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**NATIONAL OCCUPATIONAL HEALTH STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GBZ/T 285-2016

**Guideline for prevention and control of occupational hazards in
gem processing industry
(English Translation)**

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Foreword

This standard is formulated in accordance with the Law of the People's Republic this standard was drafted in accordance with the rules given in GB/T 1.1-2009.

1 Scope

This standard specifies the basic occupational health requirements, occupational disease hazard factors identification and pre-processing of jewellery and jade (hereinafter referred to as gemstone) processing sites.

Evaluation of prevention and control and occupational disease prevention and control work.

This standard applies to the existence of gemstone processing workplace (including stone selection, stone cutting, grinding, engraving, blasting, drilling, polishing, furnace) Employer units such as plating and plating; not suitable for gem mining, or gemstones as an employer for industrial manufacturing purposes, but Do a good job in prevention and control of occupational hazards in accordance with the relevant provisions of this guide.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only the dated version applies to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 11651 personal protective equipment selection specification GB/T 14776 Ergonomics job design principle and its numerical value Classification and technical conditions of GB/T 16758 exhaust hood GB/T 18664 Selection, use and maintenance of respiratory protection products GB/T 23466 hearing aid selection guide GB 50019 Heating, Ventilation and Air Conditioning Design Code GB/T 50033 Architectural lighting design standard GB 50034 Architectural Lighting Design Standard GBZ 1 industrial enterprise design hygiene standard GBZ 2.1 Occupational exposure limits for workplace hazards Part 1. Chemically harmful factors GBZ 2.2 Occupational exposure limits for workplace hazards Part 2. Physical factors GBZ 158 workplace occupational hazard warning sign GBZ 188 Occupational Health Monitoring Technical Specifications GBZ/T 194 Code of Practice for Preventing Occupational Poisoning Health Engineering in Workplaces GBZ/T 195 organic solvent workplace personal occupational disease protective equipment use specification GBZ/T 203 High-toxic goods operation post occupational disease hazard notification specification GBZ/T 204 Guide to occupational hazards in high-toxicity jobs GBZ/T 225 Employer's Guide to Prevention and Control of Occupational Diseases GBZ/T 229.1 Classification of occupational hazards in the workplace - Part 1. Productive dust GBZ/T 229.2 Classification of workplace occupational hazards - Part 2. Chemicals GBZ/T 229.3 Workplace occupational hazard operation classification Part 3. High temperature

3 Terms and definitions

The following terms and definitions apply to this document.

Gem gems

Magnesia, hard, durable, rare, mineral or rock that can be honed and carved into jewelry and crafts, including natural and artificial Become a gem.

Natural gem processing Using natural gemstones produced in nature as the main raw material, the processing and production of various patterns of jewelry and handicrafts are processed.

However, it does not include industrial processing techniques in which other types of manufacturing use natural gemstones for industrial use.

Artificial gems processing Artificial gems that are wholly or partially produced or manufactured by hand are used as the main raw materials (including synthetic gems, synthetic gems, gems and gems) Re-engineered gemstones, processing and production of various patterns of jewellery and handicrafts, but does not include other types of manufacturing Artificial gemstones are used as industrial processes for industrial applications.

Aerosol

A gas dispersion formed by dispersing a solid or liquid small particle and suspending it in a gaseous medium. Cut stone for gemstone processing Power tools such as saws, grinding wheels, drill bits, etc. used in the production process of grinding, (grinding,,), engraving, blasting, punching, etc.

The mist that splashes during high-speed operation forms an aerosol with fine dust particles that can be suspended in the workplace air for a long time.

Local exhaust hood

It is installed at the toxic and harmful source of the gem processing enterprise workplace, and is used to capture and control the ventilation components of local toxic and harmful substances.

4 Employer's basic occupational health requirements

4.1

Occupational health management institutions and occupational disease prevention and control systems shall be established, and full-time or part-time occupational health management personnel shall be provided.

Occupational health management personnel should receive occupational health training.

4.2

The occupational disease prevention and control work shall be carried out in accordance with the requirements of GBZ/T 225 and the current laws and regulations, creating a national occupational health for the workers.

The working environment and conditions required by standards and health requirements. See Appendix A for occupational exposure limits for major occupational hazards in the workplace.

4.3

In accordance with GBZ 188 and current laws and regulations, laborers engaged in occupational disease hazards shall be organized before and during their employment.

And the occupational health check at the time of leaving the post, and the results of the inspection are truthfully informed to the workers. Occupational health check items for various occupational hazards, See Appendix B for inspection cycles and occupational contraindications.

4.4

In the contract, the occupational disease prevention measures that should be taken during the work process of the worker and the consequences of the occupational disease should

be truthfully notified.

4.5

Do not turn the cutting work (grain cutting), grinding (grinding,,), drilling, engraving, polishing, etc.

Moved to the family workshop for processing.

4.6

If radiographic devices, radioisotopes and articles containing radioactive materials are used, they shall be in accordance with the occupational disease prevention of the People's Republic of China.

The Regulations and the Regulations on the Safety and Protection of Radioisotopes and Radiation Devices are implemented.

5.1 Basic production process

See Appendix C for the basic production process.

5.2.1 Occupational hazards in the production process

5.2.1.1

The occupational hazards of natural gemstone processing are mainly as follows.

a) Dust. mainly produced in cutting, (grain), grinding (grinding,,), engraving, drilling, polishing, etc.

Production process. High-pressure airflow purging can cause dust;

b) Noise. mainly for cutting, (grain), grinding (grinding,,), engraving, drilling, polishing, etc.

And the noise generated by the operation of various fans, high-pressure air ducts and valves;

c) Chemical factors. mineral oil used for stone cutting machine lubrication, hydrofluoric acid used for chemical polishing, paraffin wax used in waxing process of jade Wait;

d) High temperature. high temperature is generated during the waxing process of the jade.

5.2.1.2

The occupational disease hazards of artificial gemstone processing technology are mainly as follows.

a) Dust. depending on the raw materials, colorants or other ingredients required for the manufacture of artificial gemstones, the types of dust present are dusty, He dust (metal oxide dust, such as zirconia, alumina, chrome oxide, nickel oxide, cobalt oxide, etc.). Mainly produced in the original (auxiliary material) preparation, furnace feeding, material feeding,