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

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General requirements for the safety protection of spacecraft

航天器安全防护通用要求

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard is proposed and managed by the National Aerospace Technology and its Application Standardization Technical Committee (SAC/TC425). This standard was drafted. Beijing Satellite Environmental Engineering Research Institute, China Space Technology Research Institute Communications Satellite Division, Tsinghua University. The main drafters of this standard. Yi Wangmin, Zhang Bin, Wei Yuexi, Liu Yugang, Feng Wei, Wan Bile, Xing Shuai, Zhong Hongxian, Bian Yuchuan, Dai Bingbing, Zhang Liwei, Liu Guangtong, Li Changxun, Tang Xiaoqiang, Li Bin, Liu Fuquan. General requirements for spacecraft safety protection

1 Scope

China's national general requirements for spacecraft safety protection. It specifies the terms

and definitions, the abbreviations and the general requirements, beginning with the environment. Spacecraft safety divides into hazards to the people who build, transport and launch the vehicle, and hazards the vehicle presents in orbit. On the ground the concerns are the propellants - hydrazine and nitrogen tetroxide are acutely toxic and hypergolic, igniting on contact with each other - along with pyrotechnics, pressurised systems, radioactive sources and high energy batteries. In orbit the concerns are the vehicle's effect on everything else: whether it can be disposed of at end of life, whether its batteries or propellant tanks might rupture and produce debris, and whether it can be tracked. A general requirements standard is what makes those considerations part of the design from the start rather than a review to be passed before launch.

This standard specifies the general requirements and detailed requirements for the safety protection of the spacecraft assembly, test, test and launch site. This standard applies to the assembly, test, test and launch field steps of spacecraft such as satellites, manned spacecraft, space stations, space detectors, etc. Paragraph product and personnel safety protection, micro-nano satellites, etc. can be referred to.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article. Pieces. For undated references, the latest edition (including all amendments) applies to this document.

GB/T 2099.1 Household and similar plugs and sockets - Part 1. General requirements

GB/T 6067.1-2010 Safety rules for lifting machinery - Part 1. General

GB 11930 Radiation protection regulations for operating unsealed sources

GB/T 29083 Safety requirements for flammable, explosive, toxic and radioactive sources of spacecraft

GB/T 29085-2012 Satellite anti-pollution technical requirements

GB/T 32301-2015 General requirements for spacecraft packaging and transportation

GB/T 32304-2015 Aerospace electronic products electrostatic protection requirements

GB 50016 Building Design Fire Code 3 terms and definitions, abbreviations

3.1 Terms and definitions The following terms and definitions apply to this document.

3.1.1 Excess matter foreignobjectdebris A substance in the product that is externally entered or internally produced that does not conform to the specified state of the product.

3.1.2 Protective member In order to protect spacecraft products during assembly, testing, and transportation, additional components and components are required. For example. plugging, protective caps, etc.

3.2 Abbreviations The following abbreviations apply to this document. ESDS. Electrostatic Discharge Sensitive OSR. optical solar mirror, also known as secondary surface mirror (optical solar reflector)

4.1 Environment

4.1.1 The final assembly, test and test area shall meet the following requirements.

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