

向家坝右岸地下电站尾水系统关键技术

樊启祥，刘益勇，易 志*

(中国长江三峡集团公司，北京 100038)

KEY TECHNOLOGY OF TAILRACE SYSTEM AT XIANGJIABA RIGHT-BANK UNDERGROUND POWERHOUSE

FAN Qixiang, LIU Yiyong, YI Zhi*

(China Three Gorges Corporation, Beijing 100038, China)

摘要	参考文献	相关文章
----	------	------

Download: [PDF](#) (955KB) [HTML](#) 1KB Export: [BibTeX](#) or [EndNote](#) (RIS) [Supporting Info](#)

摘要 向家坝右岸地下电站尾水系统工程规模巨大，受地形和地质条件的限制，工程的设计和施工面临诸多技术难题。根据工程实际情况，通过数值计算、物理模型试验等手段，制定“变顶高尾水洞”、“两机合一洞”等较为先进的设计方案，以及“先挂顶，再下挖”、“洞内开洞”等较为特殊的施工方法；利用安全监测指导施工，确保工程安全；开挖结束后，围岩变形趋于稳定，顶拱实测最大变形为13.25 mm，与理论值15.72 mm较为接近，说明开挖支护的设计参数合理，施工程序和方法达到预定目的。

关键词： [水利工程](#) [水工设计和施工](#) [地下洞室](#) [向家坝水电站](#)

Abstract: The engineering scale of tailrace system at Xiangjiaba right-bank underground powerhouse is very huge. Restricted by the terrain and geological conditions, the design and construction face lots of difficult technological problems. According to this actual situation and by means of numerical calculation and physical model test, some advanced design plans such as tailrace tunnel with the ceiling height change and 2 adits merged to 1 tunnel, are adopted; and some special construction plans such as top arch lining first, then excavation down, and small holes in large holes, are adopted. Safety monitoring guides construction to ensure the safety of engineering. Deformation of surrounding rock gradually inclines to be stable after excavation. The maximum measured deformation at top arch is 13.25 mm, close to the theory value of 15.72 mm. The comparative result shows that the design parameters of excavation and support are reasonable; and the sequence and method of construction are successful.

Keywords: [hydraulic engineering](#) [hydraulic design and construction](#) [underground cavern](#) [Xiangjiaba hydropower station](#)

Received 2012-05-04;

引用本文：
樊启祥，刘益勇，易 志.向家坝右岸地下电站尾水系统关键技术[J] 岩石力学与工程学报, 2012,V31(12): 2377-2388

Service

[▶ 把本文推荐给朋友](#)
[▶ 加入我的书架](#)
[▶ 加入引用管理器](#)
[▶ Email Alert](#)
[▶ RSS](#)

作者相关文章