

# OCCUPATIONAL HYGIENE STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

中华人民共和国国家职业卫生标准

GBZ 1-2010 Replace GBZ 1-2002

### Hygienic Standards for the Design of Industrial Enterprises

工业企业设计卫生标准

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#### Foreword

This standard is established according to "Occupational Hygiene Standard of the People's Republic of China".

This stander was revised based on GBZ 1- 2002" Hygienic Standards for the Design of Industrial Enterprises", all the terms except the explicitly-stated-reference terms are all obligatory terms. GBZ 1 - 2002 should be repealed from the date of implementation of this stander.

Compared with the stander GBZ 1 - 2002, Major revisions are as follows:

- a) The scope of application of the standard was adjusted and hygienic design and occupational-disease-hazard evaluation of institution and construction project of other economic organizations, construction projects lasting for years constructions of big size, temporary designs of industrial enterprises for specific reasons and provisions for entire allocation of the industrial parks were added.
  - b) Normalization citation documents were added and renewed.
- c) Major terms and definitions of the hygienic standards for the design of industrial enterprises were added.
  - d) Editing order and logical relations of some chapters were adjusted
- e) Such contents as feasibility-study phase of the construction projects, occupational-health requirement and special occupational-health compilation of the conceptual phase and final acceptance of construction phase, occupational-health management organization and institution and requirement for staffing were added.
- f) Occupational-health requirements were added when the site selection of industrial organizations were unavoidable in the natural infectious focus and industrial-pollution area or around the air shooters.
- g) Hygienic design philosophy for prevention and control of the occupational hazards in the workplace were added.
- h) Specific hygienic design requirement for dustproof and gas defense prevention of toxicants was added.
- —Hygiene- requirements of designs for dedusting, the elimination of toxicant and air conditioning were added.
- Hygienic design for air draft of accident was specified.
  The design requirement for poison-automatic-warning-device and poison-alarm-detector was added.
- ——Provisions for the temperature and average wind-speed of the work site were added when wind is partially and systematically sent.
- i) Hygienic design-requirement for sunstroke prevention and winter protection was appropriately adjusted:
  - Temperature requirement for different humidity by air conditioning in the plant.
  - ——Heating temperature of the work site and work-related welfare facilities in winter.
  - j) Hygienic design-requirement for non-ionizing radiation prevention was adjusted:
- —The site selection of the emission source of the large-sized electromagnetic field with extremely-low frequency, the selection of the emission source of the electromagnetic field with extremely-low frequency and the power equipment and hygienic requirements for

the newly-built electric power system were added. —Hygienic requirement for the distance between the residential district and the installation location of the electromagnetic field with power frequency was added. —the maximum acceptable level of the magnetic flux density in the regions such as residential area was added. —the sanitary requirement of the staff working under high electromagnetic radiation was added. k) Specific requirements for lighting and lighting layout were added. 1) Specific requirements for emergency recovery design were added. —The provision of the first-aid personnel of the emergency recovery organization; —The reference configuration of gas-shield-station equipment; ——First-aid kit configuration reference-list m) Occupational exposure limits included in GBZ 2.2-2007 had been deleted. Temperature stander of the work site in the workshop in summer; ——Hygiene limit of noise level at work site; —Hygiene limit of the segmental vibration- strength; ——Hygiene limit of the microwave-radiation-strength work at work site; ——Hygiene limit of the high-frequency-radiation strength;

- ——Hygiene limit of impulsive noise level at work site
- ——Labor intensity was classified.

power frequency;

n) Normative appendices B: manual-labor strength-class method of GBZ1 - 2002 had been deleted.

— Electric field intensity limit of the operational field of high-tension-electricity with

- o) The hygienic-buffer-zone standard of industrial enterprises was added.
- p) For special professions such as pharmacy, biology and food processing, matched standards shall be set, according to the characteristics of the profession and conforming with this stander

Appendices A and appendices B of this stander are normative appendices

This national standard was proposed by the Special Interest Committee of Professional Health Standard of Ministry of Public Health.

This stander was approved by Ministry of Public Health of the People's Republic of China.

Drafting institutions of this stander: National Institute of Occupational Health and Poison Control, Institute for Environmental Health and Related Product Safety, China CDC, School of Public Health, Fudan University, School of Public Health, Peking University, Capital University of Economics and Business, Beijing Centers for Diseases Control and Prevention (CDC), Shanghai Centers for Diseases Control and Prevention, Liaoning Provincial Center for Diseases Control and Prevention, All China Federation of Trade Unions, Shandong Academy of Occupational Hygiene and Occupational Medicine, Henan Institute of Occupation Medicine, Liaoning Occupation Disease Prevention and Treatment Center, China Petroleum & Chemical Engineering Survey And Design Association, National Power Sector Labor Environment Supervision And Inspection General Station

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The publication of standers replaced by this stander: Standard -101-56, GBJ 1-62, TJ 36-79, GBZ 1-2002

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#### 工业企业设计卫生标准

#### 1 Scope

This standard specifies the basic hygiene requirements of industrial enterprise location and general planning, working space, work-related auxiliary rooms and emergency rescue.

This standard is applicable to hygienic design and evaluation of occupational hazards, extension and renovation projects, technology renovation and introduction projects (hereinafter is called construction project) in China.

The hygiene design and occupational disease hazard evaluation for the construction projects of institutions and other economic organizations, and the design of Years-lasting and large-scale construction project with possible or large occupational disease hazards, temporary industrial enterprise design for special purpose, or general planning of industrial park may reference this standard.

#### 2 Normative References

The following standards contain provisions which, through reference in the following text, constitute provisions of this standard. For dated reference, subsequent amendments (excluding correction) to, or revisions of, any of these publications do not apply. However, parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. For undated references, the latest edition of the normative document referred to applies. For undated references, the latest edition of the normative document referred to applies.

GBZ 2.1 Occupational exposure limits for hazardous agents in the workplace part 2:physical agents

GBZ 158 Hygienic engineering measures for preventing and controlling occupational poisoning in the work place

GBZ/T 195 GBZ/T 195 The usage criterion of personal protective equipment against occupational diseases in the organic solvents workplace

GBZ/T 223 Setting standers for toxic-gas testing warning device in workplace

GB 3095 Ambient air quality standard

GB 16297 Comprehensive Emission stander of Air Pollutants

GB/T 16758Classification and technical conditions of the exhaust hood

GB 18083 Health protection zone standards for industrial enterprises by noise

GB/T 18664 Selection, use and maintenance of respiratory protective equipment

GB 18871 Basic standards for protection against ionizing radiation and for the safety of radiation sources

GB 50019 Code for design of heating ventilation and air conditioning

GB/T 50033 Standard for Daylighting Design of Buildings

GB 50034 Standard for Artificial Lighting in Industrial Plant Design

GB 50073 Code for design of clean room

GB 50187 Code for Design of General Plan of Industrial Enterprises



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