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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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**Dietary guide for workers in hot environment
(English Translation)**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

1 Scope

This standard specifies the recommended intake of dietary energy and main nutrients for high temperature workers and dietary guidelines.

This standard is applicable to the dietary guidance for high temperature workers.

2 Normative references

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

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

GJB 1637-1993 Water and salt supply for military workers in thermal environment

3 Terms and definitions.

The following terms and definitions apply to this document.

Wet bulb black bulb temperature WBGT index A basic parameter for comprehensive

evaluation of the thermal load of the work environment with human exposure, in degrees Celsius (°C).

Hot work

In the production process, the average WBGT index of the work site is equal to or greater than 25 °C.

Sweat in working

The amount of water lost through the skin by the operator during work.

Meal during work

Meals for workers during work.

4.1 Energy

When the WBGT index of the working environment exceeds 25 °C, every time the temperature of the working place increases by 1 °C, the energy intake should increase by 0.5% compared with the general population;

The energy of Chinese food should reach 30% of the total energy.

4.2 Nutrients

The recommended intake of main nutrients is shown in Table 1.

5.1 Reasonably add water

On the basis of the general population's balanced diet guidelines, employees working with high temperatures need to drink moderate amounts of water and drink small amounts for multiple times.

5.2 Eat more vegetables and fruits

Increase the intake of vegetables and fruits, and provide sufficient vitamins and minerals to supplement the loss in sweat.

5.3 Increase high-quality protein intake

Increase the intake of high-quality protein foods to supplement the consumption of high-temperature work.

5.4.1 Water

Drink water in the workplace according to the working temperature and intensity (see Appendix A for details), or according to the amount of sweat. It is advisable to choose dilute

brine for supplement;

When sweating > 3 L/d, electrolyte-carbohydrate drinks should be supplemented (see Appendix B for details). The temperature of the water or drink should be around 10 °C. recommend Drink small amounts for multiple times,.200 mL to 300 mL each time.

5.4.2 Vegetables and fruits

Daily intake of vegetables is not less than 500 g and fruits are not less than 400 g. It is advisable to choose varieties rich in potassium, vitamin C and B vitamins (see See Appendix C, Appendix D, Appendix E).

5.4.3 High-quality protein food

Eat more high-quality protein foods such as fish, shrimp, eggs, milk, soybeans and lean meat in moderation. It is recommended that the daily milk intake is not less than 300 g, and the daily intake Import soy products equivalent to 50 g of soybeans.

5.5 Reasonably match class Chinese meals

Class Chinese meals should be reasonably matched to meet the energy needs of the workplace. It is advisable to reduce the intake of fat; the food should be seasoned appropriately and used outside the high temperature environment Meals to promote appetite and digestion and absorption.

Appendix A

(Normative appendix) Suitable drinking water for high temperature workers the water consumption per hour for different WBGT indexes and labor intensity are shown in Table A.1.

Note: The data for moderate and severe labor comes from GJB 1637-1993.

Appendix B

(Normative appendix) Main ingredients of recommended beverages for hot workers the main components of electrolyte-carbohydrate drinks are shown in Table B.1.

Appendix C

(Informative appendix) Common potassium-rich foods Common potassium-rich foods are shown in Table C.1.

Appendix D

(Informative appendix) Common foods rich in vitamin C Common foods rich in vitamin C are shown in Table D.1.

Note: The above data comes from "Food Composition Table.2002" and "Food Composition

Table.2004".

Appendix E

(Informative appendix) Common foods rich in B vitamins Common foods rich in vitamin B1 are shown in Table E.1.