

REFERENCE CASE RAIL



Accident investigation and risk management for Cologne's metro system

Kölner Verkehrs-Betriebe AG required accident investigation and risk management for their Cologne North-South Metro Line construction project. That's why they turned to TÜV Rheinland.

Basic facts

Client	Kölner Verkehrs-Betriebe AG
Timeframe	2009 - ongoing
Project location	Cologne, Germany
Main services	<ul style="list-style-type: none">▪ Clarification of the facts surrounding an accident▪ Inspection services▪ Implementation of a risk management system

Initial situation and requirements

Kölner Verkehrs-Betriebe AG (KVB) is one of the largest public transportation companies in Germany. The company runs public transportation in Cologne and is building the North-South Metro Line, which bisects the city's historic old town. An accident during excavation of a building pit resulted in the total destruction of the renowned city archive. The company required extensive independent investigations and analysis to determine the reasons for the accident and any resulting issues, and to introduce a geotechnical risk management system for all future geotechnical works on the metro line.



Solutions, results

Due to its extensive experience in inspection services and technical risk management for complex civil engineering projects, TÜV Rheinland was the preferred choice for the KVB.

Immediately following the accident we provided the KVB with a comprehensive approach, which satisfied their complete set of requirements and included clarification of the facts about the disaster. We also urgently inspected and analyzed about 500 neighboring buildings to verify their stability.

We then developed a risk management system for all geotechnical works on the North-South Metro Line to prevent further accidents during construction. This included periodic inspection of the sites by independent engineers as well as reviewing risk evaluation and assessment by the operating companies and the construction supervision units, with final inspections provided by our senior experts.

We also established a workflow system to ensure that no future risk is ignored during the construction. No major accidents have occurred since the implementation of this system and due to its favorable experience with our geotechnical risk management system, KVB has extended its use to all construction works on the North-South Metro Line.



Benefits for the client

TÜV Rheinland helped KVB AG to:

- Implement a risk management system to reduce future accidents.
- Reduce costs by preventing possible incidents.
- Qualify claims and avoid legal action against company employees due to the disaster.

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Did you know?

We are also providing third-party approval of the electrical and ventilation systems and final assembly of the technical equipment for the North-South Metro Line.

About TÜV Rheinland:

Founded 140 years ago, TÜV Rheinland is a global leader in independent inspection services; ensuring quality and safety for people, the environment, and technology in nearly all aspects of life.

We inspect technical equipment, products and services, oversee projects and help to shape processes for companies around the world. Since 2006 we have been a member of the United Nations Global Compact to promote sustainability and combat corruption.

With our wide knowledge of technical risk management for complex civil engineering projects, we can help you maintain a continuous overview of the current construction risks by individual assessment and site analysis.

We offer you a comprehensive range of services, including risk analysis, scrutiny of monitoring procedures, the internal preparation of complex construction projects, the adaptation of design, measurements, certificates and the compilation of risk reports.