

Brookfield

Brookfield Renewable Power Inc.
Hydro Kennebec, LLC
51 Simpson Avenue
Winslow, ME 04901

Tel 207.872.0542
Fax 207.872.0972
www.brookfieldpower.com

March 31, 2011

**FERC No. 2611
Hydro Kennebec Project**

File 2611/1

The Secretary
Federal Energy Regulatory Commission
Mail Code: DHAC, PJ-12.3
888 First Street, N.E.
Washington, D.C. 20426

**Subject: FERC Project No. 2611 – Hydro Kennebec Project;
Interim Downstream Fish Passage 2011 Study Plan**

The Lower Kennebec River Comprehensive Hydropower Settlement Accord (Settlement), which was approved by the Commission on September 16, 1998, required the licensee of the Hydro-Kennebec Project to consult with federal and state agencies to develop an approved plan for interim downstream passage facilities and/or operational measures to minimize impacts on downstream migrating fish. As the result of this consultation, and as approved by the Commission on April 21, 2006, the licensee installed interim downstream fish passage facilities at the Hydro Kennebec Project in 2006. These facilities, which were designed through consultation with the Maine Department of Marine Resources (DMR), Maine Atlantic Salmon Commission (ASC), United States Fish and Wildlife Service (F&WS), Maine Department of Inland Fisheries and Wildlife (IF&W), and the National Marine Fisheries Service (NMFS), include a 10' deep angled fish boom in the forebay leading to a 4' wide by 8' deep slot (the fish bypass) capable of passing 4% of turbine flow. The slot is cut into the wall between the turbine intakes and the bascule gate structures, and discharges to a plunge pool next to the powerhouse. The plunge pool in turn leads to the turbine tailrace.

The interim downstream fish passage facilities were installed in 2006 to minimize impacts on downstream-migrating adult fish, due to the 2006 completion of a fish lift at the downstream Lockwood Dam; turbine passage has been a provisionally approved interim downstream passage route for juvenile fish at the Hydro Kennebec project for several years (until permanent downstream passage measures are implemented) following visual observation studies from 2001 – 2003 that did not reveal significant injury and/or mortality to juvenile fish.

The Settlement also required the Hydro Kennebec licensee to conduct effectiveness studies of all newly-constructed interim and permanent upstream and downstream fish passage facilities. Thus, studies have been conducted at the Hydro Kennebec Project since 2007 (using optical camera, hydroacoustic, and passive integrated transponder methodologies) to evaluate the effectiveness of the interim downstream fish passage facilities.

As noted in Acceptance of License documents filed with the Commission on April 1, 2010, Hydro Kennebec LLC (HKLLC) became the new licensee for the Hydro Kennebec project on March 17, 2010. HKLLC is controlled by the Brookfield family of companies, and is an indirect affiliate of Brookfield Renewable Power Inc.

Shortly after taking over operation of the project, HKLLC agreed (during a site visit with F&WS personnel) to conduct two effectiveness studies in 2011 – a radio telemetry study of downstream-migrating Atlantic salmon smolts to determine fishway effectiveness, and a mark and recapture study to determine the condition of smolts passing through the downstream fishway. Both of these studies will depend on suitable river flow conditions (i.e., no or minimal spill) for both study effectiveness and safety of study personnel.

PLAINTIFFS' EXHIBIT 6

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This modified procedure, together with the spare boom that is now available, will increase the deployment period of the boom each season (which is intended to be April through December). Previously, boom deployment had to wait until no-spill conditions to ensure worker safety, since a boat was required for installation and removal of the boom. This typically resulted in the boom not being installed until sometime in May.

Please find attached a final plan for 2011 studies of downstream-migrating Atlantic smolts at the Hydro Kennebec Project. Feel free to call or write if you have any questions.

Sincerely,



Kevin Bernier
Manager, Licensing and Compliance

Enclosures

cc: Gail Wippelhauser, DMR
Skip Zink, DMR
Paul Christman, DMR
Robert VanRiper, IF&W
Keel Kemper, IF&W
Ben Rizzo, F&WS
Antonio Bentivoglio, F&WS
Jeff Murphy, NMFS
Bill McDavitt, NMFS
Brian Stetson, HKLLC
Clare Kirk, HKLLC
Steve Mockler, HKLLC
Drew Trested, Normandeau
Dana Murch, DEP
Norm Dube, DMR
Steve Timpano, IF&W
James Lucas, IF&W
James Connolly, IF&W
Fred Seavey, F&WS
Brett Towler, F&WS
Sean McDermott, NMFS
Eric Linnell, HKLLC
Dennis Rosebush, HKLLC
Russell Smith, HKLLC
Mike Osborne, HKLLC
Rick Simmons, Normandeau