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Code for design of water supply engineering using  
high-turbidity raw water

**高浊度水给水设计规范**

Issued on April 22, 2011

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Issued by Ministry of Housing and Urban-Rural Development of the People's  
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**The Industrial Standard of the People's Republic of China**

Code for design of water supply engineering using  
high-turbidity raw water

**CJJ40-2011**

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About publishing Industrial Standard notice of *Code for Design of  
Water Supply Engineering Using High-turbidity Raw Water*

Hereby approves the *Code for Design of Water Supply Engineering Using High-turbidity Raw Water* for the industrial standard, numbered CJJ 40 -2011. It is put into effect from January 1, 2012. Among which, Article 3.1.7, 4.1.8, 6.1.4, 6.3.5, and 7.3.8 are the mandatory provision and shall be strictly implemented. Original industrial standard *Code for Design of Water Supply Engineering Using High-turbidity Raw Water* CJJ 40-91 is repealed simultaneously.

The Code is published and distributed by China Building Industry Press and organized by standard rating research institute of our department.

**Ministry of Housing and Urban-Rural Development of the People's  
Republic of China**  
April 22, 2011

## Foreword

According to the requirements of *Notice on Issuing <Standard Formulation, Revision Plan (first batch)> of the Engineering Construction Standardization Association in 2008* (JB[2008] No.102), the specification preparation team modifies the Code after extensive research, conscientiously summary of practical experience, reference to relevant international standards and advanced oversea standard, and extensive opinion seeking. The main technical contents of this Code: 1. General Provisions; 2 Terms and Symbols; 3. Water Supply System; 4. Water Intake Works; 5. Water Treatment Process; 6. Water Treatment Agent; 7. Sedimentation (Clarification) Structure; 8. Sludge Discharge; 9. Contingency Measures.

The main contents revised in this time are as follows:

1. The applicable range of the Code is extended from the original application to high-turbidity raw water of the Yellow River to the application to water supply design of high-turbidity raw water nationwide; the high-turbidity raw water referred in the Code currently includes the high-turbidity raw water with sharp interface settling and the high-turbidity raw water without sharp interface settling.
2. Comprehensively summarizing the new technology and new experience in this field of technology in our country since the issuance of original Code, especially the water source intake and optimization of the pre-treatment process system, new content in connection with sludge transportation and treatment and disposal, and relevant design parameters.
3. Safe water supply and contingency measures in the new high turbidity water in water supply design

The articles written in bold-face in this Code are the mandatory provisions, which shall be strictly implemented.

Ministry of Housing and Urban-rural Development is responsible for management and interpretation of mandatory provisions, Northwest China Municipal Engineering Design & Research Institute Co., Ltd. is responsible for the interpretation of specific technical contents. If you have any comments or suggestions in the process of implementation, please send to Northwest China Municipal Engineering Design & Research Institute Co., Ltd. (Address: No. 459 Dingxi Road, Lanzhou City, Gansu Province, postal code: 730000).

Chief editorial units of the Code: Northwest China Municipal Engineering Design & Research Institute Co., Ltd.

Participated units of the Code: Southwest China Municipal Engineering Design & Research Institute

Northeast China Municipal Engineering Design & Research Institute

Lanzhou Veolia Water (Group) Co., Ltd.

Lanzhou Jiaotong University

Harbin Institute of Technology

Xi'an University of Architecture and Technology

Main drafters of this Code: Kong Lingyong Dai Zhihe Ma Xiaolei Mao Jicheng

Li Yansong Fu Zhongzhi Liu Sun Xiaoxia

Zhang Chen Shuqin Wu Fuping

Luo Wanshen

Main reviewers of this Code:	Jianfeng			
	Hao Lidong	Yuan Yixing	Jia Wanxin	Zhang Weimin
	Hao Junguo	Xiong Yihua		
	Shen	Zhang Xiaojian	Wan	Liu Yancheng
	Qiuchang		Yucheng	
	Lv Qizhong	Lv Pinxiang	Zhang Zhi	Wu Daoji
	Qie Yanqiu	Jia Ruibao	Kang	
			Wangru	

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## **1. General Provisions**

**1.0.1** In order to improve the design quality of high-turbidity raw water supply engineering, regulate the design process and design parameters, this Code is formulated.

**1.0.2** This Code applies to newly-built, expanded or renovated towns whose source of water is high turbidity raw water and industrial areas of permanent water supply engineering design.

**1.0.3** The treatment technology using high-turbidity raw water in this Code refers to the water purification process in which the high-turbidity raw water is processed to the extent that it can meet requirement of the inflow quality through pre-treatment and single stage, double (or multi) sedimentation (clarification). Subsequent processes such as water filtration, disinfection, deep processing should be consistent with provisions of existing relevant national standards.

**1.0.4** The design of water supply engineering using high-turbidity raw water shall be aimed to improving assurance rate of the urban water supply, and shall correctly deal with the relationship between the technology and economy, the system and local, the complete process and single structure, and other links, so as to make the whole system safely and economically operate, and be capable of response to the sudden incidents.

**1.0.5** The design of water supply engineering using high-turbidity raw water shall meet the Code, but still should be consistent with provisions of existing relevant national standards.



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