FEDERAL ENERGY REGULATORY COMMISSION
Washington, D. C. 20426

OFFICE OF ENERGY PROJECTS

Project No. 2790-049
Lowell Hydroelectric Project
Boott Hydropower, Inc.

Mr. Kevin M. Webb
Boott Hydropower, Inc.
One Tech Drive, Suite 220
Andover, MA 01810

MAY 28 2008

Subject: Complaint Concerning Pawtucket Dam

Dear Mr. Webb:

In order to respond to complaints of several residents along the Clay Pit Brook about flooding from the operation of the Pawtucket Dam, we requested that you conduct a backwater analysis to determine if the flashboards potentially impact water surface elevations along the Clay Pit Brook. We requested that you conduct the analysis under different Merrimack River flows with 5-foot and 4-foot flashboards and without the flashboards.

A. Backwater Study

According to the study plan filed on March 24, 2008, the study report is due on May 15, 2008. In an April 30, 2008 e-mail, you stated that there would be a two week delay in submitting the report because of the need to obtain through a survey correct data on culvert sizes and elevations along the Clay Pit Brook. However, the report is now due on May 29, 2008. In a May 23, 2008 e-mail, you stated that the survey was completed on May 16, 2008, and the surveyor would deliver the data to your consultant on May 23, 2008. After that you will submit a text of the report and tabular results by June 16, 2008, and the final report along with inundation maps by June 29, 2008. Given the nature of concerns about the operation of your project, it is imperative that you submit the study report as soon possible.

B. Flashboards

In the course of our review of the flooding complaint, we found a discrepancy between authorized flashboards and the as-built flashboards. The license for the project authorizes 5-foot (ft) high collapsible flashboards on the

Pawtucket Dam supported by 5-ft-high pins (the height of the pins is exclusive of a 6.5 inches section embedded in the pin holes). The pins are 1 3/4 inch in diameter and made of mild steel, set in the dam's granite capstones on 20 inch (average) centers.

According to your February 25, 2008 letter, the existing flashboards consist of 4 ft by 8 ft sheets of plywood laid on edge, with an additional 1 ft of boards nailed to the top to make up the 5 ft authorized height. Your filing shows the supporting pins extend only to the top of the first 4 ft of the flashboards. You stated that the flashboards are designed to fail when overtopped by approximately 2 ft of water, which would be expected to occur at a spill flow of 10,000 cfs (i.e. total of 20,000 cfs if all the Lowell Project's units are operating).

Based on our review of filings and of photographs of the Pawtucket Dam taken during the past 2 months, the flashboards did not fail when the flows of Merrimack River were approximately in the range of 20,000 to 37,000 cfs. The record shows only partial failure or bending of some of the pins.

In your February 25, 2008 letter, you stated that repair and replacement of the flashboards can occur after the flow recedes to less than the hydraulic capacity of the turbine units which is about 9,000 cfs or less. As of May 28, 2008 at 6:45 AM, the Merrimack River flow was approximately 4,000 cfs (USGS Gage 01100000).

Based on the above review, our preliminary independent analysis, and flooding concerns, you are hereby directed to immediately remove the flashboards. Within 15 days from the date of this letter, you must provide a report documenting the removal of the flashboards. Before you can use the flashboards again, you must provide for Commission approval a new design for supporting pins that would fail as originally designed.

If you have any questions, please contact Mr. Vedula Sarma at (202) 502-6190.

Sincerely,

William Guey-Lee

William Guey-Lee, Chief
Engineering & Jurisdiction Branch
Division of Hydropower Administration
and Compliance