



US Army Corps
of Engineers®
Seattle District

"Building Infrastructure, Not Paperwork"

Albeni Falls Dam Spillway Gate Replacement

Area of Effort: Maximize the Ability to Deliver National Infrastructure, Focus on Efficiency

Background:

The Albeni Falls Dam (AFD) Spillway Gates were authorized under the original 1950 authorization for the dam. AFD has ten spillway gates and one spare gate. Defects in the steel, known as rolling defects which elevate the risk of delamination of the steel, were identified on critical girders after a single spillway gate was removed for rehabilitation.

The spillway gates are original to Albeni Falls Dam, constructed in 1955, and are designated joint assets funded by both Bonneville Power Administration (BPA) and appropriated funding. The gates are used to control lake levels for flood risk management, navigation, fish spawning and recreation. Since all 11 spillway gates were fabricated at the same time with the same steel type, it is presumed that other gates at the project have similar base metal flaws/defects that could result in fracture and collapse of a gate. This is a joint funded project by both BPA and appropriated funds.



Project Summary:

The scope of AFD spillway gate repair and replacement project is two-fold, involving repairing gate 3 to facilitate its return on site and back in use. On its return in May 2025, Fiber Reinforced Polymer was installed on gate 3's upper leaf critical girders, an innovative engineering solution to optimize the lifespan of the existing gate. The long-term portion of the project includes designing and fabricating new spillway gates. To reduce life safety risk to the crane operator during gate movements and also to reduce the risk of gate material failure under dynamic loading conditions, U.S. Army Corps of Engineers' (USACE) officials modified spillway operations at AFD by minimizing gate movements. USACE is communicating frequently with the public and stakeholders on how restricted operations may impact lake refill, downstream flows and total dissolved gas as well as status of the new gates.

Status:

The project is currently construction. In February 2026, USACE awarded the contract for new spillway gates and new lifting beams. The first new gate is scheduled to arrive on-site in March 2027. It is expected the contractor will fabricate 2 to 3 gates per year, and all 11 gates will be onsite no later than 2031. The delivery schedule for the new gates is limited by contractor capacity.

Authority:

Construction authorized under Flood Control Act of 1950 (P.L. 516, 81st Congress, 2nd Session). Navigation, hydropower, and flood control are authorized under P.L. 81-516. Recreation is authorized in the Flood Control Act of 1944, Sec.4 (P.L. 78- 534).

