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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 22188.4-2023

Ergonomic design of control centres - Part 4: Layout and dimensions of workstations

控制中心的人类工效学设计 第4部分：工作站的布局和尺寸

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Standardization Administration of the PRC

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part

1.Structure and Drafting Rules of Standardization Documents" Drafting. This document is Part 4 of GB/T 22188 "Ergonomics Design of Control Centers". GB/T 22188 has released the following part.

1.Design principles of control center;

2.Arrangement principles for control supporting rooms;

3.Control room layout;

4.Workstation layout and dimensions. This document is modified using ISO 11064-4.2013 "Ergonomic design of control centers Part

4.Workstation layout and size". Compared with ISO 11064-4.2013, this document has made the following structural adjustments.

---The first paragraph of Chapter 5 is numbered 5.1, and the numbers of each subsequent article are postponed;

---The first paragraph of

5.3 is numbered 5.3.1, and the number of each subsequent paragraph is postponed;

---The first paragraph of Chapter 6 is numbered 6.1, and the number of each subsequent paragraph is postponed;

--- Paragraph 2 of Chapter 6

6.1 corresponds to Paragraph 1 of

6.1.1 in ISO 11064-4.2013;

1 Scope

GB/T 22188.4-2023 is Part 4 of the Chinese series on the ergonomic design of control centres, and covers the layout and dimensions of the workstation. A control room operator sits at the same desk for twelve hours watching displays that mostly say nothing is wrong, and must then act correctly in the minutes when something is: the geometry of the workstation decides whether the alarm is seen, whether the annunciator is heard over the ventilation, and whether the operator can still concentrate at the end of the shift. The standard sets the considerations for the preliminary design of the workstation layout, the user, visual task, auditory task and working posture factors, the layout requirement factors, and the dimensions for seated and for standing control workstations, with an informative annex giving a consistency matrix. It took effect on 1 March 2024.

This document gives ergonomic principles, recommendations and requirements for the design of control center workstations. This document focuses on controlling workstations layout and dimensions. This document is mainly applicable to seated visual display workstations and also to standing control center workstations. These different types of controls Manufacturing workstations are commonly found in applications such as transportation control centers, process control centers, and security facility systems. Most of these jobs now Stations are integrated with flat-panel displays for information presentation.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 1251.2-2006 General requirements, design and inspection of ergonomic hazard visual signals (ISO 11428.1996, IDT)

GB/T 5703-2023 Anthropometric basic items for technical design (ISO 7250-1.2017, MOD)

GB/T 22188.3-2010 Ergonomic design of control centers Part

3 Terms and definitions

The following terms and definitions apply to this document.

3.1 control workstation controlworkstation Single or multiple work locations where control and monitoring functions are implemented, including all equipment (e.g., computers and communications terminals) and furniture Inside. [Source: GB/T 22188.3-2010, 3.7, with modifications]

3.2 eye movement coneofixation Keep your head still and move your eyes to see the range of angles your sight can cover.

3.3 Legibility Enables users to unambiguously identify individual characters or symbols presented in a context-free format. [Source: ISO 9241-302.2008,3.3.35]

5 Workstation layout and

ISO 9241-410.2008 Ergonomics of human-system interaction Part 410: Design criteria for physical input devices (Ergonomicsof