

USE CASE

Nuclear Decommissioning

Expert Program Management for Nuclear Decommissioning: Ensuring On-Budget, On-Schedule Delivery with Minimized Risk

Background

Nuclear decommissioning involves the safe dismantling and decontamination of nuclear facilities after they have ceased operations.

The decommissioning process is complex and requires compliance with international standards, including those set forth by the Nuclear Decommissioning Authority (NDA). This process involves carefully dismantling nuclear infrastructure, disposing radioactive waste, and ensuring occupational health and safety measures for the workforce.

Without effective program management, such projects face the risk of exceeding cost estimates and risk regulatory penalties due to delays or safety breaches.

Challenge

Accurate cost, schedule, and risk analysis are always challenging in complex projects, such as decommissioning efforts and new construction related to decommissioning. Without a quality baseline, managing a project and meeting cost and schedule goals becomes difficult because the scope, resources, durations, productivity, risks, and other factors are not clearly understood. This lack of clarity can lead to cost or schedule overruns and may result in requests for additional funding.

To overcome these challenges, many companies choose Acuity's trusted Program Management Services.

Nuclear Decommissioning: A Use Case

A power generation client sought Acuity's expertise in cost, schedule, and risk analysis for nuclear decommissioning projects. Relying on site contractors for these inputs, they lacked independent reviews, leading to inaccurate baselines and project failures. To improve planning and execution, they turned to Acuity International's Program Management Services for expert-driven solutions, including:

- Accurate cost estimation and ongoing cost control to manage lifecycle costs.
- Benchmark data to inform decision-making based on past decommissioning projects.
- Risk analysis and mitigation strategies to ensure safety and prevent project delays.
- Independent reviews and evaluations to ensure unbiased oversight and accountability.

Our electronic case management platform provided real-time case tracking, ensuring transparency and efficiency. This approach expedited treatment, reduced lost time, improved communication, and delivered financial savings.

Summary

Acuity's Program Management Services deliver precise cost, schedule, and risk management, ensuring successful outcomes. Whether in the energy sector, defense, or other industries, our expertise can be tailored to effectively manage any complex, large-scale project.

Industry

Power Generation

Challenges

Nuclear decommissioning is a highly complex process involving the safe dismantling and decontamination of facilities, compliance with international standards, and responsible disposal of radioactive waste. Robust program management is essential to prevent cost overruns, delays, and regulatory penalties.

Solutions

Acuity's Program Management Services provide:

- Comprehensive cost, schedule, and risk analysis for decommissioning and project lifecycle control.
- Benchmarking based on historical nuclear decommissioning data for accurate cost and schedule estimation.
- Risk analysis and mitigation, including independent reviews for accountability.
- Compliance with estimating requirements, including the NDA framework.



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Solution

Acuity's comprehensive, integrated Program Management Services ensure that nuclear decommissioning projects are completed on time, within budget, and to the highest quality standards.

The client selected our cost, schedule, and risk services due to our proven expertise in managing complex projects and our extensive experience with best practices and standards, including those established by the NDA.

Our comprehensive approach included:

- **Cost Estimation:** Leveraging advanced methodologies and industry benchmarks to develop accurate and reliable cost estimates.
- **Scheduling:** Creating and maintaining detailed project schedules to ensure timely execution.
- **Benchmarking:** Comparing performance against similar projects to validate estimates and identify efficiencies.
- **Earned Value Management (EVM):** Monitoring project performance and progress through established EVM practices.
- **Risk Mitigation:** Proactively identifying and addressing potential risks to minimize impact on cost and schedule.

We implemented robust project controls to monitor the schedule and budget, ensuring the decommissioning project remained on track and within scope. In addition, external reviews and independent cost assessments were conducted to provide the client with an extra layer of oversight and assurance.

Benefits

Through our expert-driven approach and commitment to industry standards, the client successfully maintained control over costs, schedules, and risks throughout the decommissioning process. This ensured transparency, accountability, and project success.

With Acuity's Program Management Services, the client realized the following benefits:

- **Cost Control:** Accurate cost estimation and ongoing project controls helped avoid budget overruns.
- **Risk Analysis:** Understanding discrete risks and their impacts on costs and durations ensured accurate contingency planning and facilitated risk mitigation.
- **Transparency:** Independent reviews and external oversight ensured accountability and provided the customer with reliable, unbiased cost, schedule, and risk analysis.
- **End-to-end Solution:** Provided cost, schedule, and risk analysis solutions during the entire decommissioning process, from initial planning to final closure.

Our services ensured the decommissioning process stayed on schedule and within budget. By leveraging historical benchmarking data and applying rigorous cost and risk management, the customer minimized project risks and avoided significant cost overruns. Our comprehensive approach delivered accurate and credible cost and schedule estimates.

Versatile Solutions for Complex Cases Across Industries

Acuity's Program Management Services extend beyond nuclear facilities to other industries managing complex decommissioning efforts, infrastructure shutdowns, or large-scale new construction projects.

Our end-to-end program management support delivers precise cost, schedule, and risk management, ensuring successful outcomes. Whether in the energy sector, defense, or other industries, our expertise can be tailored to effectively manage any complex project.

Acuity Program Management Solutions

For more than four decades, Acuity has provided government and commercial clients with high-quality program management solutions.

By applying sustainable business practices, proven project management techniques, and effective cost analysis and engineering principles, we help our clients manage costs, risks, and schedules.

Services provided:

- Cost and Schedule Management
- Benchmarking using historical data
- Independent Cost Estimating
- Risk Analysis and Risk Mitigation
- Earned Value Management (EVM)
- Construction and Project Controls
- Lifecycle Cost Management
- External Independent Reviews



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