Supercharging the Nuclear Industry with Westinghouse AI

Demand is increasing dramatically for carbon-free reliable power to support data center growth and ensure energy security. This creates a clear opportunity to accelerate new nuclear plant builds as well as optimize and extend plant life.

That's where AI can help.

Westinghouse continues its legacy of innovation with award-winning bertha™ AI solutions designed specifically for the nuclear industry. Our pioneering Westinghouse bertha™ generative AI assistant and HiVE™ AI system power all Westinghouse AI applications. Thanks to close collaboration with the Databricks Data Intelligence Platform team, Westinghouse AI experts built a robust, scalable and secure architecture using 75+ years of nuclear and industry data. Our architecture was designed from the start to meet strict regulatory requirements and uniquely draws on Westinghouse's deep experience in the nuclear industry.

Westinghouse AI technology use cases include improving efficiencies in plant construction, fuel manufacturing and reloading, license document processing, safety and security, knowledge management and workforce upskilling.

Now, thanks to a Google Cloud partnership, Westinghouse's HiVE™ AI system will significantly de-risk construction of our AP1000® reactors. Uniquely combining Google Cloud's AI technologies and expertise with Westinghouse's 75+ years of experience in nuclear innovation, the collaboration has successfully developed a first-of-a-kind proof of concept. The teams integrated AI into Westinghouse's WNEXUS digital plant design platform to create and optimize modular construction work packages.

Westinghouse has also separately been granted a Databricks 2025 AI Award for Energy and Utilities - a prestigious award that recognizes the most innovative AI applications around the world and across industries.

Focused on bringing AI-enhanced value to customers today, Westinghouse integrated the bertha™ AI Assistant into its OptiLife™ platform. Seamlessly compiling data from nearly 200 global power plants of all technologies, OptiLife™ combines engineering expertise and proprietary analytics into a suite of services. This platform provides comprehensive and actionable insights in the areas of Plant Reliability Optimization, Enhanced Procurement Engineering, Inventory Analytics, Digital Work Management and Training Solutions. Our AI-powered platform helps customers meet the challenges of resource availability and growing operational and maintenance spend.

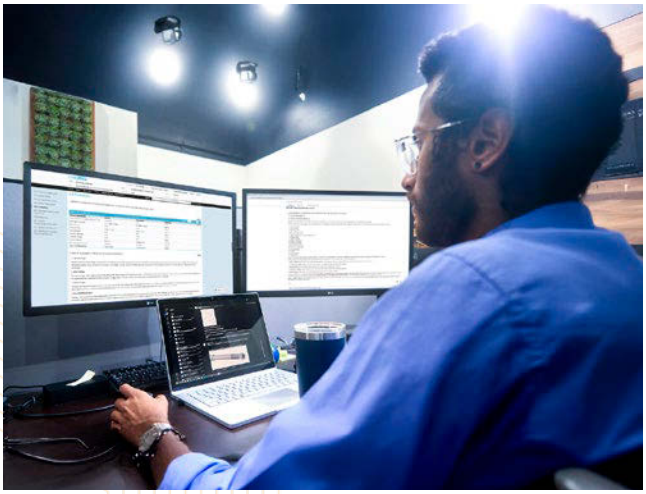
The OptiLife™ Model delivers incredible operational excellence:

- $30M of Life of Plant Savings through 50.69 RISC-Informed application utilizing data analytics,
- 38% of the annual procurement engineering spend saved on unnecessary engineering time and efforts,
- 4,000 hours of outage maintenance eliminated after the customer had already performed their own analysis.

One of the first AI integrations to the OptiLife™ Digital Work Management Suite is the Configuration Management Interface System or CMIS. CMIS is a tool leveraged by customers to create engineering packages, perform licensing documentation and reviews, and conduct a large number of day-to-day tasks that support efficient facility operation. The web-based tool helps stations interface with stakeholders, ensures low-level procedural compliance, and reduces errors through automated checks and balances. Historically, customers have indicated that these features helped reduce as much as 25% of the time spent creating engineering materials.

How CMIS bertha™ AI Assistant Supports Engineers

Within Optilife™, CMIS AI is available as an expandable windowpane and is completely aware of the context of the engineering package being used. Engineers have instant access to an AI assistant with expert-level nuclear knowledge that can support decisions. That's because bertha™ AI Assistant is also completely connected to all the existing engineering packages, attachments, operating experience, procedures, forms and all information already within CMIS.



Engineers can quickly create and use facility knowledge bases such as vendor documentation, codes and standards, and can connect to their document control system to augment and tailor the assistant for real-time expertise. In a matter of seconds, engineers have multiple additional nuclear experts at their disposal, accelerating the process and reducing the amount of administrative time and the learning curve needed to complete the work. This acts as a force multiplier across the customer's workforce.

Elevating the Power of bertha™

As an example of OptiLife's™ full power with bertha™ AI, users can compare an obsolete part's technical specification sheet to a replacement part directly within CMIS. Engineers automatically review critical characteristics and compare technical data, while also considering the station's license considerations in parallel and generating the information needed. Utilizing industry standards knowledge bases and other reference materials further supercharges an engineer's ability to work quickly and accurately.

bertha™ can provide obsolete part recommendations across the entire OptiLife™ platform, providing engineers with utility-specific suggestions around maintenance and plant reliability optimization, inventory changes, training impacts and alternatives to part replacement. In other words, bertha™-powered OptiLife™ dramatically improves how engineers do their jobs - creating tremendous benefit to all station stakeholders.

Optilife™ CMIS with bertha ™ AI is an incredible leap forward in creating a more insight-driven, strategic approach to managing your plants. We have an exciting future ahead – with powerful AI helping us address some of the most significant industry challenges. From workforce training, efficiency, new build and extended life solutions to supply chain, safety and security issues, Westinghouse AI is leading the way.

Contact elizabeth.kaczmarski@westinghouse.com to learn more.

www.westinghousenuclear.com/operating-plants/digital-optimization-services

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