Name of passenger or other person in vehicle
None
s. Name of driver or operator of vehicle
William B. McLeod
t. Name of passenger or other person in vehicle
None
u. Name of driver or operator of vehicle
William B. McLeod
v. Name of passenger or other person in vehicle
None
w. Name of driver or operator of vehicle
William B. McLeod
x. Name of passenger or other person in vehicle
None
y. Name of driver or operator of vehicle
William B. McLeod
z. Name of passenger or other person in vehicle
None

4. SIGNATURE
a. Signature of declarant W. B. McLeod
b. Signature of registrar W. B. McLeod
c. Signature of physician W. B. McLeod
d. Signature of funeral director W. B. McLeod
e. Signature of medical examiner W. B. McLeod
f. Signature of coroner W. B. McLeod
g. Signature of justice of the peace W. B. McLeod
h. Signature of notary public W. B. McLeod
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x. Signature of other official W. B. McLeod
y. Signature of other official W. B. McLeod
z. Signature of other official W. B. McLeod

5. DATE
a. Date of death Oct 3, 1963
b. Date of registration Oct 3, 1963
c. Date of filing Oct 3, 1963
d. Date of certification Oct 3, 1963
e. Date of burial Oct 3, 1963
f. Date of interment Oct 3, 1963
g. Date of cremation Oct 3, 1963
h. Date of other disposition Oct 3, 1963
i. Date of other disposition Oct 3, 1963
j. Date of other disposition Oct 3, 1963
k. Date of other disposition Oct 3, 1963
l. Date of other disposition Oct 3, 1963
m. Date of other disposition Oct 3, 1963
n. Date of other disposition Oct 3, 1963
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v. Date of other disposition Oct 3, 1963
w. Date of other disposition Oct 3, 1963
x. Date of other disposition Oct 3, 1963
y. Date of other disposition Oct 3, 1963
z. Date of other disposition Oct 3, 1963

6. OTHER INFORMATION
a. Name of declarant W. B. McLeod
b. Name of registrar W. B. McLeod
c. Name of physician W. B. McLeod
d. Name of funeral director W. B. McLeod
e. Name of medical examiner W. B. McLeod
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v. Name of other official W. B. McLeod
w. Name of other official W. B. McLeod
x. Name of other official W. B. McLeod
y. Name of other official W. B. McLeod
z. Name of other official W. B. McLeod

REV. 10-65

REGION VII

PROD. MFG. OR SERVICE

Steam turbines

DATE 2/26/65

PLANT

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF HEALTH

OCCUPATIONAL HEALTH

FIELD ACTIVITY REPORT

EMPLOYEES

MALE

FEMALE

TOTAL 5800

Westinghouse Electric Company

Lester

PERSON INTERVIEWED Carl E. Morris

Safety Superintendent

PURPOSE: INVEST.; SURVEY; INSPECT.; PRELIM. T.O.; CONF.; VISIT; AP.
REASON: SELF-INIT.; O.D. REP.; COMPL.; REQUEST; SOURCE

SPECIFIC HAZARD OR CONDITION	WORKERS EXPOSED	RECOMMENDATIONS		ACCOMPLISHMENT		
		WRITTEN - VERBAL		YES	NO	IN PROG.
Lead oxide fumes	3	1. Discontinue eating & smoking		x		
Mercury vapor	2	in rabbit shop				
Housekeeping	5	2. Clean up spilled mercury				x
Labeling	5000	3. Improve housekeeping in base- ment of old building	x			
		4. Label all containers of solvents				x

SAMPLES COLLECTED None

TOTAL

DETERM. MADE Mercury vapor (70)

TOTAL

70

MEDICAL None

O.D. REPORTED, NO. & WHEN

P.C. & folder on file

REMARKS Visit was made to determine compliance with recommendations made

Szabo-Gonschor

2-

during a plant inspection survey for mercury vapor also made. Mercury has been cleaned up following recommendation; however, an effective housekeeping program was not established and spilled mercury was present in various areas. Determinations made with Mercury Vapor Meter indicated concentrations in excess of TLV (report of survey to follow). Recommendations will be included in report of survey.

Mr. Morris is in the process of establishing a labeling program. Mr. Morris going to submit details of the program (along with sample labels) to the Regional Office. Copies will be forwarded to the Central Office when they are received.

389-2	B-740	perchloric & nitric acid tank	3.10	0.5	N.D.
390-2	B-741	sulfuric acid tank	2.80	N.D.	(H ₂ SO ₄)
391-2	B-742	HCl & nitric acid tank	2.90	N.D.	N.D.
392-2	B-743	HCl & nitric acid tank	3.00	12.1	N.D.
393-2	B-745	BLANK	2.2	—	—
394-2	B-746	HCl and nitric acid tank	24.5	23.1	N.D.
395-2	B-746	HCl and nitric acid tank	23.5	3.1	N.D.
396-2	B-747	sulfuric acid tank	30.0	N.D.	(H ₂ SO ₄)
397-2	B-748	HCl and nitric acid tank	30.20	16.5	N.D.
398-2	B-749	—	0	—	—

REPORT OF ANALYSIS

Analysis - delay caused by need for special chemical for H₂SO₄ det'n. Chemical just recently received.

Results previously reported via phone.

J. Mills, S.R. Watts
Received - (2-14-63) Typed - 2-14-63

12-11-62/2-13-63

EN

CHEMIST

189750

Lead pot Lead pot for heat heating of tools	lead oxide fumes, heat CO, CO ₂ gas, dermatitis heat, CO, CO ₂ gas lead oxide fumes dermatitis	local exhaust personal hygiene charcoal surface general ventilation personal hygiene
Erecting & testing Jacket shop		
sheering rolling of jackets punching	steel dust noise dermatitis	general ventilation personal hygiene
mixing asbestos mixing ceramic fibre putting asbestos & ceramic fibre mixture on jackets	asbestos dust ceramic fibre dust asbestos and ceramic fibre dust	local exhaust local exhaust local exhaust and general ventilation
making asbestos rolls sewing asbestos blankets cutting and sewing asbestos sheets	asbestos dust asbestos dust asbestos dust	general ventilation general ventilation general ventilation, Resp.
assembly of large turbines testing turbines welding electric acetylene Meliarc	dermatitis dermatitis iron oxide fumes, ozone U.V. I.R. heat, smoke oxides of nitrogen	personal hygiene personal hygiene Welder's helmet general ventilation
chipping grinding painting	steel dust, noise silicon carbide dust dermatitis red lead paint pigment mist silicon vapor & mist dermatitis oil mist, dermatitis	general ventilation local ventilation personal hygiene general ventilation respirators personal hygiene general ventilation personal hygiene local exhaust personal hygiene
pump testing pit hot soda dip tank	caustic soda mist, vapor dermatitis	general ventilation personal hygiene
soldering 150-50 60-40 (95-5)	lead and tin oxide fumes hydrochloric acid mist, HCL gas, dermatitis	general ventilation personal hygiene
Fabricating and Welding Department.		
Machining: lathes drill press boring	steel dust cutting oil mist dermatitis	general ventilation personal hygiene
milling	steel dust, cutting oil mist, dermatitis	general ventilation personal hygiene
Wheelabrator	steel dust noise	enclosed operation
shot blasting	steel dust, noise	enclosed op. local exhaust air line resp.
chipping grinding	steel dust, noise dermatitis	general ventilation & local exhaust personal hygiene

cleaning patts	mineral spirits vapor & mist	respirators, gen. Vent.
painting	dermatitis	personal hygiene
sand blasting (3)	paint piquents mist	respirators
multiple burning tables(6)	thinner vapor & mist	general ventilation
Welding: electric)	steel & silica dust	enclosed op. local exh.
acetylene	noise	air lined respirators
heliarc	iron oxide fumes	general ventilation
submerged arc	heat, CO, CO ₂ gas	
dual shield (CO ₂)	iron oxide fumes, etc., gas	portable exhaust
oil & pump testing unit	U.V.I.R., heat, ozone	welder's helmet
gas 1250-1600°F	oxides of nitrogen	general ventilation
Furnace relining	fluorides, smoke	
Balconies division (works engineering)	oil mist	general ventilation
repair gear castings	dermatitis	personal hygiene
Lathes)	heat, CO, CO ₂ gas	enclosed operation
drill presses(	dermatitis	personal hygiene
boring mills	silica dust	respirators, gen. vent.
sand blasting (wet)	dermatitis	personal hygiene
grinding	steel dust	
polishing	cutting oil mist	general ventilation
chipping	noise	
Welding:	dermatitis	personal hygiene
Electric	iron oxide fumes	general ventilation
Acetylene	U.V. I. R. ozone	portable local exhaust
Heliarc	heat, CO, CO ₂ gas	welder's helmet
silicon	fluorides, smoke	
submerged arc	oxides of nitrogen	
Detailed machinery	dermatitis	personal hygiene
cleaning tank	cutting oil mist, steel dust	general ventilation
(caustic soda)	caustic soda mist	general ventilation
Dye coating	dermatitis	personal hygiene
lead soldering & brazing	dye pigment mist	Local exhaust
Kolene tank	methanol vapor & mist	general ventilation
gas heat d 900°F	lead & tin oxide fumes	general ventilation
	HCl gas, hydrochloric acid mist	
	caustic soda mist	local exhaust &
	dermatitis, heat, CO, CO ₂ gas	personal hygiene

Rinse tank	dermatitis	personal hygiene
Rabbit chop.		
Lead melting pot	lead oxide fumes	gen. vent. thermostat
6300° F gas heat	CO, CO ₂ gas heat, dermatitis	personal hygiene
Rabbit pot (2)	lead, tin, copper, antimony	Gen. vent., thermostat
	oxide fumes, CO, CO ₂ gas	
750° F gas heat	heat, dermatitis	Personal hygiene
Pouring	lead, tin, copper, antimony,	
	oxide fumes, heat, dermatitis	General ventilation
Coating in centrifugal machine	dermatitis, heat, lead,	Personal hygiene
	tin, copper, antimony,	
	oxide fumes	Enclosed operation
Grinding of castings	dermatitis, noise, heat, tin,	
	antimony, copper alloy, steel	
	dust	Local exhaust

SMALL TURBINE DIVISION

Lathes	steel dust, cutting oil mist,	General ventilation
	dermatitis	Personal hygiene
Drill presses	steel dust, cutting oil mist,	General ventilation
	dermatitis	Personal hygiene
Boring mills		
Horizontal)	steel dust, cutting oil mist,	General ventilation
Vertical)	dermatitis	Personal hygiene
Planer	Steel dust, noise,	General ventilation
	dermatitis	Personal hygiene
Welding		
Electric	Iron oxide fumes	Welder's helmet
Acetylene	Ozone, U.V., I.R., CO, CO ₂ gas	General and portable
Helarc	heat, fluorides, smoke,	exhaust ventilation,
Submerged arc	oxides of nitrogen	
Chipping	Steel dust, noise,	General ventilation
	dermatitis	Personal hygiene
Grinding	Steel & silicon carbide dust	Local exhaust,
	dermatitis, noise	Personal hygiene
Wax coating	wax mist, heat,	Canopy hood
150° F electric	dermatitis	Personal hygiene
Dip tank	Oakite 77 mist	General ventilation
(steam heated)	dermatitis	Personal hygiene
Degreasing	mineral spirits vapor & mist	General ventilation
Cleaning parts	dermatitis	Personal hygiene
	kerosene vapor & mist	General ventilation
Portable sand blasting units	steel & silica dust	Enclosed, local
	noise	exhaust, porthole to
shot blasting	steel dust	work
	noise	Enclosed operation
Burning tables	iron oxide fumes, heat,	air line respirators
	CO, CO ₂ gas, smoke	General ventilation

WESTINGHOUSE ELECTRIC CORPORATION

Electric furnace (heat treated) 1000° F	heat, iron oxide fumes, dermatitis	Enclosed operation
Kerosene dip tank	Kerosene vapor & mist dermatitis	Personal hygiene General ventilation
Spray painting	Paint pigments mists Thinner vapor & mist	Personal hygiene Locally exhausted Spray booth

Small turbine erecting and testing: See erecting and testing described previously

BLADE SHOP

Tool grinding	Steel & silicon carbide dust dermatitis, noise	Local exhaust vent. Personal hygiene
Drill press, lathes, boring mill, grinding, chipping, sand blasting (portable)	Steel dust, cutting oil mist, dermatitis silica dust noise	General ventilation Personal hygiene
Lift fork trucks (electric & gasoline)	CO, CO2 gas, smoke, noise	Enclosed, local exhaust
Polishing	Steel dust Dermatitis	General ventilation
Brazing	Lead & tin fumes heat, dermatitis	Local exhaust vent. Personal hygiene
Dip Tank	"Vantrol Dip" mist Kerosene vapor & mist dermatitis	General ventilation Personal hygiene General ventilation
Welding Electric Hallarc Acetylene Submerged arc	Iron oxide fumes U.V., I.R., ozone, fluorides, heat, smoke, CO, CO2 gas Oxides of Nitrogen	Personal hygiene Welder's helmet General and portable local exhaust ventilation
Forging Furnaces (1600° F)	Iron oxide fumes, steel dust, Heat, smoke, CO, CO2 gas mist dermatitis	General ventilation
Rolling mill	Steel dust dermatitis, noise	Personal hygiene General ventilation
Heating ovens (900-1000-2350° F)	CO, CO2 gas, smoke heat, dermatitis	Personal hygiene General ventilation
Oil quenching	CO, CO2 gas heat, smoke, oil mist	Personal hygiene General ventilation
Polishing Buffing Grinding	Steel & Silicon carbide dust, noise dermatitis	Local exhaust vent. Personal hygiene
Annealing furnaces 1600° F for small 11-1300° F for large	CO, CO2 gas, heat smoke, dermatitis	Local exhaust Enclosed - personal hygiene
Cleaning tanks (caustic soda)	Caustic soda mist dermatitis	Local exhaust Personal hygiene

Multiple burning table	iron oxide fumes, CO, CO2 gas, heat, smoke	General ventilation
Cut-off saw	Steel dust, cutting oil mist, dermatitis	General ventilation Personal hygiene
Grit blasting	Steel dust Noise	Enclosed, local exhaust, resp.
Heat treating and shrinking (1300° F) (gas heated)	CO, CO2 gas, smoke, heat dermatitis	Local exhaust Enclosed operation
Sand blasting Sand	Silica & steel dust noise	Personal hygiene Enclosed op., local exhaust, airline resp.
Welding: Electric Acetylene Mellarc Submerged arc Dual shield	Iron oxide fumes U.V., I.R., ozone, heat, smoke, fluorides, CO, CO2 gas, oxides of nitrogen	General and portable local exhaust ventilation welder's helmet
High temperature treating (2000° F) (Gas heated) Assembly	iron oxide fumes heat, smoke, CO, CO2 gas dermatitis Dermatitis	Enclosed operation Personal hygiene Personal hygiene

WELDING ENGINEER'S TESTING LABORATORY

Welding Electric Mellarc Acetylene Dual shield Submerged arc	Iron oxide fumes, heat, U.V., Ozone, I.R., ozone, smoke, CO, CO2 gas, fluorides, oxides of nitrogen	Welder's helmet General and flexible hose exhaust ventilation
Chipping Grinding Polishing	Steel dust, noise, silicon carbide dust dermatitis	General and local exhaust ventilation, personal hygiene
Coffee pot Electrode treating furnace (electric 600° F)	Heat, CO, CO2 gas, caffeine Heat Dermatitis	4 cups a day General ventilation Personal hygiene

BLADE AND TOOL PILOT LINE

Sellite stripping	Dermatitis Dentrured ethyl alcohol vapor and mist	Personal hygiene General ventilation
Lathe Drill press Boring mill Welding Electric, acetylene Mellarc	steel dust, noise cutting oil mist dermatitis Iron oxide fumes, heat, ozone, U.V., I.R., smoke, CO, CO2 gas, fluorides, Oxides of nitrogen Steel dust, noise	General ventilation Personal hygiene General and flexible hose local ventilation Welder's helmet
Chipping		General ventilation 98 db

Grinding

Metal cleaning

Small furnace
(gas 600° F)

Steel dust, noise,
dermatitis, silicon carbide dust
Kerosene vapor & mist
dermatitis
Heat, CO, CO2 gas
dermatitis

Local exhaust,
Personal hygiene
General ventilation
Personal hygiene
Enclosed op., General
ventilation,
Personal hygiene

WOOD SHOP AND CARPENTER SHOP

Saw, planer, joiner
Sander
Drill press

Wood dust, noise
Wood, silicon carbide dust
Wood dust
noise

Local exhaust ventilation
Local exhaust vent.
Local exhaust

Paint booth

paint pigments mist,
thinner vapor & mist
dermatitis

Local exhaust vent.

Paint mixing

Paint pigments mist
thinner vapor & mist, dermatitis
Pipe Shop

Personal hygiene
General ventilation

Metal saw, drill
press, lathe
Threader

Steel dust, cutting oil mist,
dermatitis
Steel dust
cutting oil mist

General ventilation
Personal hygiene
General ventilation

Welding
Electric
Acetylene
Mallard

Iron oxide fumes, CO, CO2 gas,
U.V., I.R., ozone, heat,
oxides of nitrogen, smoke

Welder's helmet,
General & flexible hose,
local exhaust vent.

Metal cleaning

Mineral spirits vapor & mist
dermatitis

Gen. vent., respirators,
Personal hygiene
General ventilation
sporadic operation

Soldering
(60-40, 50-50,
95-5)

Lead & tin oxide fumes,
HCl gas, HCl acid mist,

B plant powerhouse
(Gas fired)

Noise, CO, CO2 gas,
dermatitis, heat, steam

91-92 db
Enclosed

GEAR AND TRANSPORTATION MAINTENANCE

Battery charging

H2SO4 mist
SO2-SO3 gas, dermatitis
Dun-Rite Rust Remover
vapor & mist

General ventilation
Personal hygiene
General ventilation

Rust removing

Steam cleaning

Heat, steam
dermatitis

General ventilation
Personal hygiene

Drill press

lathe, boring mill

Steel dust, noise
cutting oil mist,
dermatitis

General ventilation
Sporadic operation

Metal parts cleaning

Trichloroethylene
vapor & mist, dermatitis

Personal hygiene
General ventilation
Personal hygiene

Spray painting

Paint pigment mist
Thinner vapor & mist

Respirators
General ventilation

Repair work

Dermatitis

Personal hygiene

Experimental welding:	iron oxide fumes, U.V., I.R., heat, ozone, CO., CO2 gas, oxides of N2	General & local exhaust ventilation, welder's helmet
Chemical testing laboratory	dermatitis solvents vapor & mist	Personal hygiene Lab. hoods
Physical testing laboratory		
(Metallurgical Lab.)	Steel dust Dermatitis	General ventilation Personal hygiene
Tank cleaning:	Solvents vapor Dermatitis	Airline respirators Personal hygiene
PHOTOGRAPHIC DEPARTMENT	(G. Building)	
Blue Print	Ammonia gas Dermatitis	Local exhaust Personal hygiene
Offset printing	A & W duplicating fluid (methanol) Vapor & mist, dermatitis	Enclosed Personal hygiene
Circular saw	PATTERN SHOP	
Band saw	Wood dust, noise	Local exhaust ventilation
Planer, joiner, sander	Wood dust, noise, silicon carbide dust	Local exhaust ventilation
Spray painting	lacquer & enamel paint pigments mist thinner vapor & mist dermatitis	Local exhaust booth personal hygiene

WELDER'S TRAINING CENTER

Welding		
Electric	Iron oxide fumes, heat, U.V., I.R., CO, CO2 gas, ozone, oxides of nitrogen, argon	Flexible hose & local exhaust ventilation Welder's helmet
Helicarc		
Acetylene		
Submerged arc		
Dual shield		
Dripping	Steel, silicon carbide dust noise, dermatitis (104 db)	General ventilation Personal hygiene
Grinding		
Silver soldering	Silver, nickel, bismuth, oxide fumes, Handy flux mist	General ventilation
Heating oven electric 250° F	Heat, dermatitis	Gen. vent., personal hygiene

RESEARCH & DEVELOPMENT LABORATORY

Welding:		
Electric	Iron oxide fumes, U.V., I.R., heat, ozone, CO, CO2 gas, oxides of nitrogen	Welder's helmet, Flexible hose exhaust ventilation
Helicarc	Mercury vapor	General ventilation
Filling manometers		

Performance testing:
noise levels (103db)

General machine shop

Welding:

Electric

Acetylene

Oxyarc

Submerged arc

Dripping, grinding

lathe, drill press,

noise

dermatitis

Iron oxide fumes,

U.V., I.R., heat, ozone,

CO, CO₂ gas, oxides of

nitrogen

Ear muffs & helmet with

built in intercom system

Personal hygiene

Welder's helmet,

General & flexible hose

exhaust ventilation

Steel, silicon carbide dust, General ventilation
noise (102 db)

Steel dust, cutting oil mist, General ventilation
dermatitis Personal hygiene

EXPERIMENTAL LABORATORY

Degreaser

Cleaning recovered
mercury

Grinding

Metal saw

Testing room

Sodium nitrite tank

Spray painting

Spray cleaning

Servicing pressure
gauges

Welding: Electric

Acetylene

Oxyarc

Trichloroethylene vapor & mist Water jacket
dermatitis Personal hygiene

Mercury vapor & mist General ventilation

Steel, silicon carbide dust, General ventilation
noise (not in operation)

Steel dust, cutting oil mist, General ventilation
dermatitis Personal hygiene

Dermatitis Personal hygiene

Sodium nitrite mist General ventilation

Dermatitis Personal hygiene

Paints pigments mist Local exhaust booth

Thinner vapor & mist

Dermatitis Personal hygiene

Mercury vapor & mist General ventilation

Iron oxide fumes, U.V., General ventilation

I.R., Ozone, heat, CO, Welder's helmet

CO₂ gas, oxides of N₂

MEDICAL DEPARTMENT PERSONNEL

Physicians

John Seedor, M.D. Director

Frank Lipcius, M.C. Full time

Roman Ulane, M.D. Full time

Eli Pronchik (Optometrist) Part time

John Blizzard, M.D. Part time

Luis Patron, M.D. Relief

Nurses

Dorothy A. Davis, R.N. full time

Catherine McMullin, R.N. full time

Helen Huet, R.N. full time

Mary D. Getz, R.N. full time

Helen Heisler, R.N. Relief

Elizabeth Carr, R.N. Relief

Helena Gasparian, R.N., Relief

X-RAY TECHNICIAN

Dorothy Edwards, R.T. full time

REMARKSHeavy Machining

Manufacturing of large turbine parts takes place here. Cutting oil used include products from Texaco, Sun Oil, Sinclair, Atlantic, Mobil. A bacteria count on a special Vantrol soup mix revealed 3 million organisms per cc of oil. Degreasing done by spraying or brushing Alk-Tri (The Dow Chemical Company) Mineral Spirits or trichloroethylene on these large items and let it evaporate. Employees are supplied with BM approved respirators, gloves, and other protective clothing.

Chemical Cathridges: BM#2301

Airline: BM #1926

Salt bath furnaces contain Houghton heat treating salt "Liquid Heat ND". Classification on these baths are given on a separate sheet.

Gas fired lead pots for heat treating of tools are equipped with either canopy type hoods or with a coal topping. Employees exposed to lead are given periodic medical examinations.

Local exhaust ventilation systems are under the control of Works Engineering which get monthly check over. The numerous exhaust ventilation on grinders checked by the industrial hygienists kept a steady 800 cfm rate.

Labeling of containers was not carried out. Solvents were seen in many places in coke bottles, coffee cans, glasses, etc. An organized program of labeling and the use of approved containers will be carried out in the near future.

Balacoines: Under the direction of Works Engineering. Painting on smaller objects are done in spray booth, larger objects are painted on the work platform. New airless spray painting method developed by Works Engineering eliminate the mist problem. Paints used are all kinds (lacquer, enamel, etc.) from all major paint companies. Solvents toluol, xylol, mineral spirits, globe solvent "1609".

The Apex Alkali Cleaning tank equipped with slot exhaust ventilation -- capacity 400 cfm.

Kolane tank heated at 900° F used for surface treating. Controlled by local exhaust. Babbit shop was lead. All pots heated either by gas or electricity are controlled by thermostats at 650 or 750° F. Thermostats are periodically calibrated. The hot alloy poured centrifugally. Floor cleaned up at the end of every shift. Survey for lead will be done here in the near future.

ERECTING AND TESTING

Large turbine parts are assembled in the jacket shop and tested. A 94 db general area noise was measured at the time of inspection. Periodic noise measurements were made all through the plant. Noise levels are over the 85 db level in about 90% of the plant. This department has conducted a noise survey already at this plant. Company makes noise surveys on her

OWN, making efforts to establish a good noise control program. Pre-placement and periodic audiometric tests are given. Employees engaged in operations which produce noise levels over 105 db. are equipped with helmets with muffs and build in intercom system.

Fab and Weld Shop B. Building

Portable exhaust systems "octopus" available for all welding operations. Wheelabrator uses steel shots. Sound blasting room locally exhausted. Employees equipped with air line respirators. Some soldering done (60-40, 50-50, 95-5) using Handy Flux. Multiple burning tables are equipped with downdraft local exhaust ventilation system. General area noise measured: 92-94-96 db. At the end of the building hand blasting units are located. As a result of a survey conducted previously to evaluate employees' exposure to dust, the whole Pangborn dust collecting system has been moved outside. Mr. Harris requested a follow-up survey to evaluate the effectiveness of the control measures. At the same location a number of annealing furnaces are located. They are gas heated, temperature range 1200° F.-1600° F. Furnaces are aligned as needed by the company's own masonry group. Members of this group are included in the yearly chest X-ray examination program.

BLADE SHOP:

Blades for the turbines are made here. Previous noise survey conducted by this department revealed noise levels between 100-140 db.

Lindberg annealing furnaces are heated by gas at 1600° F. Caustic soda cleaning tank contains Apex Alkali Compound RPS. Cold saw cutting department is just what its name implies -- and noisy.

Sand blasting, punch presses, grinding wheels, silver soldering, and other hobbies performed by happy workers. It is noteworthy that all through the plant "Mobile horseshoe pitching stations" are visible where employees can relieve tension.

Salt baths similar to those on the separate sheet operating between 1650° F. - 2350° F. are enclosed and locally exhausted. The pipe pickling house utilizes sulfuric acid which is in long tanks or flown through the pipe with the aid of a "garden hose" type hose. The sodium room has large dip tanks for sodium hydride which is made by breaking down ammonia and bubbling it through both containing metallic sodium. Under right conditions the hydrogen forms the sodium hydride with the sodium. The flow of material goes from here to a rinse tank, a 10% hydrochloric acid dip tank at 160° F., a 10% solution of nitric acid dip tank, and a 10% solution of sulfuric acid dip tank with cuprodine make up powder in it. All tanks are at 160° F. Survey will be made here for mixed acid mist and various gases.

SMALL TURBINE DIVISION

Operations are identical to those of the large turbine division on a smaller scale. A dip tank contains OAKITE 77. General area noise 92 db. chipping 106 db.

REMARKS--

HEAT TRANSFER DEPARTMENT. U BUILDING

Noise at hand grinding 99 db. At metal saw 104 db. Chipping 120-128 db. Spray painting of red lead. Gas furnaces for heat treating and shrinking 1300° F.

Sand blasting.

Building also houses the high and low temperature testing labs, welding engineer's testing lab. Blade and Tool pilot line. Wood shop is in good condition. All wood working machinery equipped with local exhaust ventilation.

Pipe shop has unlabeled coke bottles containing solvents. General area noise 95db. The garage and transportation maintenance houses the company's two new Cadillac limousines.

Research and Development Laboratory and the experimental laboratory has the mercury problem. Large and numerous pressure gauges are filled at the site of installation with spilled mercury all over the floor. Survey will be made when most the spillage is cleaned up.

Hettinger

-14-

25

Furnace No.	Heating Method	MAX. TEMP	TYPE	Type of Mat'l Salt
1	GAS	1600°F		
2	"	1600°F		
3	"	"		
4	ELECTRIC	2000°F		
5	GAS	1600°F		
7	"	1200°-2400°F		
8	ELECTRIC	1800°F		
11	ELECTRODE	2400°F	SALT - BATH	N.D
12	"	"	" "	275
13	GAS	"		
14	ELECTRIC	1700°F		
3A	GAS	200°-2400°F		
4A	"	" "		
5A	ELECTRIC	1100°F	SALT - BATH	275
6A	GAS	1600°F		
7A	ELECTRODE	1900°F	SALT - BATH	N.D
8A	"	"	" "	275
1B	GAS	1600°-2400°F		
2A	"	" "		
3B	ELECTRODE	1300°F	SALT - BATH	800
4B	"	2250°F	" "	1550
5B	"	1650°F	" "	1145
8B	GAS	350°-1100°F	" "	
9B	ELECTRIC	1250°F		
12B	"	1850°F		
13B	"	"		
1C	GAS	1250°F		
2C	"	1750°F		

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF HEALTH
OCCUPATIONAL HEALTH

SAMPLE AND LABORATORY REPORT

REGION VII
DATE COLLECTED 5-3-63
DATE SUBMITTED 5-3-63
DATE REC'D IN LAB. 5-3-63

NAME OF COMPANY Westinghouse Electric Co. ADDRESS Lester
PRODUCT MANUFACTURED Steam Turbines MATERIAL SAMPLED APPARATUS
COLLECTED BY Gonsbor COLLECTION MEDIUM ANALYSIS DESIRED Free Silica

SUBSTANCES LIKELY TO INTERFERE AND LIKELY TO BE PRESENT

COMMENTS

PA ST
350 N. 1st St.
Ph. 1111

REGION SAMPLE NUMBER	L.A.B. SAMPLE NUMBER	SAMPLING LOCATION AND OPERATION	AIR VOLUME	LABORATORY RESULTS % Free Silica
*244-3	T-357	Elast unit	0	70%
*245-3	T-358	Screen 5 feet high	0	11%
*246-3	T-359	Window sill by #1 blast	0	70%
**247-3	T-360	Sand before use	0	90%+
**248-3	T-361	Window sill behind large blast	0	90%+

REPORT OF ANALYSIS

*Samples not sieved for analysis
Reported via phone 5-29-63

** Particles too large for normal technique - microscopy and HF reaction indicate quartz

ANALYSIS BY Donovan, Watts DATE 5-24-63 CHEMIST J.P. Smith
DATE REC'D. 5-31-63 DATE TYPED 6-3-63 DATE SUBMITTED TO REQUESTING AGENCY

can be made that these higher levels were due to the direction of the spray, which was toward this particular room. It could be presumed that, should this spray be directed toward the fabrication department in which there was personnel exposure, the resulting levels would be of such significance as to warrant some correction. For this reason, recommendation No. 1 was made.

This survey was performed under warm summer conditions. It is quite possible that an entirely different situation would present itself under winter conditions when doors and windows are closed. Therefore, another survey will be performed during cold weather to determine conditions existing at that time.

PA 5-1-60
330 North Street
PA 5-1-60

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