Kleinschmidt

Rope Access

Explore our Experience and Capabilities!

Safe. Efficient. Precise Access for Dam and Water Infrastructure

Kleinschmidt Associates provides **rope access services** that enable our engineers and technicians to safely and efficiently reach areas of dams and water infrastructure that are most difficult to inspect or evaluate. Many critical structural components, **spillways, gates, penstocks, and surge towers**—are located in steep or confined environments where traditional access methods such as scaffolding, cranes, or heavy lifts may be impractical or cost-prohibitive.

Our rope access program provides a **safe, efficient, and data-driven** solution to these challenges, allowing our engineers to perform **inspections, measurements, and condition assessments** while minimizing disruption to facility operations.

Kleinschmidt's rope access engineers are certified through the **Society of Professional Rope Access Technicians (SPRAT)** or the **Industrial Rope Access Trade Association (IRATA)** and trained in accordance with our firm-wide safety protocols. Every project begins with a comprehensive Job Hazard Analysis (JHA) and an access plan that aligns with the client's operational and safety requirements. Our rope access program is built on the same foundation that defines all our work: **technical rigor, detailed planning, and an unwavering commitment to safety.**

Key Capabilities

- **SPRAT- and IRATA-certified engineers** specializing in dam safety and hydropower engineering
- **Safe access** to confined, elevated, or overwater structures for inspection, measurement, and evaluation
- **Integration** with Kleinschmidt's dam safety, hydraulic, and structural assessment programs
- **Rapid deployment** for emergency evaluations or planned condition assessments
- **Rigorous adherence** to Kleinschmidt's safety culture and risk-management protocols

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Where Rope Access Makes the *Difference*

Kleinschmidt's rope access engineers provide **up-close observation and hands-on data collection** to support precise condition assessments and engineering analyses. Rope access enables our engineers to perform the **field evaluation, data collection, analysis, and reporting** within a single, integrated workflow. This direct approach enhances accuracy, efficiency, and communication—reducing the potential for information loss between field collection and engineering interpretation.

- **Penstock Inspections and Structural Evaluations** Our engineers use industrial rope access techniques to conduct **detailed condition assessments** of penstock shells, welds, rivets, supports, coatings, and appurtenant structures. These evaluations provide critical input to rehabilitation design and long-term maintenance planning.
- **Tainter Gate and Spillway Structure Assessments** We have **significant experience with the FERC Tainter Gate Initiative and Appendix L inspection** guidelines, conducting up-close assessments of hydraulic gates, trunnion assemblies, and spillway piers. Rope access allows our engineers to directly measure, photograph, and document key components, providing actionable data for continued safe operation.

12
Certified Professional Engineers

208
Tainter Gate Inspections

14
Surge Tank Inspections

57
Penstock Inspections

Integrated Solutions

Rope access work at Kleinschmidt is not performed in isolation—it is part of a **coordinated engineering process** that includes dam safety reviews, hydraulic and structural modeling, rehabilitation design support, and long-term monitoring. Our ability to blend **safe field execution with advanced analysis** allows us to deliver clear, defensible, and actionable results.

This capability extends from Kleinschmidt's **Dam Safety and Water Infrastructure Engineering** practice, where our multidisciplinary teams combine **hydrology, hydraulics, structural analysis, and regulatory expertise** to ensure the ongoing reliability and performance of water infrastructure assets.

Whether planning a periodic inspection or responding to an urgent evaluation need, **Kleinschmidt's rope access engineers** bring the technical depth, safety culture, and field experience to get the job done—**efficiently, precisely, and safely.**

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