



CASE STUDY

Root Cause Analysis of Water Tank Collapse



London – HQ | Amman – Jordan | Abu Dhabi – UAE | Dubai – UAE | Cairo – Egypt | Casablanca – Morocco

A utility company in the Middle East faced a critical incident when a firefighting water tank collapsed at one of their key facilities. This marked the third collapse of similar tanks, prompting an urgent investigation into the cause of the failure and prevent further incidents. The company engaged CEERISK to investigate the root cause of the latest collapse and provide recommendations to safeguard their broader infrastructure from similar incidents.

Our investigation focused on the failed tank, examining its design, operational history and maintenance practices. We carried out a detailed evaluation of the site conditions, inspection protocols and the failure mechanisms. Through a comprehensive root cause analysis, we identified the key factors that contributed to the structural failure of the tank.

Our findings highlighted gaps in the maintenance and monitoring practices, which allowed critical conditions such as pitting corrosion to go undetected until failure occurred. We provided targeted recommendations to improve maintenance strategies, enhance inspection protocols and strengthen the resilience of similar tanks across their infrastructure. These measures were designed to address the immediate issue whilst providing long-term solutions to mitigate future risks.

Our analysis provided a clear understanding of why the collapse occurred and how to proactively prevent such incidents in the future. The recommendations offered a pathway to enhance the safety and reliability of their systems, ensuring sustained operational resilience.



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