

US NUCLEAR

CONTENTS

INTRODUCTION	3
CAPABILITIES	4
EXPERTISE	5
EXPERIENCE	7
BEYOND ENGINEERING	9
GLOBAL MARKET AND SERVICES	10
PEOPLE	11
PRIORITIES	12
VALUES	13

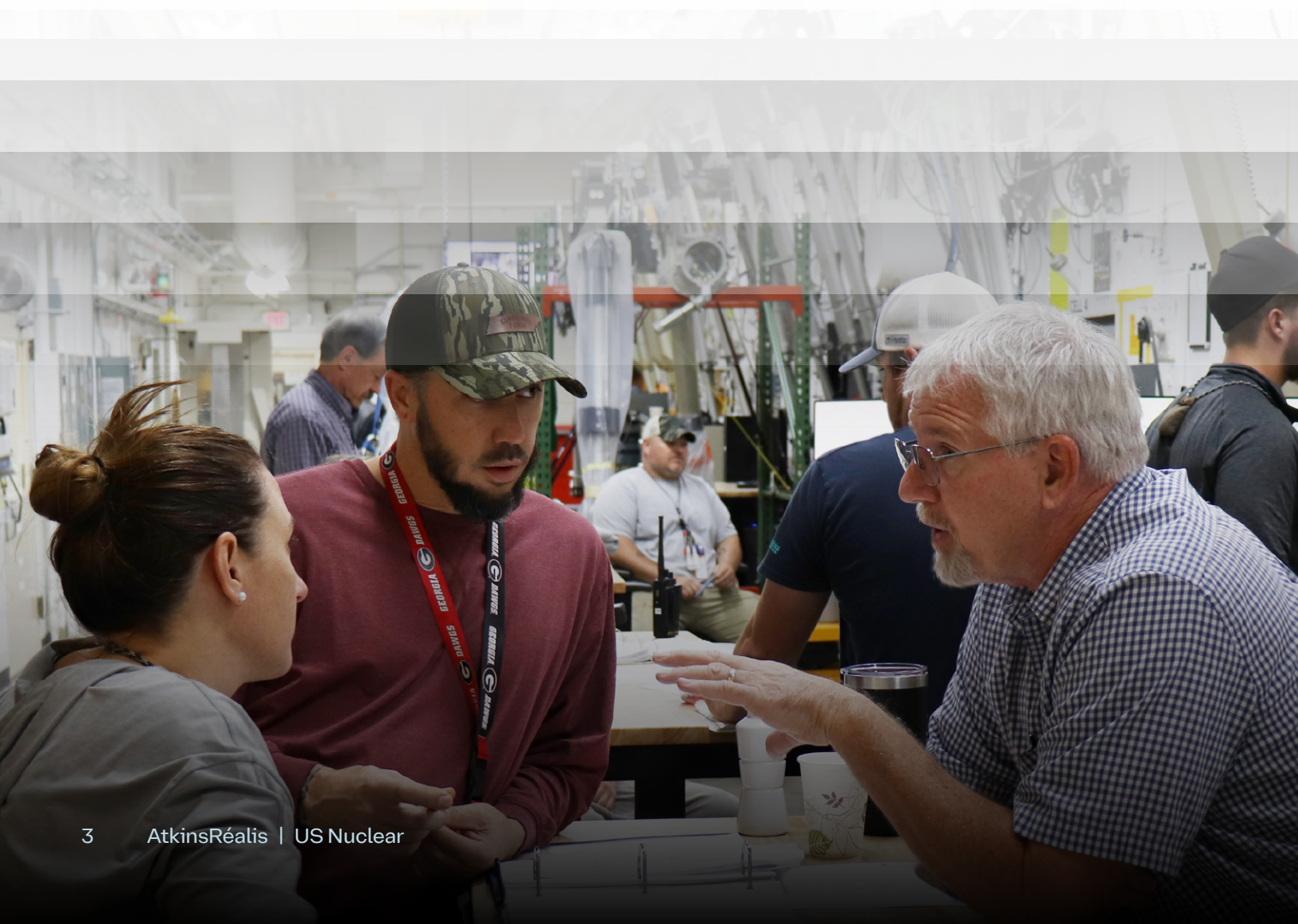


INTRODUCTION

Focused on the US federal market with expertise in nuclear operations, process design engineering, waste management, characterization, transportation, disposition and high-level waste technologies.

For almost 30 years, we have successfully addressed some of the industry's most challenging cleanup and decommissioning tasks across various facilities. We offer an array of specialized nuclear safety, quality assurance, oversight and assessment services, supported by a team of experienced personnel dedicated to serving our customers.

Our global nuclear team has seen and touched some of the world's most challenging nuclear projects, so we know firsthand the many complexities involved. That's why our tailored offering is results focused and full service —never one size fits all. We identify, develop and implement new solutions, leveraging our global experts locally to help our customers reduce risk and improve safety and efficiency.



OUR CAPABILITIES



Large project management and environmental services

- Environmental compliance and assessments
- Regulatory affairs
- Decontamination and decommissioning
- Remediation
- Waste management and transportation
- Nuclear safety
- Radiological services
- Site closure and long-term stewardship



Facility management and operations/maintenance

- Nuclear safety/nuclear critically safety
- Management, operation and maintenance of facilities
- Rigorous conduct of operations
- Plant startup and commissioning
- Training
- Readiness
- Enabling technologies
- Asset management



Engineering, procurement and construction management

- Conceptual through detailed design
- Process engineering
- Cold and hot functional testing
- Landfill design, build and operate
- Applied technology
- Niche support, e.g., safety, fire protection, licensing, etc.
- Product and equipment fabrication and supply
- Engineering and construction management



Technology development and consulting services

- Fire protection
- Safety management
- Quality assurance/quality control
- Performance assurance
- Emergency management
- Nuclear facility safety
- Transportation
- Complemented by staff augmentation in engineering, project management and other technical services
- Research and development programs
- AtkinsRéalis Technology Center
- Vitreous State Laboratory (VSL) at the Catholic University of America (CUA)



OUR EXPERTISE

Waste management

We have pioneered new technologies and processes to improve the safety and security of the nation's radiological and hazardous waste. Our capabilities range from packaging, handling and shipping, to analysis, characterization and treatment, combined with a deep understanding of regulatory and compliance requirements.

Deactivation & Decommissioning (D&D)

When a nuclear asset reaches the end of its life, our expert waste, decommissioning and remediation teams step in to deliver unique end-to-end services that safely retire nuclear legacy sites and secure widespread environmental benefits. Whether the need is for strategic advice, technical guidance, hazard reduction, operations or full project delivery, our diversified expertise and our extensive worldwide experience enable us to take on multi-faceted complex projects.

Site management

From helping our clients manage day-to-day operations to managing and restoring legacy nuclear facilities, we provide full-service support throughout the entire nuclear lifecycle.

Engineering

Our services begin at the concept stage. We use advanced digital technologies, including computer-aided engineering at the design stage. This kind of innovation lies at the heart of all our nuclear projects.

Independent Performance Assessment Team (IPAT)

Our IPAT conducts performance-based reviews to identify underlying weaknesses in project operations that require improvement. These reviews do not focus on a single element (e.g., safety, quality assurance, conduct of operations, or operational efficiency), but recognize continuous improvement in all these results in successful operations.

The reviews are thorough, professional and hard hitting. Our experienced team leads high-hazard nuclear operations and knows what superior performance looks like.

Advanced Small Modular Reactors (SMRs)

Advanced SMRs are a key part of the DOE's goal to develop safe, clean and affordable nuclear power options. Our experts assist vendors in the design of SMRs, including not only the reactor core, but also balance of plant, civil works, decommissioning plans and other key factors that go into completing a reactor design. We have extensive experience in licensing non-traditional designs across the globe and our broad engineering and project experience enable us to find the best SMR solutions.

Hydrogen

Across the world and various sectors hydrogen plays a significant role in our Net Zero future. Nuclear energy can be used to produce low-carbon or zero-carbon hydrogen at a large scale. Delivered by our dedicated, in-house, low-carbon technology specialists, our project and technical staff support our customers throughout the project lifecycle in the development, engineering, design, construction and commissioning of hydrogen facilities.

National Laboratories

We understand the complexities around managing and operating a National Laboratory. We also understand what really matters—the mission. With us as a partner providing management, technical and operational support, scientists and engineers can focus their efforts on delivering scientific and technological breakthroughs to make our world a better and safer place.



Robotics

Robots have the potential to transform the nuclear industry by improving efficiency and safety, while reducing risk, time and costs related to waste management, life extension and decommissioning.

AtkinsRéalis Technology Center

Our state-of-the-art facility located in Richland, Washington, features a 16,000-square-foot testing area with a 59-foot-high bay, configured for any engineering or test application imaginable. Building upon the success of our existing engineering laboratory, we are further developing solutions for DOE and commercial clients to help achieve cleanup goals.



OUR EXPERIENCE

We deliver innovative engineering solutions on nuclear projects across the globe.



Hanford

We are part of the joint venture Washington River Protection Solutions (WRPS), the prime contractor managing retrieval and treatment of Hanford's radioactive and hazardous waste. Hanford currently stores 56 million gallons of high-level waste (HLW), a by-product of cold war weapons production, that will eventually be transformed into a stable, glass product through a process known as vitrification. Once the waste has been vitrified, it will be put into stainless steel canisters and safely dispositioned.



Isotek U-233

Our Isotek business is the U.S. Department of Energy's (DOE) contractor responsible for safely and securely overseeing the nation's inventory of uranium-233 (U-233) and preparing it for removal from the Oak Ridge National Laboratory (ORNL) in Tennessee. We also have a partnership with TerraPower to extract a rare isotope from U-233 and provide it for cancer treatment research.



Norfolk Southern Railway

By leveraging our nuclear and defense, safety, security and engineering experience, we are working with Norfolk Southern to identify and deliver solutions that ensure optimal safety standards for employees, the community and environment. The scope included evaluating the company's safety culture, safety-related training programs, employee engagement, oversight and monitoring and communications protocols and practices. The identified opportunities to improve safety will be implemented in phases, while simultaneously building a roadmap for long-term success.



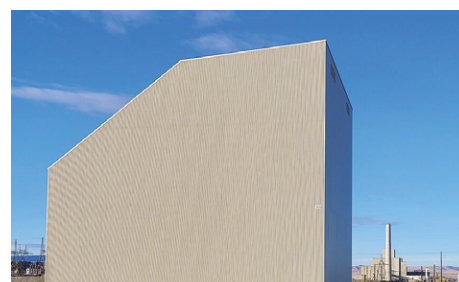
Sandia

We have served Sandia National Laboratories (SNL) for more than 20 years. We have established trusted relationships with organizations focusing on a variety of classified and unclassified federal programs, including performance assurance, safety, fire protection, and work planning and control activities.



Canadian Nuclear Laboratories (CNL)

We are responsible for the management and operation of the current and former CNL complex sites. Our scope includes laboratory revitalization, legacy cleanup program, reactor entombments, waste management, decommissioning and site closure.



Central Plateau Cleanup Company (CPCCo)

We are part of the joint venture CPCCo, responsible for the safe, environmental cleanup of legacy nuclear waste at the Hanford Site, including managing site operations, facility deactivation, decommissioning, decontamination and demolition, waste-site remediation and transuranic waste management on Hanford's Central Plateau and along the Columbia River Corridor.



Depleted Uranium Hexafluoride (DUF6)

The AtkinsRéalis-led Mid-America Conversion Services, LLC (MCS) joint venture operates DOE's two depleted uranium hexafluoride (DUF6) conversion facilities in Ohio and Kentucky. The site processes DOE's inventory (more than 70,000 cylinders) of legacy DUF6, a co-product of the uranium enrichment process. The facilities convert DUF6 to depleted uranium oxide for possible future reuse, storage or disposal. A co-product of the conversion process is hydrofluoric acid (HF), which can be reused in industrial processes.



Vitreous State Laboratory (VSL)

For over 40 years, we have been working with the VSL of the Catholic University of America (CUA) for the continued treatment of high-level and low-activity radioactive waste using Direct Feed Low-Activity Waste (DFLAW), which sends low-activity waste from the tank farms directly to the Waste Treatment and Immobilization Plant (WTP). We are also helping the DOE's Environmental Management (EM) Office continually improve efficiency in melter design and operation.



Pacific Northwest Hydrogen Hub

We helped lead the PNWH2 proposal development to the DOE Regional Clean Hydrogen Hub program funding opportunity. PNWH2 was selected as one of the Regional Clean Hydrogen Hub programs in October 2023 for award negotiations. The hydrogen hubs will kickstart a national network of clean hydrogen producers, consumers and connective infrastructure while supporting the production, storage, delivery and end-use of clean hydrogen.

BEYOND ENGINEERING

What makes us different is the way we work, and the way we think. [Beyond Engineering](#) is our thought leadership.

Click the thumbnail to view and download our latest reports, brochures and magazines and find out how our experts and thought leaders are addressing some of today's big issues and helping the world fulfil the potential of clean, low-carbon nuclear power.

[Beyond Engineering](#)

Listen to our experts discuss many to today's big issues.

[Net Zero Needs More Nuclear —Here's Why That's a Good Thing](#)

Powering Nuclear Innovation

How digital adoption at every stage of the nuclear plant lifecycle can support the sector in powering a more sustainable future.

[Read the report](#)

Engineering Net Zero UK Report

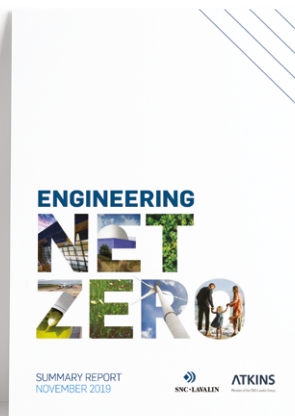
In this report we explore and determine what Government decisions must accelerate if the UK is to match ambition with action and achieve net zero.

[Read the report](#)

Engineering Net Zero Canadian Report

Our report examines the blueprint for Canada to achieve net zero carbon target by 2050 and brings into perspective the size of the monumental task ahead, including challenges and potential solutions across economic sectors.

[Read the report](#)





OUR GLOBAL MARKET AND SERVICES

We harness our global scale to maintain a relentless focus on consistency, efficiency and operational excellence across our eight core end markets and portfolio of end-to-end services.

Our markets

We have primary focus on the built and natural environment across eight clearly defined end markets.



Buildings & places



Defense



Industrial



Minerals & metals



Nuclear



Power & renewables



Transportation



Water

Our services

We deploy global capabilities locally to our clients and deliver unique end-to-end services across the whole life cycle of an asset including:



Consulting,
strategy & advisory



Engineering
& design



Project & program
management



Project delivery



Operations &
maintenance



Capital



Decommissioning

atkinsrealis.com/MarketandServices



OUR PEOPLE

Our global workforce of over 36,000 represents 130 nationalities across six continents and speaks more than 70 languages. These differences are one of our greatest strengths and key to understanding the needs of our clients worldwide.

Every day, we're striving to be more inclusive, more collaborative and more innovative in how we drive change.

TO US,
DIFFERENT MAKES
A **DIFFERENCE.**





OUR PRIORITIES

We care about the big issues facing the planet and are committed to engineering a better future for its people.

ENGINEERING A BETTER FUTURE

atkinsrealis.com/EngineeringABetterFuture



We are changing our world, to change yours by connecting people, data and technology.

To us, digital is more than just a label. It's fundamental to our way of working. It has the power to transform outcomes, when combined with every element of the engineering process: our people, our data insights and our technology.



We are safeguarding the future with strategies and solutions for a net zero carbon future.

Our net zero ambitions are not without challenge or risk, but it's up to us to face them head-on. To find the opportunities. To build the future, and safeguard it for generations to come, with sustainable, innovative and resilient projects and processes, and with collective action.



OUR VALUES



Safety



Innovation



Integrity



Collaboration



Excellence





Engineering a better
future for our planet
and its people.

Nuclear



atkinsrealis.com