

ACCELERATED DECOMMISSIONING PARTNERS



Northstar's Partnership with **orano**



Formed in 2017, the Accelerated Decommissioning Partners joint venture applies the combined global experience of **NorthStar**'s demolition and environmental remediation expertise with **Orano USA**'s core competencies in nuclear component dismantling and used nuclear fuel management.

ADP applies its member companies' decades of decommissioning expertise to remove nuclear reactor site buildings, components and structures decades earlier than the SAFSTOR process—and enable the restored site to be used for potential further economic development.

The joint venture is designed as a one-stop shop to contain all required management, regulatory, technical and financial qualifications to decommission U.S. nuclear energy sites safely and in accordance with all NRC and state requirements.

FAQS

Why did NorthStar decide to pursue this joint venture with Orano?

ADP is uniquely positioned to offer a complete one-stop shop for decommissioning a nuclear power facility and managing used nuclear fuel. Our complimentary expertise and decommissioning assets combine the core competencies of Orano's nuclear component dismantling and used fuel management with NorthStar's extensive demolition and environmental remediation capabilities for both commercial and government nuclear decommissioning and closure projects. Also, ADP affiliate Waste Control Specialists (WCS) is the only site authorized to dispose of Class A, B and C wastes, and is the only site pursuing a permit for disposal of Greater Than Class C (GTCC) waste. This combination is the foundation for ADP's unique ability to deliver certainty to the industry and the public in the final stage of shutdown reactor sites. The ADP member companies each have decades of experience in their industries and an earned reputation for safe performance and successful project execution.

What is ADP's business model?

The innovative approach pioneered by NorthStar at Vermont Yankee accelerates decommissioning of shutdown nuclear power facilities through a flexible business model ranging from the complete and permanent transfer of ownership of the assets, including used nuclear fuel, to variations of ownership transfers and decommissioning services.

Why does ADP want to acquire nuclear facilities for decommissioning?

ADP's business model starts with the underlying objective of providing the shutdown site owner the ability to transfer the responsibility, risk, and liability associated with decommissioning project performance and cost escalation, as well as used fuel management to an entity specialized in nuclear decommissioning and managing used fuel. We are experts in facility decommissioning and managing used fuel. This is what we do.

What benefits does the ADP business model provide?

The ADP license transfer approach provides utility owners of shutdown reactors and their ratepayers several benefits in terms of cost savings, certainty and safety. ADP's approach establishes a competitive upfront fixed cost for work needed to reach license termination. The decommissioning work is conducted under the close oversight of regulators, and must meet defined benchmarks. In this way, financial responsibility for project execution risks, including any potential cost overruns, is borne by ADP—not the decommissioning fund. ADP does not cut corners, and safety is our number one priority.

How much experience does ADP have decommissioning nuclear energy facilities?

Combined, the two companies have performed 160 decommissioning and demolition projects at 64 nuclear energy facilities in nine countries, including more than 10 NRC-licensed nuclear reactor and laboratory sites in the United States. NorthStar and Orano USA teamed together in a similar accelerated decommissioning business model last year to successfully complete the license ownership transfer of the Vermont Yankee nuclear reactor site. Orano USA has already begun the process for segmenting and packaging the reactor pressure vessel and its internal components.

What drives ADP's focus on quality and safety?

ADP has a vested interest in performing high quality work on current projects to ensure the company is well-positioned for future business opportunities in this growing decommissioning market. This quality effort includes positive, responsive community engagement along with the physical site decommissioning.

Will ADP do all the decommissioning work?

As a fully integrated, one-stop-shop provider of accelerated decommissioning, ADP contains all aspects of the process, including engineering, pool-to-pad used nuclear fuel transfer and storage, radioactive component segmentation and packaging, radioactive materials transport, facility demolition, site restoration, and offsite consolidated interim storage through our affiliate Waste Control Specialists.

Does ADP hire locally for this work?

ADP has a strong commitment to consider local firms for site work, including retaining site employees critical to the decommissioning activities.

What is Orano's role in ADP?

Orano's primary role is applying its decades of global expertise to securely segmenting, packaging and transporting the radioactive reactor pressure vessel and its internal structures.

What is the reactor pressure vessel, and how big is it?

When in operation, the nuclear reaction and steam generation occurred within the reactor pressure vessel. The component is basically a very large steel can with thick walls and rounded lids on top and bottom—about as long as a normal semi-truck and trailer, and twice the width of the trailer—with a total weight about 400 tons.

What are the reactor internals?

The reactor internals are all the machinery inside the reactor pressure vessel—minus the used nuclear fuel, which has been moved out of the reactor to dry storage—that controlled the nuclear reaction and water/steam cycle.

How will external radiation exposure be prevented during the decommissioning process?

All work will be performed in compliance with NRC regulations governing any exposure during decommissioning. The project team is experienced in decommissioning and dismantling processes

that include robust protection of the workers and surrounding environment through using the facility's existing barriers, such as performing work inside the containment building, using remotely operated machinery, and additional protection strategies where needed.

What will happen to the segmented reactor vessel, internals and other radioactive waste?

Low level radioactive waste, such as the vessel and internals, can be securely packaged in NRC-licensed containers and transported for disposal at ADP's affiliate Waste Control Specialists' licensed facility in Andrews, Texas. Greater-than-Class-C (GTCC) waste will remain in secure storage onsite pending transfer to a permanent federal repository or a consolidated interim storage facility.

What happens to the dry storage facility remaining on the decommissioned site?

The onsite dry storage facility—called an Independent Spent Fuel Storage Installation (ISFSI)—will continue securely manages the site's used nuclear fuel until it can be moved offsite to a permanent federal repository or a consolidated interim storage facility.

What requirements must be met during decommissioning?

The NRC executes stringent oversight in all aspects of the decommissioning process, both before and after site transactions. The NRC is a deliberative, engaged independent regulatory body, and has shown itself to be a proactive entity ensuring compliance with requirements for health, safety and financial standing throughout the decommissioning process.