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**Safety operation management regulation for hydrogen fueling
facilities of hydrogen vehicles**

氢能车辆加氢设施安全运行管理规程

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1 Scope

This guiding technical document specifies the management rules on the safe operation, the personnel, equipment safety, gas quality, production operations, supervision and inspection and the emergency plan of the hydrogen fuelling facilities of hydrogen vehicles. This guiding technical document applies to the management of the safe operation of the facilities involved in providing hydrogen fuelling services to hydrogen vehicles using high-pressure gaseous hydrogen, liquid hydrogen or hydrogen-enriched gas as fuel.

This technical guidance document specifies the management regulation involving the safety operation, personnel, equipment safety, gas quality, production operation, supervision and inspection, and emergency plans for hydrogen fueling facilities of hydrogen vehicles. This technical guidance document applies to the safety operation management of facilities involved in providing hydrogen fueling services for hydrogen vehicles with high-pressure gaseous hydrogen, liquid hydrogen, and hydrogen enriched compressed nature gas as fuel.

2 Normative references

The following referenced documents are indispensable for the application of this document.

For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies. Provisions on special equipment accident reporting, investigation and handling (Order No. 115 of the General Administration of Quality Supervision, Inspection and Quarantine) Regulations on the safety management of hazardous chemicals Safety production license regulations Regulations on fire safety management of organs, organizations, enterprises and institutions (Order No. 61 of the Ministry of Public Security of the People's Republic of China)

3 Terms and definitions

The following terms and definitions are applicable to this document.

3.1 Hydrogen fueling facilities

4.2.2 The first person in charge of the operating unit shall be the person in charge of unit safety, who is responsible for organizing the formulation and implementation of the unit's safety production rules and regulations and operating procedures, and is primarily responsible for the unit's safety accidents.

4.2.3 The operating unit shall have a safety officer on duty for each shift, who is responsible for supervising and inspecting the implementation of safety measures and correcting violations.

4.3 Additional safety operation management For additional safety operation management related to the hydrogen fueling station, refer to Appendix A.

5 Personnel management

5.1 Safety education The operating unit of the hydrogen fueling facilities shall carry out the necessary education and training on the safety production knowledge for the employees, so that the employees can be familiar with the relevant safety production rules and regulations and safety operation procedures, and master the safety operation skills of the position. The operating unit shall urge the employees to strictly implement the safety production rules and regulations and safety operation procedures, and truthfully inform the employees of the dangerous factors, preventive measures and accident emergency measures existing in the workplace and the job. The content and schedule of safety education shall be implemented in accordance with the relevant content of safety education management regulations.

5.2 Technical training

5.2.1 The operating unit of the hydrogen fueling facilities shall provide professional technical education and training to the operators, and confirm that the operators have obtained the operating qualifications for the relevant positions.

5.2.2 Operators involved in the operation of hydrogen fueling facilities shall hold a valid operation certificate before they can operate. It is strictly forbidden for those who do not have the refueling certificate or those with inconsistent operation certificate to carry out related operations.

5.2.3 Where the operator's operation certificate does not match the operation content, or the operation certificate has expired, it will be regarded as not having the operation certificate for this operation.

5.2.4 The managers, technical leaders, equipment managers and operators of the operating unit of the hydrogen fueling facilities shall receive professional technical training from the corresponding professional training institutions, and obtain the qualification certificate issued by the relevant department.

5.3 Assessment and inspection According to the safety education and training management regulation, the employees' knowledge and practical operation of fire protection, dangerous goods safety and hydrogen fueling operation shall regularly checked and assessed. Those who fail the assessment shall be laid off for retraining, and take up the post with a certificate only after passing the training. Employees who are not qualified for safety production education and training are not allowed to work.

6 Equipment safety management

6.1 General The operating unit of the hydrogen fueling facilities shall, in accordance with the relevant national equipment safety standards, regulations and systems, formulate and improve the equipment safety management system and regulations of its own unit, and formulate equipment safety operation procedures.

6.2 License confirmation

6.2.1 The use, maintenance and replacement of equipment related to hydrogen fueling facilities shall comply with the relevant national licensing management regulations such as the Regulations on Safety Supervision of Special Equipment, Regulations on the Safety Management of Hazardous Chemicals, and Regulations on Safety Production Licenses.

6.2.2 The use of pressure vessels, safety devices and other equipment that requires the management of production license, use license, etc. shall be provided with valid qualification certificates.

6.2.3 The replacement or addition of safety-related equipment accessories shall comply with relevant safety management regulations.

6.2.4 Before entrusting external units to carry out construction operations such as equipment maintenance and installation, the qualifications of the construction unit and personnel shall be confirmed; units and personnel that do not meet the qualifications shall

not be allowed to perform safety-related operations for the unit.

6.3 Running and using

6.3.1 Equipment operators shall receive relevant equipment use training and safety education, be familiar with the equipment operation requirements and procedures, and

8 Production operation management

8.1 System, process and regulation The operating unit of the hydrogen fueling facilities shall formulate relevant safety operation management system, process, specification, etc., and strictly abide by them. The establishment of system norms shall take the protection of people's safety as the main establishment principle. According to the structure, configuration, scale and other characteristics of different hydrogen fueling facilities, scientifically and rationally formulate various safety management systems and specifications, and ensure that the system is reasonable, effective and feasible. For the preparation of the quality and safety management system for hydrogen fueling stations, refer to Appendix B; for common forms, refer to Appendix C.

8.2 Safety operation management system of hydrogen fueling facilities

8.2.1 Operation site safety management system According to the structural characteristics, equipment requirements, fueling mode and fueling scale of the unit's hydrogen fueling facilities, combined with the physical and chemical characteristics of high-pressure hydrogen or liquid hydrogen, the operation site safety management system shall be formulated, to put forward requirements for running operation, inspection, recording, shift handover, etc., and standardize the safety behavior of operators.

8.2.2 Fire safety management system In accordance with the requirements of the Regulations on Fire Safety Management of Organizations, Groups, Enterprises, and Institutions, formulate fire extinguishing plans, fire protection files, education programs, etc., deploy volunteer firefighters, equip corresponding firefighting equipment, and conduct regular fire drills and other content.

8.2.3 Equipment safety management system In accordance with the management regulations of special equipment and hazardous chemicals and the characteristics of the hydrogen fueling facilities of the unit, propose safety regulations and management procedures for the operation, use, maintenance, emergency repair, replacement, deactivation, resumption of operation, scrapping, and spare parts management of main production equipment and safety equipment.

8.2.4 Staff safety management system Combined with the characteristics of the hydrogen fueling facilities of the unit, put forward safety requirements for the staff, formulate a staff safety management system to standardize the safety requirements and supervise the