APPENDIX C SAMPLE RESPIRATORY QUESTIONNAIRE

Use the actual wording of each question. Put X in the appropriate space after each question. When in doubt, record "NO."

PREAMBLE: I am going to ask you some questions mainly about your chest. I should like you to answer 'YES' or 'NO' whenever possible.

		<u>YES</u>	<u>NO</u>	<u> N/A</u>
1.	Do you usually cough first thing in the morning or on getting up?			
	(Count a cough with first smoke or on first going out of doors. Exclude throat clearing or a single cough.)			
2.	Do you cough like this on most days for as much as three months each year?		_	
3.	Do you cough at work?			
4.	Do you usually bring up some phlegm from your chest first thing in the morning or on getting up?	· 	_	
	(Count phelgm with the first smoke or on first going out of doors. Exclude phelgm from the nose. Count swallowed phlegm.)			
5.	Do you bring up phlegm like this on most days for as much as three months each year?			

6.	In the past three years, have you had a period of (increased) cough and phlegm lasting 3 weeks or more?	
7.	Have you had more than one such period?	
8.	Does your chest ever feel tight or your breathing become difficult?	
9.	Do you get this apart from colds?	
	(If YES: specify (Interviewer to code) (a) With Exercise (b) At Work	
	(c) Any Other Time	
	If disabled from walking by skeletal or other physical disability put 'X' here.	
10.	Are you troubled by shortness of breath, when hurrying on the levels or walking up a slight hill? (If 'NO' omit questions 11 and 12)	
11.	Do you get short of breath walking with other people of your own age on level ground? (If 'NO' omit question 12)	
12.	Do you have to stop for breath when walking at your own pace on level ground?	
13.	Do you usually have a stuffy nose or catarrh at the back of your nose in the winter?	 -
14.	Do you have this in the summer? (If 'NO' to both questions 13 and 14, go to question 16)	
	Do you have this on most days for as much as three months each year?	

16.	During the past 3 years have you had any chest illness which has kept you off work or from your usual activities for as much as a week?	
17.	Did you bring up more phlegm than usual in any of these illnesses?	
18.	Have you had more than one illness with phlegm like this in the last 3 years?	
	HAVE YOU EVER HAD: (Give relevant details after each positive answer.)	
19.	An injury or operation affecting your chest?	
20.	Heart trouble?	
21.	Bronchitis?	
22.	Pneumonia?	
23.	Pleurisy?	
24.	Pulmonary Tuberculosis?	
25.	Bronchial Asthma?	
26.	Eczema?	
27.	Dermatitis?	
2 8.	Pneumoconiosis?	

25. Dyssinosis:	-
30. Other chest troubles?	-
31. Have you ever smoked?	-
32. Age when stopped years. Was this in the last month? If 'YES' to 31 and 32, fill in figures below:	
AMOUN'	T SMOKED
NOW	BEFORESTOPPING
Cigarettes/day (Average including weekends)	
Oz. tobacco/week (handrolled)	
Cigars/week (large)	
Cigars/week (small)	
Occupation (1st Interview Only)	
(Record on lines the years in which subject hof these industries, e.g., 1960-1963)	nas worked in any
<u>Y</u>	ES NO
33. Have you ever worked in a dusty job?	
34. In a coal mine	
35. In any other mine?	

36 .	In a quarry?		
37.	In a foundry?		
38.	In a pottery?		
39 .	In a cotton, flax or hemp mill?		
4 0.	With asbestos?		
41	In any other dusty job? If 'YES', specify		
42.	Have you ever been exposed regularly to irritating gas or chemical fumes? If 'YES', give details of nature and duration		
Оссі	upation (Follow-Up only)		
43.	What is your present job?		
44.	44. How long have you been doing it?		
45 .	45. What was your previous job in the factory?		

Taken with minor changes from Operating and Medical Codes of Practice for Safe Working with Toluene Diisocyanate, Health Advisory Committee, British Rubber Manufacturers' Association Ltd.



APPENDIX D OCCUPATIONS AND SELECTED POTENTIAL EXPOSURES

Occupation	Agent(s)
Abrasive blasters	Silica
Abrasive blasters	Silica
Abrasive makers	Silica
Abrasion resistant	Tol, diisocyanate
rubber makers	
Acetylene workers	Arsenic
Acid dippers Acid finishers	Arsenic nitrogen dioxide Lead
Actors	Lead Lead
Acetic acid makers	Carbon monoxide
Acoustical product makers	Asbestos
Acoustical product installers	Asbestos
Adhesive makers	Benzene
Adhesive workers	Tol, diisocyanate
Agriculture	Lead, silica
Airplane dope makers	Benzene
Air filter makers	Asbestos
Aircraft burners	Tol, diisocyanate
Airplane pilots	Carbon monoxide
Alcohol workers	Benzene
Alkali-salt makers	Sulfur dioxide
Alloy makers	Arsenic
Amalgam makers Ammonia makers	Mercury Carbon monoxide
Aniline color makers	Arsenic
Aniline makers	Benzene, nitrogen dioxide
Aniline workers	Arsenic
Antimony ore smelters	Antimony
Antimony workers	Antimony
Aniline makers	Benzene nitrogen dioxide
Aniline color makers	Arsenic
Arsenic acid makers	Arsenic, nitrogen dioxide
Arsenic workers	Arsenic
Art glass workers	Benzene

Artificial flower makers
Artificial leather makers
Artists, commercial
Arc welders
Arsine workers
Artificial abrasive makers
Artificial gas workers
Asbestos product
impregnators
Asphalt mixers
Asbestos-cement products
Asbestos-cement products

Asbestos-coating makers Asbestos-coating users Asbestos-Grout makers Asbestos-Grout users Asbestos-millboard makers Asbestos-mortar makers Asbestos-mortar users Asbestos millers Asbestos miners Asbestos-paper makers Asbestos-paper users Asbestos-plaster makers Asbestos-plaster users Asbestos sprayers Asbestos workers Asbestos product impregnators Auto body shop workers Auto garage workers

Auto painters Automotive workers

Automobile users
Babbitters
Babbitt metal workers
Bactericide makers
Barometer makers
Battery makers
Battery makers, dry
Battery workers, storage

Arsenic
Benzene, nitrogen dioxide
Lead, mercury
Carbon monoxide
Arsenic
Carbon monoxide
Carbon monoxide
Carbon monoxide
Benzene

Benzene Asbestos Asbestos

Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos Asbestos

Lead

Silica, nitrogen dioxide, sulfur dioxide, carbon monoxide, asbestos, lead Nitrogen dioxide Benzene, sulfur dioxide, carbon monoxide, nitrogen dioxide Carbon monoxide Lead Antimony, arsenic Mercury Mercury Mercury Benzene

Antimony

Bakers

Battery (dry) makers Beaming operators.

cotton mill

Beet sugar bleachers

Belt acourers

Benzene hexachloride makers Benzene Benzene workers

Bisque-kiln workers

Blacksmiths

Blast furnace workers

Bleaching powder makers

Blueprinters

Blast furnace gas users

Blockers (felt hat) Boiler makers Boiler operators Boiler water treaters

Bone extractors Bookbinders Bottle cap makers

Boiler rooms

Boiler room workers Brakelining makers

Brass cleaners Brass founders

Brass makers Brass polishers

Braziers

Brewery workers Brick layers Brick makers

Bright dip workers Britannia metal workers

Bronze cleaners Bronze makers

Bronzers

Broommakers Brush makers

Brewers

Brick burners **Brickmakers**

Buffers

Carbon monoxide

Benzene Cotton dust

Sulfur dioxide

Benzene Benzene

Silica, carbon monoxide Lead, carbon monoxide Sulfur dioxide, carbon

monoxide

Arsenic

Nitrogen dioxide Carbon monoxide Carbon monoxide

Mercury Arsenic Sulfur dioxide Sulfur dioxide

Arsenic, lead Lead

Noise Carbon monoxide Benzene, asbestos Nitrogen dioxide

Antimony, carbon monoxide

Arsenic Lead

Lead, nitrogen dioxide

Sulfur dioxide Lead, silica

Lead, silica, sulfur dioxide

Nitrogen dioxide

Antimony

Nitrogen dioxide

Arsenic

Antimony, arsenic, benzene,

lead, mercury Sulfur dioxide

Lead

Carbon monoxide Carbon monoxide Sulfur dioxide

Silica

Buhrstone workers

Burnishers

Building demolition workers

Busdrivers Cable makers Cable splicers

Cadmium workers

Calibration instrument

makers Can makers Candle makers

Canners Cap loaders, percussion

Carbolic acid makers

Carbon brush makers Carborundum makers

Carders, cotton mill

Carding machine operators,

cotton mill Carpet makers Carroters, felt hat Cartridge makers

Cast scrubbers, electroplating Benzene Casting cleaners, foundry

Cattle dip workers Caustic soda makers Carbide makers

Carbon monoxide workers

Carders (asbestos)

Caulking compound makers Caulking compound users

Celluloid makers Cellulose makers Cement makers Cement mixers

Ceramic enamel workers

Ceramic makers Ceramic workers Cellulose makers

Chemical equipment makers Chemical glass makers

Chemical synthesis Chippers

Chlorinated paraffin makers Lead

Silica

Antimony, benzene

Asbestos

Carbon monoxide

Lead

Antimony, lead, carbon

monoxide Arsenic

Mercury

Benzene Arsenic Arsenic, lead Mercury

Benzene, sulfur dioxide

Mercury Silica Cotton dust Cotton dust

Arsenic Arsenic Lead Silica Arsenic Mercury

Carbon monoxide Carbon monoxide

Asbestos Asbestos lead Asbestos lead Nitrogen dioxide Sulfur dioxide

Silica Silica Arsenic

Antimony, arsenic, lead

Silica, mercury Sulfur dioxide

Lead Silica Benzene Lead, silica

Chlorine makers Chlorobenzene makers Chlorobenzene makers Chlorodiphenyl makers Charcoal burners

Chauffeurs

Chemical products manufacture

Chimney masons Chimney sweepers Cigar makers

Cinnebar ore processors Cleaner operators, cotton mill

Cleaner, cotton mill Clutch disc impregnators

Clutch facing makers Coke oven tar chaser Coke oven workers

Mercury Mercury Benzene Benzene

Carbon monoxide Carbon monoxide

Noise

Carbon monoxide Carbon monoxide

Lead Mercury Cotton dust

Cotton dust Benzene Asbestos

Coke oven emissions

Benzene, coke oven emissions, sulfur dioxide, carbon

monoxide Cotton dust

Combing machine operators. cotton mill

Compositors

Construction workers Copper cleaners Copper refiners Copper smelters

Cosmetics makers Cotton bleachers

Coal miners Coal tar refiners Coal tar workers

Cobblers

Coke oven door cleaners,

luterman

Coke oven door machine

operators

Coke oven larry car operators Coke oven emissions Coke oven lidmen, larrymen Coke oven maintenance

Coke oven patcher

Coke oven pusher operators

Antimony

Silica, asbestos, noise Nitrogen dioxide

Antimony

Arsenic, sulfur dioxide

Silica

Nitrogen dioxide

Benzene Benzene Benzene

Coke oven emissions

Coke oven emissions

Coke oven emissions Coke oven emissions

Coke oven emissions Coke oven emissions Coke oven quench car operators Coal distillers Cobblers (asbestos) Coke oven workers

Colored glass maker Compressed air workers Corrugated paper manufacture Crop dusters Crushers (asbestos) Cutlery makers Cupola workers Cyclohexane makers Decorators, pottery Defoliant applicators Defoliant makers Degreasers Demolition workers Dental amalgam makers Dental technicians Dental workers Dentists Detergent makers Diamond polishers

calciners Dichlorobenzene makers Diesel equipment operators Diesel engine operators

Diatomaceous earth

Diesel engine repairmen
Dimethlsulfate makers
Diphenyl makers
Direct current meter workers
Disinfectant makers

Disinfectors
Dippers (acid)
Divers
Dock workers
Drawing frame operators,
cotton mill

Drug makers

Coke oven emissions

Carbon monoxide
Asbestos
Benzene, carbon monoxide,
sulfur dioxide
Chromic acid
Carbon monoxide
Noise

Arsenic, lead Asbestos Lead, silica Carbon monoxide Benzene Lead Arsenic

Lead
Arsenic
Arsenic
Benzene
Lead, noise
Mercury
Lead
Nitrogen dioxide

Mercury, nitrogen dioxide

Benzene Lead Silica

Benzene

Nitrogen dioxide Sulfur dioxide, carbon

monoxide Sulfur dioxide

Arsenic Benzene Mercury

Arsenic, benzene, mercury,

sulfur dioxide

Mercury, sulfur dioxide Chromic acid Carbon monoxide

Carbon monoxide Cotton dust

Arsenic, benzene, mercury

Dry cleaners Dryer operators, cotton mill Drier workers Dve makers

Dyers DDT makers Earth moving equipment operators Electric apparatus makers Electric arc welders Electrolytic copper workers Electronic device makers Electronic equipment makers Silica Electroplaters

Electrotypers Electrical equipment manufature **Embalmers** Embroidery workers Emery wheel makers Enamel burners Enamel makers Enamelera

Engravers Enamellers Engine rooms Etchera Ethylbenzene makers Explosive makers

Explosives users Exterminators Farm workers

Farmers

Fabricated metal product manufacture Feather workers

Benzene Cotton dust Carbon monoxide Antimony, arsenic, benzene, lead, mercury, nitrogen dioxide, sulfur dioxide Lead Benzene Noise

Nitrogen dioxide Arsenic Lead Antimony, arsenic, benzene, lead, mercury, nitrogen dioxide

Noise Mercury

Lead

Mercury

Lead Lead, silica Arsenic, lead Arsenic, benzene, lead, silica, carbon monoxide Benzene Silica Noise Arsenic, nitrogen dioxide Benzene Antimony, benzene, lead, mercury, nitrogen dioxide Nitrogen dioxide Arsenic, sulfur dioxide Arsenic, lead, mercury, nitrogen dioxide, silica Arsenic, lead, mercury, nitrogen dioxide, silica Noise

Arsenic, benzene, sulfur dioxide

Feltmakers Ferrosilicon workers Fertilizer makers

Fettlers
File cutters
Fingerprint detectors
Firemen

Fireworks makers
Fiberizers (asbestos)
Fireproofers
Fischer-Tropsch process
workers
Flameproofers
Flint workers
Flour bleachers

Flower makers, artificial Flue cleaners Flypaper makers Food bleachers

Foundry workers

Formeldehyde makers Foundries Foundry workers (core making) Fruit preservers Fruit bleachers Fuel oil handlers Fumigant makers Fumigators Fungicide makers Fur preservers Fur processors Furnace liners Furnace operators Furniture finishers Fused quartz workers Furnace filter makers Furnace starters Furnace workers

Mercury
Arsenic
Arsenic, nitrogen dioxide,
silica, sulfur dioxide
Silica
Lead
Mercury
Lead, nitrogen dioxide, sulfur
dioxide, asbestos, carbon
monoxide
Antimony, arsenic, mercury
Asbestos

Asbestos

Carbon monoxide

Antimony
Silica
Nitrogen dioxide, sulfur
dioxide
Lead
Sulfur dioxide
Arsenic
Nitrogen dioxide, sulfur
dioxide
Antimony, lead, silica, sulfur
dioxide
Carbon monoxide
Noise
Tol. Diisocyanate

Sulfur dioxide
Sulfur dioxide
Benzene
Benzene, sulfur dioxide
Sulfur dioxide
Benzene, mercury
Mercury
Mercury
Silica
Sulfur dioxide
Benzene
Silica
Asbestos
Carbon monoxide
Carbon monoxide

Furniture workers
Furniture manufacture
Galvanizers
Garage mechanics

Gas shrinking operators
Gas welders
Gas workers, illumination
Gas station attendants
Gasket makers
Gasoline engine testers
Gelatin bleachers
Gin stand operators,
cotton gin
Ginners
Glass blowers
Glass makers

Glass polishers Glaze dippers, pottery Glaze mixers, pottery Glost-kiln workers Glue bleachers Glue makers Glass manufuacture Gold extractors Gold refiners Grain bleachers Granite cutters Granite workers Grinders, cotton mill Grinding wheel makers Grindstrone workers Gun barrel browners Hair remover makers Hairdressers Handpickers, cotton Hard rock miners Hatters Heat treaters Heat treaters, magnesium Herbicide makers Heat resistant clothing makers

Carbon monoxide
Noise
Arsenic, lead, sulfur dioxide
Lead, carbon monoxide,
nitrogen dioxide, sulfur
dioxide
Nitrogen dioxide
Nitrogen dioxide
Benzene, carbon monoxide
Carbon monoxide, lead
Asbestos
Carbon monoxide
Sulfur dioxide
Cotton dust

Cotton dust Nitrogen dioxide Antimony, arsenic, lead, silica, sulfur dioxide Lead Antimony Silica Lead Sulfur dioxide Benzene Noise Arsenic, mercury Antimony, arsenic, lead Sulfur dioxide Silica Silica Cotton dust Silica Silica Lead Arsenic Benzene Cotton dust Silica Mercury Nitrogen dioxide Sulfur dioxide Arsenic, benzene Asbestos

Heat treaters
Hide preservers
Histology technicians
Hydrochloric acid workers
Ice makers
Illuminating gas workers
Ink makers
Insecticide makers

Insecticide users Insulators Insulators, wire Investment casting workers Incandescent lamp makers Inert filter media workers Insulation workers Iron workers Ironing board cover makers Isocvanate resin workers Japan makers Japanners Jet fuel makers Jewelers Jewelry makers

Junk metal refiners
Jute workers
Kiln liners
Kraft recovery furnace
workers
Labelers, paint can
Laboratory workers,
chemical

Lacquer makers
Lake color makers
Lamp makers, fluorescent
Lamp makers, mercury arc
Laboratory hood installers
Lacquer workers
Laggers
Laundry workers

Carbon monoxide
Arsenic
Benzene, mercury
Benzene
Arsenic, sulfur dioxide
Arsenic
Arsenic, benzene, lead, mercury
Anitmony, arsenic, benzene,
lead, mercury, silica,
sulfur dioxide
Lead
Silica
Antimony
Mercury

Lead Asbestos Asbestos, Tol. Diisocyanate Carbon monoxide Asbestos

Tol. diisocyanate
Arsenic, lead
Arsenic, lead
Nitrogen dioxide
Arsenic, lead, mercury, silica
Arsenic, lead, mercury,
nitrogen dioxide, silica
Lead
Silica
Silica
Carbon monoxide

Lead
Antimony, arsenic, benzene,
lead, mercury, nitrogen
dioxide, silica, sulfur dioxide
Benzene, lead, nitrogen dioxide
Antimony
Mercury
Mercury
Asbestos
Tol. diisocyanate
Asbestos
Carbon monoxide

Lead burners Lead counterweight makers Lead flooring makers Lead foil makers Lead hardeners Lead mill workers Lead miners Lead pipe makers Lead salt makers Lead shield makers Lead shot makers Lead shot workers Lead smelters Lead stearate makers Lead workers Leather workers Leather makers Lead mordanters Lead smelters Leather mordants Lime burners Linoleum makers Linotypers Linseed oil boilers Lint cleaner operators, cotton mill Lithographers

Lithotransfer workers
Lift truck operators
(propane and gasoline
fueled)
Lime kiln workers
Lithographers
Lumbering
Magnesium foundry
workers
Maleic acid makers
Manometer makers
Masons
Match makers
Meat preservers
Medical technicians

Antimony, arsenic, lead Lead Lead Lead Antimony, lead Lead Lead Lead Lead Lead Antimony, arsenic, lead Antimony, arsenic, lead Arsenic, lead, sulfur dioxide Lead Lead Lead, arsenic Benzene Antimony Arsenic, lead Antimony Arsenic Benzene, lead Antimony, lead Cotton dust

Benzene, lead, nitrogen dioxide, silica Lead Carbon monoxide

Carbon monoxide Benzene, silica Noise Sulfur dioxide

Benzene Mercury Silica Antimony, lead Sulfur dioxide Nitrogen dioxide Mercury smelters

Mercury workers
Metal bronzers
Metal buffers
Metal burners
Metal burnishers
Metal cleaners
Metal cutters
Metal grinders

Metal miners Metal polishers Metal refiners Metallizers Metal forming

Metal machining Metal working Metal polishers Metal refiners

Metal ozide reducers Metal refiners Methanol makers Millinery workers

Mine workers

Miners

Mirror silverers Mine-funnel coaters Mining open pit Mining underground

Monotypers

Mordanters

Mortar makers Mortormen

Mono process workers Musical light makers

Nitrate workers Nitric acid workers

Nitrite workers

Nitrobenzene makers Nitrocellulose makers Nitrocellulose workers Nitrogen dioxide workers

Nitroglycerine makers

Mercury, sulfur dioxide,

carbon monoxide

Mercury Antimony Silica Lead Silica

, Arsenic, nitrogen dioxide

Lead Lead Lead Lead, silica

Arsenic, lead, sulfur dioxide

Lead Noise Noise Noise Silica

Arsenic, sulfur dioxide Carbon monoxide Carbon monoxide Carbon monoxide

Benzene

Nitrogen dioxide, silica Antimony, arsenic, mercury,

nitrogen dioxide, silica

Benzene, lead Tol. diisocyanate Noise

Noise Noise Antimony

Antimony, arsenic, benzene,

lead Silica Silica

Carbon monoxide

Mercury

Nitrogen dioxide Lead, nitrogen dioxide

Nitrogen dioxide

Benzene Arsenic Benzene

Nitrogen dioxide

Lead

Nitrous acid workers Nickel refiners Nickel smelters Nuclear reactor workers Nuclear technologists Nurses Nylon & makers Oil bleachers Oil processors Oil purifiers Oilcloth makers Oilstone workers Openers, cotton mill Optical equipment makers Ore smelters Ore smelting workers Organic chemical synthesizers

Organic sulfonate makers Ordnance manufacturing Oxalic acid makers

Oxidized cellulose compound makers Paint makers

Paint mixers Paint pigment makers Painters

Paper hangers Paper makers

Pesticide workers

Paraffin processors
Patent leather makers
Painters
Paper manufacture
Paper products manufacture
Pearl makers, imitation
Pencil makers
Percussion cap makers
Perfume makers

Benzene, nitrogen dioxide Carbon monoxide Carbon monoxide Lead Lead Nitrogen dioxide Tol. diisocyanate Sulfur dioxide Benzene, sulfur dioxide Silica Benzene Silica Cotton dust Silica Arsenic, lead Sulfur dioxide Antimony, arsenic, benzene, nitrogen dioxide, carbon monoxide, tol. diisocyanate Sulfur dioxide Noise Nitrogen dioxide, carbon monoxide Nitrogen dioxide

Antimony, arsenic, benzene, lead, mercury, sulfur dioxide, asbestos Silica Antimony, arsenic, benzene, lead Arsenic, lead Arsenic, mercury, sulfur dioxide Benzene Lead, carbon monoxide Antimony, arsenic Noise Noise Lead Benzene Mercury Antimony, benzene Mercury

Petrochemical workers
Petroleum refinery workers
Pewter workers
Petroleum refinery workers
Petroleum refining
Pharmaceutical workers

Phenol makers Phosphor makers Phosphoric acid makers Photoengravers Photographers Photographic chemical makers Photography workers Phthalic acid makers Physicians Pickers, cotton mill **Picklers** Picric acid makers Pigment makers **Pipefitters** Plasma torch operators Plastic cast bronzers Plastic workers Plumbers Plastic manufacture Plastic products manufacture Plastic foam makers Plasticizer workers Plastic workers Plastic makers Policemen Polish makers Polishing soap makers Pottery decorators Pottery glaze dippers Pottery glaze mixers Pottery workers

Pouncers, felt hat

Benzene
Arsenic, benzene, sulfur dioxide
Antimony, lead
Benzene
Noise
Antimony, arsenic, benzene,
mercury, nitrogen dioxide,
silica, sulfur dioxide
Benzene
Antimony
Nitrogen dioxide
Mercury, nitrogen dioxide
Mercury
Benzene

Lead
Nitrogen dioxide
Nitrogen dioxide
Cotton dust
Nitrogen dioxide
Benzene
Antimony, arsenic
Lead, nitrogen dioxide
Nitrogen dioxide
Antimony
Arsenic, lead
Arsenic, lead
Noise
Noise

Tol. diisocyanate
Tol. diisocyanate
Arsenic
Asbestos
Lead, carbon monoxide
Benzene
Silica
Benzene
Lead
Lead
Antimony, lead, silica, sulfur
dioxide
Silica

Polyurethane foam makers Polyurethane foam users Polyurethane sprayers Ore smelters Ore smelting workers Organic chemical synthesizers

Organic sulfonate makers Ordnance manufacturing Oxalic acid makers

Oxidized cellulose compound makers Paint makers

Paint mixers
Paint pigment makers
Painters

Paper hangers Paper makers

Paraffin processors Patent leather makers Painters Paper manufacture Paper products manufacture Pearl makers, imitation Pencil makers Percussion cap makers Perfume makers Pesticide workers Petrochemical workers Petroleum refinery workers Pewter workers Petroleum refinery workers Petroleum refining Pharmaceutical workers

Phenol makers Phosphor makers Tol. diisocyanate

Tol. diisocyanate
Tol. diisocyanate
Arsenic, lead
Sulfur dioxide
Antimony, arsenic, benzene,
nitrogen dioxide, carbon
monoxide, tol. diisocyanate
Sulfur dioxide
Noise
Nitrogen dioxide, carbon
monoxide
Nitrogen dioxide

Antimony, arsenic, benzene, lead, mercury, sulfur dioxide, asbestos Silica Lead Antimony, arsenic, benzene, Arsenic, lead Arsenic, mercury, sulfur dioxide Benzene Lead, carbon monoxide Antimony, arsenic Noise Noise Lead Benzene Mercury Antimony, benzene Mercury Benzene Arsenic, benzene, sulfur dioxide Antimony, lead Benzene Noise Antimony, arsenic, benzene, mercury, nitrogen dioxide, silica, sulfur dioxide

Benzene

Antimony

Phosphoric acid makers Photoengravers Photographers Photographic chemical Photography workers Phthalic acid makers Physicians Pickers, cotton mill Picklers 4 8 1 Picric acid makers Pigment makers Pipefitters 1 4 1 Plasma torch operators Plastic cast bronzers Pottery kiln workers Power plant operators Porcelain workers Preservative makers Press box operators. cotton mill Pressure gage makers. **Printers** Printing ink workers Protein makers, edible Protein makers, industrial Primary metal processing Printing **Printers** Producer gas workers Pulpstone workers Putty makers Pump packing makers Pyrites burners Pyrotechnics workers Pyroxylin-plastics workers Quarry workers Quartz workers Raw silk bleachers Rayon makers Reclaimers, rubber Refiners Refractory makers Refrigeration workers

Resin makers

Nitrogen dioxide Mercury, nitrogen dioxide Mercury Benzene

Lead
Nitrogen dioxide
Nitrogen dioxide
Cotton dust
Nitrogen dioxide
Benzene
Antimony, arsenic
Lead, nitrogen dioxide
Nitrogen dioxide
Antimony
Carbon monoxide
Noise
Antimony, silica
Arsenic, sulfur dioxide
Cotton dust

Mercury Antimony, benzene, lead Arsenic Sulfur dioxide Sulfur dioxide Noise Noise Antimony, benzene Carbon monoxide Silica Benzene, lead Asbestos Sulfur dioxide Antimony, arsenic Lead Silica Silica Nitrogen dioxide Arsenic Tenzene, lead Mercury Silica Sulfur dioxide Benzene

Respirator makers

Riveters

Road constructors Rock crushers

Rock cutters Rock drillers Rock grinders

Rock screeners

Rocket fuel makers Rodenticide makers

Roofers

Rotogravure printers Roving frame operators,

cotton mill

Roofing materials makers

Rubber buffers Rubber cementers

Rubber compound mixers

Rubber gasket makers Rubber makers

Rubber reclaimers Rubber manufacture Rubber compounders

Sand cutters Sand pulverizers Sandblasters Sandpaper makers Sandstone grinders

Sawyers

Sanitation workers

Scouring soap workers Scrap metal workers

Sealing wax makers Seed handlers

Semiconductor compound

makers

Semiconductor workers Service station attendants

Sewer workers Sheep dip workers Sheet metal workers

Shellac makers Ship dismantlers Shoe factory workers

Shoe finishers

Benzene

Lead Silica Silica Silica Silica

Silica Silica

Nitrogen dioxide

Arsenic

Lead, asbestos

Benzene Cotton dust

Asbestos Lead Benzene

Benzene, lead, silica

Benzene

Antimony, benzene, lead

Lead Noise Asbestos Silica Silica Silica Silica Silica

Carbon monoxide

Silica

Silica

Antimony, lead

Arsenic Mercury

Antimony, arsenic, lead

Antimony, lead Lead, benzene Carbon monoxide

Arsenic Lead

Benzene, lead

Lead Benzene Benzene Shoe stainers Shot makers Shingle makers Ship burners Ship welders Ship builders Ship demolition workers Shipbuilding Shoe stainers Sign painters Silica brick workers Silicon alloy makers Silk weighters Silo fillers Silver extractors Silver polishers Silver refiners Slashing operators, cotton mill Slate workers Slushers, porcelain enameling Smelters Soap makers

Solvent makers
Solder makers
Spacecraft workers
Spindle pickers cotton
Spinners, cotton mill
Spooling operators,
cotton mill
Spinners (asbestos)
Stain makers
Stainers
Steel engravers
Stereotypers
Stibnite miners
Stone bedrubbers

Soda makers

Solder makers

Solderers

Sodium silicate workers

Sodium sulfite makers

Soil sterilizer makers

Benzene, lead Lead Asbestos Tol. diisocyanate Tol. diisocyanate Asbestos Asbestos Noise

Lead Lead, mercury Silica Silica Lead

Nitrogen dioxide

Mercury Silica Arsenic Cotton dust

Silica Lead

Silica, lead, antimony, arsenic Benzene

Arsenic Silica

Sulfur dioxide

Arsenic

Antimony, lead

Antimony, arsenic, lead, carbon monoxide

Benzene

Antimony, lead

Silica

Cotton dust Cotton dust Cotton dust

Asbestos Benzene Benzene Lead

Antimony, lead Antimony Silica Stone cutters Stone planers Storage battery chargers Storage battery workers Straw bleachers Street sweepers Stripper operators, cotton Stripper operators, cotton mill Styrene makers Steel making Steel makers Stokers Stone products industries (cement mills) Stone workers Submarine workers Subway construction workers Sugar refiners Sulfite makers Sulfur dioxide workers Sulfurers, malt and hops

Sulfuric acid workers Switch makers Synthetic fiber makers Tanners

Sulfuric acid makers

Tar workers
Taxidermists
Talc miners
Talc workers
Tannery workers
Television picture tube
makers
Temperers
Textile bleachers
Textile bleachers, rayon
Textile dryers
Textile flame-proofers
Textile processors
Textile printers
Textile makers

Silica
Silica
Sulfur dioxide
Antimony, lead
Sulfur dioxide
Silica
Cotton dust
Cotton dust

Benzene Noise Carbon monoxide Carbon monoxide Noise, silica

Noise, silica Arsenic Silica

Sulfur dioxide Sulfur dioxide Sulfur dioxide Sulfur dioxide Arsenic, nitrogen dioxide, sulfur dioxide Arsenic, sulfur dioxide Mercury Benzene Arsenic, lead, mercury, sulfur dioxide Arsenic Arsenic, mercury Asbestos Asbestos Lead, sulfur dioxide Lead

Lead
Sulfur dioxide
Nitrogen dioxide
Antimony
Antimony
Lead
Antimony, arsenic, mercury
Lead

Textile manufacture Textile processors Textile workers Thermometer makers Thermometer makers, vapor pressure Thionyl chloride makers Tile makers Tin foil makers Tinners Tobacco seedling treaters Tooth paste makers Toll collectors (highway) Tooth paste makers Tree sprayers Trinitrotoluol makers Traffic controllers Transportation equipment operators Trucking Tube mill liners Tumbling barrel workers Tunnel construction workers Tunnel workers Twisters, cotton mill Type cleaners Type founders Type metal workers Type setters TDI workers Undercoaters Upholstery makers Vacuum pump makers Vanadium compound makers Vapor tube makers Varnish makers Vegetable preservers Vehicle tunnel attendants

Vine dressers Vinyl chloride makers Vinyl-asbestos tile makers Noise, cotton dust Tol. diisocyanate Asbestos, cotton dust Mercury Sulfur dioxide

Sulfur dioxide
Lead, silica
Lead
Arsenic, lead
Benzene
Silica
Carbon monoxide
Silica
Arsenic
Benzene
Caron monoxide
Noise, carbon monoxide

Noise, carbon monoxide Silica Silica, noise

Nitrogen dioxide, sulfur dioxide Cotton dust Benzene Antimony, lead Antimony, arsenic Antimony, lead Tol. diisocyanate Asbestos Tol. diisocyanate Mercury Lead

Mercury
Arsenic, benzene, lead
Sulfur dioxide
Lead, nitrogen dioxide, sulfur
dioxide, carbon monoxide
Arsenic
Mercury
Asbestos

Vinyl-asbestos tile installers Vulcanizers

Wallpaper printers
Warfare gas makers
Water weed controllers
Wax makers
Warehouse workers
Water gas workers
Weavers, cotton mill
Weed sprayers
Welders
Weavers (ashestos)

Weavers (asbestos)
Whetstone workers
Wicker ware bleachers
Window shade makers
Wine makers
Wire drawers
Wire insulators
Wire coating workers
Wood bleachers

Wood filler workers
Wood preservative workers
Wood pulp bleachers
Wood stainers
Wood products
manufacture
Wood preservers
Wood distillers
Zinc chloride makers

Zinc mill workers
Zinc miners
Zinc refiners

Zinc smelter chargers

Zinc smelters
Zinc white makers

Asbestos

Antimony, benzene, sulfur dioxide

Arsenic, lead Arsenic, benzene

Arsenic Benzene

Carbon monoxide Carbon monoxide Cotton dust

Arsenic

Benzene, lead, nitrogen dioxide

Asbestos Silica

Sulfur dioxide

Benzene

Sulfur dioxide, arsenic

Arsenic Benzene

Tol, diisocyanate Sulfur dioxide

Silica

Arsenic, mercury Sulfur dioxide

Lead Noise

Arsenic

Carbon monoxide

Arsenic Lead

Antimony, arsenic, lead Antimony, arsenic, lead

Lead

Sulfur dioxide, lead Carbon monoxide

