PROJECT BRIEF

Suspended Work Platforms Essential for “Upper Feeder” Nuclear Reactor Core Refurbishment

Winsafe SuperDeck Super Efficient

Summary

Winsafe, a BrandSafway company based in Ontario, engineered a unique suspended access system, which is being used as part of a solution to access and refurbish six reactor units at Bruce Power, a 6,430 MW nuclear generating station, which supplies 28% of Ontario’s power.

To keep the project on schedule, work in the upper portion of the reactor must proceed in parallel with work in lower areas. “Upper feeder” work includes replacing tens of thousands of feet of carbon steel feeder tubing and the specialized nuclear fuel channel assemblies of the primary heat transport (PHT) system. Work in the vault below includes replacing hundreds of tubes in a large tank called a calandria, which is part of the reactor core.

The large area work platform combines standard and custom-fabricated components for cost efficiencies.

Quick Facts

Project:	Bruce Power Major Component Replacement Project
Location:	Tiverton, Ontario
Dates:	January 2020 for Unit 6, through 2023 for Unit 3
Services:	Engineering and project management
Scope of Work:	Refurbishment of six reactor units at a 6,430 MW nuclear generating station
Products/Services:	SuperDeck and SuperMod extruded aluminum components
Safety Record:	Zero recordables

ZERO INCIDENTS

WINSAFE

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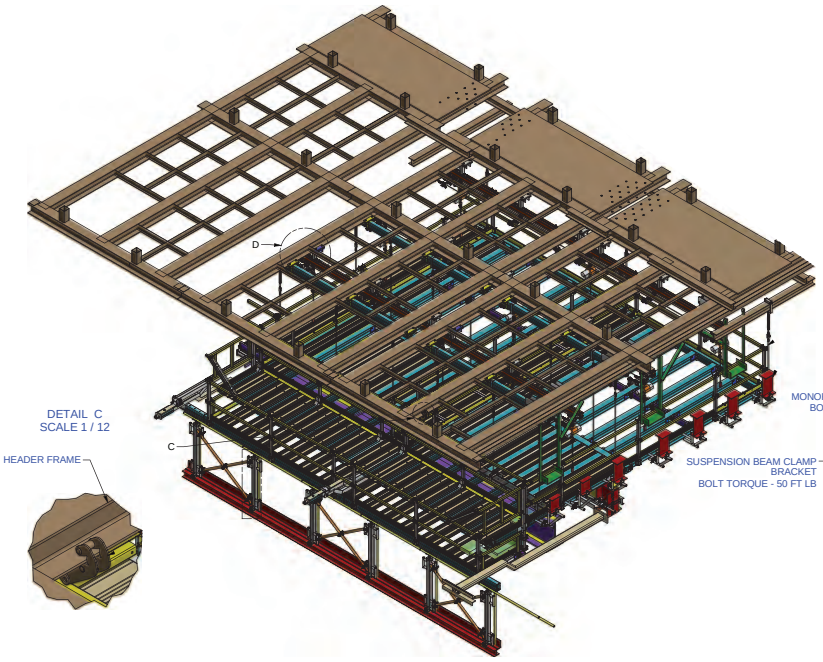
The project is being executed by Shoreline Power Group (a joint venture between Aecon, SNC-Lavalin and United Engineering). Engineering support was provided by Hatch, a leading Ontario-based firm.

Customized & Standard Components

Due to BrandSafway's experience and expertise engineering work platforms and providing access solutions for the nuclear industry, Hatch engaged Winsafe, a company that is part of BrandSafway, to design the upper feeder platforms. Each platform is approximately 61 by 57 feet and has a load capacity of 25 pounds per square feet with a safety factor of four. (Different platform zones have different loading requirements.) Once the design was approved by the customer, AECON had Winsafe fabricate the platforms.

The floor of the platform is made from extruded aluminum planks and based on Winsafe's "SuperDeck" and "SuperMod" modular suspended platform system. Other components include SuperMod trusses, U-frames, floors and handrails, along with special SuperDeck end frames, X-braces and floor hold-down bars. The upper feeder platform is suspended with tubes that clamp to structural steel beams, which in turn connect to the building's superstructure.



> **"Our engineering expertise enables us to create safe and efficient access solutions in even the most restricted and challenging work environments"**
>
> – Pierre Grenier, Managing Director, Major Projects Group

Winsafe SuperDeck and SuperMod can be easily configured around pipes and other obstacles.

SuperMod SuperDeck is Super Efficient

The BrandSafway SuperDeck/SuperMod solution delivers multiple benefits:

1. The large area work platforms are easy to erect/dismantle when wearing the Personal Protective Equipment (PPE) required in nuclear facilities.

2. After completing work in Unit 6, the Upper Feeder Platform will be converted and moved to Unit 3, the next unit scheduled for refurbishment.

3. The platform is modular and highly configurable, enabling it to conform to the maze of pipes and tubes in each reactor unit.

4. The SuperDeck provides a highly stable work platform, enhancing worker safety and efficiency.

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For more information, visit www.BrandSafway.com