

**THE MINISTRY OF LABOUR,  
WAR INVALIDS AND SOCIAL  
AFFAIRS**

**SOCIALIST REPUBLIC OF VIET NAM**  
**Independence - Freedom – Happiness**

No.: 1453/LDTBXH-QD

*Hanoi, October 13, 1995*

**DECISION**

**ON PROMULGATING THE PROVISIONAL LIST OF OCCUPATION, EXTREMELY  
HARD, TOXIC, DANGEROUS WORKS AND HARD, TOXIC, DANGEROUS WORKS**

**MINISTER OF LABOUR, WAR INVALIDS, AND SOCIAL AFFAIRS**

*Pursuant to Decree No.15/CP dated 2/3/1993 of the Government defining the functions, tasks, powers and responsibilities for State Management of Ministries, Ministerial-level Agencies.*

*Pursuant to Decree No.96/CP dated 7/12/1993 of the Government defining the functions, tasks, powers and organizational structure of the Ministry of Labor, War Invalids and Social Affairs.*

*Pursuant to the Code on Labor dated 23/6/1994.*

*After having opinions of the Ministry of Health in the Official Dispatch No.6971/VS dated 29/9/1995.*

**DECIDES**

**Article 1:** Issuing together with this Decision is the provisional list: "Occupation, extremely hard, toxic, dangerous works" and "Occupation, hard, toxic, dangerous works".

**Article 2:** The laborers doing the jobs or occupation mentioned in Article 1, are enjoyed the regimes of Labor Protection, wages and Social Insurance as prescribed in the Labor Code and the documents of guiding the implementation of the Code.

**Article 3:** This Decision takes effect from 01/01/1995. For the occupation, the job is not in the list attached to this Decision, the ministries and branches need to review and make a list to send to the joint Ministries of Labor – War Invalids and Social Affairs - Health to promulgate.

**Le Duy Dong**

(Signed)

**LIST**

**OCCUPATION, EXTREMELY HARD, TOXIC, DANGEROUS WORKS**  
*(Together with the Decision No.1453/LDTBXH-QD dated October 13, 1995)*

**I- MINING:**

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
	WORKING CONDITIONS TYPE VI	
1	Drilling rock by hand machine	- The narrow, low light, lack- of-oxygen workplace,

	hammer in pit	dangerous, hard work affected by dust, noise and vibration beyond multiple permissible standard
<b>WORKING CONDITIONS TYPE V</b>		
2	- Drilling to exploit rock by hand machine hammer	- Working on the rocky slopes, dangerous, hard work affected by dust, noise and strong vibration
	- Operating rotary bit drilling rig, pluggers.	- Working outdoors, risk, regularly exposed to high noise and dust beyond the multiple permissible standard

## **II- METALLURGICAL:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
1	<b>WORKING CONDITIONS TYPE VI</b>	
	- Working on top of coke oven	- Working on the top of very hot, dangerous oven, hard work
<b>WORKING CONDITIONS TYPE V</b>		
2	- Driving to block hot coke coal	- Working on the very hot, dangerous height affected by CO <sub>2</sub> , CO and dust
3	- Repairing coke oven	- Very hot, dangerous, hard manual work, exposed to carbon monoxide, dust
4	- Adjusting temperature of coke oven	- Working near the very hot, dangerous furnace, affected by CO and dust
5	- Driving coke, breaking coke	- Regularly exposed to high temperatures, affected by CO, CO <sub>2</sub>
6	- Driving to pour coal on top of coke oven	- Working on the top of very hot, dangerous oven, impacted by CO <sub>2</sub> and CO with very high concentrations
7	- Ferrous Metallurgy	- Very hot, hard work hard affected by noise, CO, CO <sub>2</sub> and dust with high concentrations
8	- Casting steel ingots	- Dangerous, very vulnerable to fire, burns work affected by heat, noise, CO, CO <sub>2</sub>
9	- Breaking, vibrating wall, building steel furnaces	- Work hard, narrow workplace affected by dust, high noise and strong vibration
10	- Producing electrode arc;	- Regularly exposed to heat, noise, dust with high concentrations and toxic chemicals, CO, CO <sub>2</sub> , Brai beyond the permissible standards multiple times
11	- Rolling hot steel	- Hard work affected by heat, dust and high, very high noise
12	- Steeling electric oven, gallery (over 1 ton)	- Hard, very hot, dusty, high noise work affected by CO and CO <sub>2</sub>
13	- Casting aluminum, rolling hot aluminum	- Hard work, very hot and noisy workplace beyond the permissible standards multiple times

## **III- MECHANIC:**

<b>No.</b>	<b>Names of occupation or</b>	<b>Characteristic on working conditions of occupation</b>
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	<b>works</b>	<b>or works</b>
	<b>WORKING CONDITIONS TYPE V</b>	
1	- Electric welding in ship holds, barge holds	- Cramped, damp, dirty, and lack-of-oxygen workplace, the restrictive working position impacted by CO, CO <sub>2</sub> , MnO <sub>2</sub> and noise
2	- Welding in the boiler of tank truck	- Cramped, lack of light, oxygen workplace, confined working positions the restrictive working position impacted by welding gas, arc, CO, CO <sub>2</sub>
3	- Leaking in ship holds, barge holds	- Cramped, damp, dirty, and lack-of-oxygen workplace, the restrictive working position, lack of light, oxygen affected by high concentrations of dust and very noisy
4	- Sandblasting to remove rust of hull	- Working outdoors, hard work, affected by noise, strong vibration, and very high dust concentrations
5	Removing bavia by pneumatic	- Hard work, constantly affected by dust, high noise, and vibration beyond the permissible standards multiple times.
6	- Cooking lead alloy, cut-xi molding tin and details of locomotives	- Hard work affected by heat radiation and lead gas beyond the permissible standards multiple times
7	- Painting antifouling in ship holds, barge holds	- Cramped, lack-of-oxygen workplace, the restrictive working position affected by CO <sub>2</sub> , toluene and other chemicals in the paints
8	- Burning grind stone	- Very hard, manual, hot work impacted by CO, CO <sub>2</sub>
9	-Refining corindon to produce grind stone	- Hard work, affected by high temperatures, dust, noise and CO

#### **IV- CHEMICALS**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE VI</b>	
1	- processing superphosphate	- Working on a high floor, exposed to toxic chemicals (HF, SO <sub>3</sub> ) high concentrations susceptible to intoxication and danger.
	<b>WORKING CONDITIONS TYPE V</b>	
2	- Producing and packaging Na <sub>2</sub> SiFe	- Hard work, regularly exposed to toxic gases (HF), noise and high dust concentrations
3	- Crushing apatite ore, pyrite; packaging apatite powders	- Regularly exposed to dust, noise beyond the permissible standards multiple times
4	- Operating ovens, providing pyrite for oven to produce acid H <sub>2</sub> SO <sub>4</sub>	- Working on a high floor next to the oven, directly exposed to dust, noise and high concentrations of SO <sub>2</sub>
5	- Operating pump and sealing acid H <sub>2</sub> SO <sub>4</sub> vessel	- Regularly exposed to toxic chemicals and noise

6	- Filtering electric dust to produce acid H <sub>2</sub> SO <sub>4</sub>	- Regularly exposed to dust, toxic chemicals, and high noise.
7	- Producing batteries: regenerating lead; grinding lead and casting lead; mixing, warranting lead jelly; cutting, grinding, drying lead plate; welding extreme beam; making lead plate; assembly of batteries.	- Regularly exposed to noise, heat and very high concentrations of lead dust
8	- Grinding puzzolan powder	- Hard work, affected by high noise and dust beyond the permissible standards multiple times
9	- Producing calcium carbide	- Manual, hard work affected by heat, noise, CO <sub>2</sub> , CO and dust with very high concentrations
10	- Producing rubber	- Hard, hazardous work, exposed to high temperature, dust, SO <sub>2</sub> , H <sub>2</sub> S

#### **V- TRANSPORT:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
<b>WORKING CONDITIONS TYPE V</b>		
1	- Officers and crew members, technicians, mechanics of construction vessel	- Regularly living on the river, sea; hard work, affected by waves and big noise
2	- Driving the locomotives	- Regularly working on the train, always being stressed, affected by noise
3	- Driving the trucks, with a tonnage of 20 tons or more	- Hard, dangerous work, affected by dust, vibration and high noise
4	- Driving the excavators with bucket capacity from 4m <sup>3</sup> or more	- Hard work, affected by dust, high noise

#### **VI- TRAFFIC CONSRUCTION AND STORAGE, WHARF**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
<b>WORKING CONDITIONS TYPE VI</b>		
1	- Immersing, preserving semi-automatic anti-rust sleeper	- Hard, dangerous and toxic work due to direct exposure with strong toxic chemicals (phenol) at very high concentrations
<b>WORKING CONDITIONS TYPE V</b>		
2	- Refresh, overhaul of rail	- Working outdoors, hard, manual work
3	- Operating sleeper space tamper.	- Hard work affected by noise, big vibration
4	- Cargo handling at the port	- Manual, hard work, working outdoors

	manually	
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## VII- ELECTRICITY

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
WORKING CONDITIONS TYPE V		
1	- Operating power plant flue	- The very dusty and dangerous workplace with high temperature
2	- Repairing and conservation of power plant flue	- Hard, hot work with very high dust concentrations, frequent exposed to the glass-wool likely to cause irritation, allergy
3	- Operating the coal conveyor in the tunnels, power plants	- Frequently going, large energy consumption, dirt, very high dust concentrations
4	- Operating electricity, machinery in the tunnel of hydro power plants	- Solving complex tasks, travelling a lot, poor ventilation workplace affected by noise, vibration during the work shift
5	- Repairing hydraulic equipment, electric machine's major equipment of power plants	- Cramped, grease, lack-of-oxygen workplace; hard work, restraint position affected by noise, vibration
6	- Repairing communication cables, power cables underground caves	- Work hard, always exposed to grease, lack-of-oxygen workplace affected by noise, vibration
7	- Scraping rust, painting in closed containers, in underground caves	- Narrow, low light, lack-of-oxygen workplace, restraint position affected by chemicals in the paint and CO2
8	- Sandblasting to remove rust and paint in caves or shelters	- Hard work affected by noise, vibration, dust with high level and chemicals in the paint, CO2
9	- Drilling, spraying concrete in underground caves	Hard work, great energy consumption affected by dust, high noise and vibration beyond the permissible standards multiple times

## VIII- COMMUNICATIONS

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
WORKING CONDITIONS TYPE VI		
1	- Constructing, repairing and maintaining high mast antenna (from 50m or more)	- Hard work, working on high is very dangerous and when repairing or maintaining to be affected by high frequency and ultra-high frequency electromagnetic fields
WORKING CONDITIONS TYPE V		
2	- Operating, maintaining and repairing satellite information	- Frequent exposed to ultrahigh frequency electromagnetic fields exceeding the permitted norms

	equipment (lotus station)	affecting health
3	- Constructing, maintaining and repairing underground cables	- Manual, hard work, affected by weather and dust; when maintaining and repairing, it is dirty, smelly
4	- Couriers of upland	- Working hard, travelling a lot through the high mountainous zones, many slopes regardless of raining or dry
5	- Operating, maintaining and repairing microwave equipment at the station on a high mountain, deep forest	- Solving more complex works, having no rescue capability, affected by electromagnetic fields

#### **IX- CEMENT PRODUCTION**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE VI</b>	
1	- Packaging cement with 4 semi-automatic nozzles	- Hard, hot work, restraint position affected by noise, dust beyond the permissible standards multiple times
	<b>WORKING CONDITIONS TYPE V</b>	
2	- Packaging cement by automatic rotation machine	- Hard work, frequent exposed to heat and dust beyond the permissible standards multiple times
3	- Operating jaw crusher, hammer crusher	- Exposed to high noise and dust beyond the permissible standards multiple times
4	- Scooping up clinker under the furnaces	- Manual, very hard work, very hot, noisy workplace with very high dust concentrations
5	- Rotating valves of the oven roof	- Working on the very hot, high floor with dust beyond the permissible standards multiple times

#### **X- PORCELAIN, GLASS, MISCELLANEOUS PLASTIC, WOOD PAPER...**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE V</b>	
1	- Mixing chemicals made by PU foam by craft and semi-craft.	- Hard, hazardous work regularly exposed to toxic chemicals causing damage to the nervous system such as toluene, toluene, diccoyanate, popylen gucol; NH3
2	- Operating quartz mill	- Hard work affected by dust and big noise
3	- Plating vacuum bottle	- Hard, hazardous work, travelling a lot affected by heat and toxins. NH3 with high concentrations
4	- Blowing glass by mouth	- Hard, toxic, hot work

#### **XI- CULTIVATION, MINING AND PROCESSING OF AGRICULTURAL AND FOREST PRODUCTS:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
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	<b>WORKING CONDITIONS TYPE V</b>	
	- Bottling and packaging plant protection drug	- Regularly exposed to many dangerous chemicals as Wofatox, Bassa, acetone, Ether
	- Shipping, stevedoring plant protection chemicals	- Manual, hard work, exposed to dangerous chemicals such as Wofatox, Bi 58, Bassa, acetone, Ether...

## **XII- LIVESTOCK-PROCESSING CATTLE, POULTRY:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE V</b>	
1	- Putting feathers into the machine	- Hard work, frequent exposed to dust with fungi and pathogenic microorganisms

## **LIST**

### **OCCUPATION, HARD, TOXIC, DANGEROUS WORKS**

*(Together with the Decision No.1453/LDTBXH-QD dated October 13, 1995)*

## **I- MINING**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE IV</b>	
1	- Operating pumper of iron ore in the tunnels	- Working deep underground, muddy, narrow, low light, effected by noise
2	- Operating big rotary screen to select iron ore	- Working on high floor, affected by high noise.
3	- Operating big mill to select iron ore	- Working deep underground, narrow, muddy, low light, affected by noise
4	- Operating conveyor to select iron ore	- Hard, noisy work
5	- Operating vibrating screen to select iron ore	- Affected by noise and vibration
6	- Operating ball mills to select ore	- Working in wet muddy conditions with high noise
7	- Operating medium mill to select ore	- Regularly exposed to high noise. Working on the floor, traveling constantly
8	- Operating water gun to select ore	- Work hard, tight, wet, high noisy workplace.

## **II- METALLURGY:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE IV</b>	

1	- Driving the bridge crane loading ferrous steel	- Working on the heat, noisy height with dust mixture, dust Mn and CO
2	- Crushing, screening, mixing materials of steel furnace wall	- Hard work, frequently exposed to noise and dust with high concentrations.
3	- Setting steel molds	- Heat, noisy workplace with high dust concentrations, hard, manual work
4	- Driving the steel mill	- Regularly exposed to heat, noise, CO and CO <sub>2</sub>
5	- Operating ore crushing and screening machine	- Hard work affected by high noise and MnO <sub>2</sub>
6	- Driving the crane of steel rolling chamber	- The effect of heat, big noise and vibration
7	- Driving the bridge crane for processing ferrous materials	- Frequently exposed to dust, vibration and high noise
8	- Cutting hot steel sprue	- Cramped, hot, dusty and high noisy workplace
9	- Discarding hot slag of steel furnace	- The very dusty and hot workplace affected by noise, CO and CO <sub>2</sub>
10	- Technical checking rolled steel	- Frequently exposed to noise, heat, CO and CO <sub>2</sub>
11	- Sorting scrap steel to refine steel	- Cramped, dirt workplace affected by noise, and very high dust concentrations
12	- Operating electricity of steel, ferrous furnaces	- The affect of heat, dust, noise, CO, and CO <sub>2</sub>
13	- Drying the steel pouring barrel	- Hard, hot manual work affected by noise, CO and CO <sub>2</sub>
14	- Operating coal gas fan of coke oven	- Frequently exposed to heat, dust, high noise and CO
15	- Providing coal into underground conveyor of coke oven	- Hard work affected by noise and high dust concentrations
16	- Operating coal conveyor of coke oven	- Traveling a lot, frequently exposed to noise, higt dust concentrations
17	- Operating the mill, mixing coking coal	- Manual, hard work affected by noise, high dust concentrations
18	- Operating coke conveyor	- Frequently exposed to high temperatures, noise, CO and CO <sub>2</sub>

### III-MECHANIC:

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
WORKING CONDITIONS TYPE IV		
1	- Heat treatment of metals using chemicals	- Hard, very hot work affected by radiation CO, CO <sub>2</sub> , SO <sub>2</sub> and high noise



2	- Electric welding in a long barrel	- Hard work affected by CO <sub>2</sub> , Mn, welding gas, and arc.
3	- Welding water means' hull	- Welding outdoors, restraint position affected by CO <sub>2</sub> , gas welding, arc
4	- Welding by hand train's rim	- Affected by welding gas, arc and lead gas
5	- Crashing boilers' rusty, locomotives, and wagons by hand.	- Restrictive position, affected by high concentrations of dust and noise beyond the permissible standards multiple times
6	- Crashing rusty of water means of transportation	- Working outdoors, restrictive position, affected by high noise and dust beyond the permissible standards multiple times
7	- Scrubbing rust by hand machine	- Affected by high noise, big vibration and high dust concentrations
8	- Putting train's wheel tire	- Working in a magnetic, hard, hazardous, noisy field
9	- Painting hull of water means of transportation	- Working outdoors, restrictive posture, affected by toxic chemicals in paints and toluene
10	- Painting wagons	- Frequently exposed to toxic chemicals
11	- Bending hot tole of 4mm depth or more	- Hard, hot work affected by radiation, high noise CO <sub>2</sub>
12	- Cold repair of locomotives and wagons	- Hard work, restrictive posture, exposed to grease, dust and high noise
13	- Galvanizing	- Affected by a variety of toxic gases such as HCl, NH <sub>3</sub> , NH <sub>4</sub> OH, NH <sub>4</sub> Cl, ZnO and lead
14	- Examining and repairing train's wagons	- Working outdoors, hard work, restrictive posture, dirty, dust and noisy workplace
15	- Cutting train's rim	- Hard work, restrictive posture, affected by high noise
16	- Producing and assembling guidon	- Manual, hard work affected by radiation and high noise
17	- Hot forming	- Hard work affected by radiation and high noise
18	- Forging machine hammers from 350 kg or more	- Hard, hot and very high noisy work
19	- Repairing river boat's machine	- Hard, hot, humid work, frequently exposed to grease
20	- Operating electricity of Corindon furnace producing grind stone	- Very hot, dusty and noisy workplace
21	- Beating, crushing, grinding Corindon producing grind stone	- Hard, hazardous work affected by high noise and dust beyond the permissible standards multiple times
22	- Mixing material to press grind stone, pressing panel heating grind stone	- Hard, high noisy work and dust beyond the permissible standards multiple times

23	- Cutting grind stone	- Hard work, restraint position affected by noise and high dust concentrations
24	- Soaking, washing, drying abrasive	- Manual, hard work, wet workplace, affected by noise, dust and SO <sub>3</sub>
25	- Taking up iron, screening, classifying abrasive	- Frequently exposed to high noise and dust beyond the permissible standards multiple times
26	- Breaking Corindon block, preparing furnace to refine Corindon	- Manual, hard work affected by noise and high dust concentrations
27	- Producing grind stone adhesives	- Manual, hard work affected by noise and high dust concentrations
28	- Grinding stone by hand by machine	- Hard work affected by dust, noise and vibration beyond the permissible standards multiple times
29	- Trying grinding speed	- Manual, hard work affected by noise and dust

#### IV- CHEMICALS

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
WORKING CONDITIONS TYPE IV		
1	- Crushing limestone and coal to make calcium carbide; packaging calcium carbide	- Manual, hard work, frequently exposed to noise and dust beyond the permissible standards multiple times
2	- Operating boiler	- Hard, dusty, noisy and hot work
3	- Operating drying ovens of apatite, pyrites ore.	- Hard, dusty, noisy and hot work
4	- Operating conveyors of ores of pyrite, apatite, sulfur, carbon and acid products	- Frequently exposed to noise, high concentrations of ore dust
5	- Driving crane to move pyrite, apatite ore	- Affected by noise, high concentrations of ore dust
6	- Grinding additives to produce NPK fertilizer	- Hard, noisy work and dust beyond the permissible standards multiple times
7	- Drying, making ball, packaging NPK fertilizer	- Frequently exposed to heat, dust and NH <sub>3</sub>
8	- Bagging, sewing bags and carrying superphosphate	- Manual, hard work affected by dust, SO <sub>3</sub> , HF
9	- Rolling thin films PVC, PP, PE	Exposed to gasoline vapor, heat and toxic plastic
10	- Pressing to form rubber products	- Hard, hot, dusty, noisy and with petrol vapors work
11	- Rolling calender, rolling the rubber fabric	- Affected by noise, gasoline and SO <sub>2</sub>
12	- Processing tire-hoop in the	- Frequently exposed to dust, gasoline and toxic

	tire manufacturing of all kinds	substances such as Sylen
13	- Operating electricity of calcium carbide furnace	- Frequently exposed to noise, high dust concentrations
14	- Classifying plates of pole lead manufacturing battery	- Manual work affected by noise and lead dust

#### **V- TRANSPORT**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
<b>WORKING CONDITIONS TYPE IV</b>		
1	- Dispatcher directly commands for sailing ship in the centers (Hanoi, Danang, Ho Chi Minh)	- Always deal with the complex tasks, being stressed
2	- Patrolling road, bridge (railway)	- Travelling a lot, focusing on observation to check the road, working outdoors
3	- Providing Coal for steam locomotive (train)	- Hard, hot, dusty and noisy work
4	- Driving rail car, wagon	- Frequently travelling, affected by noise, dust
5	- Operating the machine of river boat	- Regularly working on the river, affected by heat, noise, always exposed to grease.
6	- Heads of divisions of putting, hooking, connecting wagon heads of the big railway stations (Hanoi, Danang, Ho Chi Minh)	- Working outdoors, traveling a lot affected by noise, dust
7	- Staffs who cook, serve food on board of the North-South trains	- Working on the train, hard work, cramped, hot, noisy workplace
8	- Officers and crew members of river transporting vessel with a capacity of from 90CV or more	- Regularly working on the river, hard work affected by waves, wind, noise
9	- Cooks working for work ships	- Living in the ships as the crew members; narrow workplace, hard work

#### **VI- TRAFFIC CONSTRUCTION AND STORAGE WHARF:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
1	- Repairing and maintaining bridge, railways	- Working outdoors, dusty, hard, manual work
2	- Cleaning the railway stations, cleaning wagons in the railway stations (Hanoi,	- Working outdoors, affected by noise and dust

	Danang, Ho Chi Minh)	
3	- Driving cranes from 20 tons or more	- Hard, hot work
4	- Driving bulldozer	- Hard work, affected by noise, vibration and dust
5	- Being on duty of management stations of roads along the rivers, coast, lake foundation	- Regularly working on the river, hard work
6	- Driving electric crane, diesel cranes at the ports	- Affected by noise, dust and heat
7	- Operating under frame cranes at the ports	- Regularly exposed to high dust and noise

#### **VII- ELECTRICITY:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE IV</b>	
1	- Operating the machine, operate electricity in the thermal power plants	- Complex work, traveling a lot, affected by noise, very high dust concentrations
2	- Chief of operation team to inspect thermal of the power plants	- Traveling a lot, affected by heat, noise and dust beyond the permissible standards multiple times
3	- Operating circulating pump of thermal power plants	- Working in the wet, humid tunnel continuously affected by high noise
4	- Chief of coal operation team of the thermal power plants	- Affected by noise and high dust concentrations
5	- Operating supplementary equipment of thermal power plant turbine	- Regularly exposed to very high vibration and noise
6	- Operating pressure compressed air machine from 8kg/cm <sup>2</sup> or more	- Affected by very high vibration and noise
7	- Repairing thermal power plant steam valves	- Narrow workplace, restraint positions, affected by heat and very high dust concentrations
8	- The experimenting electric equipment, high voltage.	- Affected by high electromagnetic fields, frequently exposed to high voltage so dangerous to life
9	- Repairing automatic equipment of the thermal power plants	- Affected by dust, vibration and high noise
10	- Repairing electricity in the thermal power plants	- Restrictive working posture affected by noise, vibration and dust
11	- Repairing, testing the	- Frequently exposed to heat, vibration and high noise

	thermal power plants	
12	- Repairing coal conveyor	- Dirty and dusty workplace, restrictive working posture
13	- Industrial Hygiene of thermal power plants	- Manual work, affected by heat, noise and high dust concentrations
14	- Operating intake gate of pump station on the left bank, the device to open and close off the spillway of the Hoa Binh Hydropower Plant	- Hard work, wet, slippery oil workplace, affected by high noise
15	- Repairing, charging battery in the underground caves of the power plants	- Lack-of-oxygen workplace, frequently exposed to acid H <sub>2</sub> SO <sub>4</sub> , CO <sub>2</sub>
16	- Repairing compressors, substation equipment	- Narrow, slippery oil workplace, affected by high noise
17	- The experimenting the power plants	- Frequently exposed to grease, toxic chemicals, noise and dust
18	- Refining oil for transformer in the underground caves	- Narrow workplace, frequently exposed to grease affected by high noise
19	- Repairing mechanism, auxiliary electricity in the underground caves of the power plants	- Poorly ventilated workplace the restrictive posture affected by high noise
20	- Drilling spraying concrete with portable air compressor	- Hard, dirty work, affected by dust, noise and vibration beyond the permissible standards multiple times
21	- Driving the 350 ton crane in the hydroelectric plant tunnel	- Working on high, affected by vibration, big noise
22	- Industrial hygiene in the underground cave of the hydro power plants	- Manual work, the lack-of-oxygen workplace affected by dust, vibration and high noise
23	- Workers operating transformer from 110 KV or more	- Psychological nervous tension, affected by high electromagnetic fields, affecting the health
24	- The geological workers of observation of the terrain	- Working outdoors, walking a lot, large energy consumption

#### VIII- COMMUNICATIONS

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
	WORKING CONDITIONS TYPE IV	
1	- Operating, maintaining and repairing micro wave equipment at the stations on the mountain	- Frequently affected by electromagnetic fields and solving many complex tasks

2	- Couriers of midland and mountainous areas and plains (from 45km long road letters or more)	- Walking and cycling, affected by rain, sun, wind, hard work.
3	- Operating, maintaining and repairing the receiver and transmitter with capacity from 1KW or more	- Frequently affected by electromagnetic fields beyond the permissible standards multiple times
4	- Operating, maintaining and repairing equipment for satellite communication (intelsat station)	- Frequently working in the environments with electromagnetic fields beyond the permissible standards multiple times
5	- Exploiting, issuing press at the Centre (Hanoi, Ho Chi Minh City)	- Always working at night, hard work, exposed to dust and very high noise
6	- Exploiting, distributing post	- Manual, hard work, affected by dust
7	- Preservation, issuance of stamps, stamps for storage (using arsenic for preservation)	- Frequent exposed to strong toxic chemicals such as arsenic and CO2
8	- Perforating stamps by HKA machine 5/68 (made in Germany)	- Restrictive working posture, affected by high noise beyond the permissible standards multiple times
9	- Exploiting phone (telephoner grade I and grade II))	- Regularly contact with the screen, being stress, psychological
10	- Exploiting non-voice (telephoner grade I and grade II)	- Regularly contact with the screen, being stress, psychological
11	- Computing (data transmitting, phone book management, processing and programming software)	- Regularly contact with the screen, being stress, psychological

#### IX- CEMENT PRODUCTION

No.	Names of occupation or works	Characteristic on working conditions of occupation or works
1	- Operating crane, material spaying equipment	- Frequent exposed to noise and dust beyond the permissible standards multiple times
2	- Operating metering convoyer balance Clinker	- Traveling a lot, affected by noise, very high dust concentrations
3	- Operating electric dust filter, dust sleeve filter, bush screw	- Working on a high floor, traveling a lot affected by noise, very high dust concentrations
4	- Mineral mixing for sludge mill	- Hard work affected by dust and very high dust noise

5	- Lubrication of clinker furnace.	- Traveling a lot, affected by noise, very high dust concentrations
6	- Operating automatically clinker furnaces (having central control room)	- Traveling a lot, affected by high temperatures and dust
7	- Operating valve of sluice-way	- Narrow, hot, very high dust workplace, the restrictive posture
8	- Smashing clinker by hand	- Hard work, traveling a lot, affected by noise and dust.
9	- Operating slag conveyors, slag bunker, soil, rock	- Traveling a lot, affected by noise and very high dust concentration
10	- Taking balls, bullets in and out	- Hard, dusty, and very high noisy work
11	- Operating and working with sludge mill's head	- Dirty, wet workplace, traveling a lot, affected by high noise
12	- Operating burner	- Exposed to heat, high noise and dust beyond the permissible standards multiple times
13	- Pumping room	- Exposed to heat, high noise and dust beyond the permissible standards multiple times
14	- Operating the material mill for cement production	- Affected by heat, dust and very high noise
15	- Operating chain conveyors to transport clinker	- Traveling a lot, exposed to high noise and high dust concentration
16	- Operating lifting bucket	- Traveling a lot, exposed to high noise and high dust concentration
17	- Operating rubber conveyor to transport clinker	- Exposed to high noise and dust beyond the permissible standards multiple times
18	- Fule pump operation	- Exposed to high noise and dust beyond the permissible standards multiple times
19	- Firing the coal warehouse's dryer	- Hard work, affected by heat, dust and CO2

#### **X- PORCELAIN, GLASS, MISCELLANEOUS PLASTIC, WOOD PAPER...**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
<b>WORKING CONDITIONS TYPE IV</b>		
1	- Screwing the bottom vacuum bottle	- Hard work, exposed to high temperatures, high noise
2	- Operating, repairing round oven to bake porcelain	- Hard work, affected by heat, dust and CO2
3	- Moving, arranging bags to the round oven	- Manual, hard work, frequently exposed to high temperature and CO2
4	- Producing lamp post speaker; cutting bulbs' neck;	- Hard work, the narrow, restrictive workplace, always exposed to high temperature, CO2 and noise during the

	screwing bulbs' head; screwing vacuum bottle's head; cutting neck and bottom of the vacuum bottle; exhausting vacuum of bulbs, thermos bottle	work shift
5	- Cooking glass	- Hard, very hot and dusty work
6	- Taking, cutting glass; keeping the blowing-bottle, thermos bottle molds, plugs; and operating bottle, thermos bottle and helping to pull the tubes	- Manual, hard work frequently exposed to high temperature, CO <sub>2</sub>
7	- Operating furnace of gas production (coal gas)	- Manual, hard work affected by heat, dust, CO and CO <sub>2</sub>
8	- Operating the plaster mill, stirring plaster	- Manual, hard work affected by noise, dust.
9	- Drying plaster molds	- Hard work affected by dust and CO <sub>2</sub>
10	- Baking enamel	- Hard work, exposed to high temperatures, SiO <sub>2</sub> dust and angtimoan
11	- flower spray	- Monotonous work, affected by the chemicals in paints and dust
12	- White Wash of aluminum, degreasing, cleaning dirty aluminum with acid	- Manual, hard and toxic work due to exposure to toxic chemicals
13	- Cooking, washing the pulp with chlorine	- Always exposed to strong toxic chemicals beyond the permissible standards multiple times
14	- Mixing, crushing glass material	- Hard work, frequently exposed to high dust with high content of SiO <sub>2</sub>

#### **XI- FOOTWEAR, TEXTILE:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
1	- Blowing Formon into paint- sprayed leather	- Working in a sealed chamber, exposed to high concentrations of chemicals
2	- Tanning by tanin and chrome	- Manual, hard work, dirty, smelly workplace with many typys of bacteria, fungis and toxic chemicals (chromium)
3	- Preservation, processing, cutting of fresh skin	- Manual, hard work, narrow, wet, dirty, smelly workplace, the very high rate of fungus and bacterial causing diseases
4	- Pasting the skin with alcohol to make yoke, belt	- Manual work, exposed to toxic chemicals, beyond the permissible standards multiple times



5	- In charge of spinning machine	- Travelling a lot, affected by dust, heat and high noise
6	- In charge of weaving machine	- Travelling a lot, affected by dust, heat and high noise

## **XII- CULTIVATION, EXPLOITING, PROCESSING AGRICULTURE FOREST PRODUCTS:**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE IV</b>	
1	Testing plant and disinfecting	- Hard, hazardous work affected by toxic chemicals PH <sub>3</sub> , BrCH <sub>3</sub>
2	- Testing chemical residues in commodities, foodstuff, vegetables and quality of plant protection chemicals	- Regularly exposed to dangerous, toxic chemicals such as arsenic, toluene, acetone, Ether, Bi58...
3	- Forwarding and transshipping plant protection drugs on the sea-going ships and river boats and ports.	- Affected by waves and toxic chemicals: acetone, Ether, Wofatox, Bi58
4	Store keepers of plant protection drugs warehouses	- Poorly ventilated workplace, under the influence of chemicals Wofatox, Bi58, Bassa, acetone, Ether...
5	Operating the machines of manufacturing plastic packaging (semi-manual).	- Hard work, affected by toxic gas, noise during the work shift.
6	Store keepers of chemical fertilizers warehouse	- Cramped, poorly ventilated workplace affected by CO <sub>2</sub> , NH <sub>3</sub>
7	Loading and unloading for transport of chemical fertilizers.	Manual, hard work, exposed to CO <sub>2</sub> , NH <sub>3</sub> .
8	Mechanism of microbial phosphate fertilizer crafts.	Hard, dirty, manual work affected by dust.

## **XIII- LIVESTOCK - PROCESSING OF CATTLE, POULTRY**

<b>No.</b>	<b>Names of occupation or works</b>	<b>Characteristic on working conditions of occupation or works</b>
	<b>WORKING CONDITIONS TYPE IV</b>	
1	Caring bred bulls	Regularly contacted with feces, garbage, and other pathogenic bacteria.
2	Operating the mill and machine mixing animal feed.	Hard work affected by noise, high dust concentrations.
3	Laboratory animal husbandry and handling of swabs, laboratory equipment.	Regularly contacted with infectious sources and toxic chemicals such as formaldehyde, NaOH.

4	The study, diagnosis, surgeries, tests of pathogenic microorganisms for cattle, poultry.	Regularly contacted with infectious sources and toxic chemicals such as formaldehyde, CO2, ether, acid fenic.
5	Vaccine test, production of veterinary medicine.	Regularly contacted with dangerous bacteria and toxic chemicals: Ether, acetone.
6	Studies, experiment of genetic technology and crops cells.	Regularly contacted with strong chemicals causing cell mutations as Cochandin, IAA.
7	Pre-processing feathers	Hard work, exposed to dust containing fungus microbes and pathogenic creatures.
8	Pigs Slaughter	Always working at night, hard work, wet workplace.
9	Picking up for classifying, and transportation of animal bones	Hard, dirty, smelly work, exposed to bacteria, fungus and H2S gas
10	Processing animal bones	Hard work, dirty, smelly workplace, exposed to dust, noise and H2S
11	Carrying, molding in the frozen storage.	Hard work very cold, high noisy workplace specializing at night.
12	Packaging meat in the frozen chamber	The very cold workplace, hard, monotonous work, affected by high noise, specializing at night.
13	Operating, repairing air conditioners and refrigeration supply systems	Cramped, cold workplace, affected by high noise and NH3.

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