

INTERNATIONAL NIAGARA BOARD OF CONTROL

Minutes of the March 20, 2013 Meeting
Chicago, IL

BG Burcham called the meeting to order at 8:05 am in a conference room of the US Army Corps of Engineers, Chicago District. Those in attendance were:

<u>UNITED STATES</u>	<u>CANADA</u>
<u>BOARD MEMBERS</u>	
BG M. Burcham, Co-Chair Mr. W. Allerton	Mr. A. Thompson, Co-Chair
<u>SECRETARIES</u>	
Mr. J. Kangas	Mr. C. Southam
<u>WORKING COMMITTEE AND ASSOCIATES</u>	
LTC O. Beaudoin Mr. E. Tauriainen Mr. P. Yu Mr. J. Allis Mr. G. Cross Mr. K. McCune Mr. E. Barbiero Mr. E. Mendez Ms. C. Fisher LTC R. Ells Mr. K. Kompoltowicz	Ms. J. Frain Mr. J. Bruxer Mr. J. Gadai, L. Superior Board Mr. D. Fay, IJC

Item 1. Approval of Agenda

The Board approved the agenda after adding two items--GIS and Niagara River Projects--to Other Business (Encl 1).

Item 2. Roles of Board, Working Committee, INC

The Board Secretaries noted the responsibilities of the Board under two IJC Orders of Approval and the Board Directive. Several supporting documents had been circulated to Board Members and Associates prior to the meeting, including the Board Directive, Orders of Approval for the Chippawa-Grass Island Control Structure and the

Lake Erie-Niagara River ice boom, and IJC policy statements on public information and immunity of Board records. It was noted that the Board's Working Committee supported the technical activities of both the Niagara Board and the International Niagara Committee. Mr. Bruxer noted that the IJC is implementing a Sharepoint system with each of its Boards having their own password-protected site. This should facilitate the sharing of documents. Training will be offered in the near future.

Item 3. Update on Lake Erie/Niagara River conditions

Mr. Yu provided the Board with an update of levels, precipitation and net basin supplies for Lake Erie and the Niagara River. Precipitation over the Lake Erie basin was reported to be 5 % above average for the September 2012 – February 2013 period. The Lakes Michigan-Huron level is lower than a year earlier and is expected to stay below average and below chart datum for the next 6 months. Lake Erie outflows were below average during the September 2012 – February 2013 period. Currently, Lake Erie's water level is about 16 cm (6 in) below average. The latest 6-month forecast indicates that Lake Erie's level will likely remain below average through the summer; however, levels could rise to near average under high water supply conditions.

Item 4. Review of Ice Season Activities and Conditions

The Board was provided a summary of the 2012-2013 ice season. Under the Commission's 1999 Supplementary Order of Approval, installation of the boom's spans may begin when the Lake Erie water temperature at Buffalo reaches 4 °C (39 °F) or on December 16, whichever comes first. This ice season, installation began on December 18 and was completed on December 20. The water temperature reached 4 °C (39 °F) on December 28.

This ice season, the areal coverage was near average, but the ice was thin. There were two ice boom breakages - one on February 12 (repaired the following day), and one on February 15 (repaired the same day). About 129 km² (50 square miles) of ice was reported on March 14. A fixed wing flight is scheduled for March 21 or 22 to assess conditions in preparation of opening the ice boom. An ice bridge was reported in the Maid-of-the-Mist pool at the time of the Board's meeting.

Item 5. Chippawa-Grass Island Pool Operations

Ms. Frain discussed the operation and maintenance of the Chippawa-Grass Island Pool (CGIP) Control Structure during the reporting period. Tolerances for regulation of CGIP levels were suspended for three days in December for low flow conditions and for 18 days in January and February for ice conditions.

The hydraulic lines of Gates 4, 5, 8, 9, 12 and 13 were replaced in 2012, completing the project. The hydraulic lines on Gates 14-18 do not need replacing. Several short-term water level gauge outages were reported.

Ms. Frain reported that during a structural inspection of the INCW carried out in November 2012, OPG identified a potential issue with the concrete stability of its bridge supports. A load restriction has been put into place for vehicles operating on the structure. A Consulting Engineering firm has been commissioned to provide options for bridge strengthening.

Mr. Southam reported that a review of the Board's Directive for operation of the Chippawa-Grass Island Pool is continuing. Proposed revisions and clarifications to the Directive are expected to be tabled for Board discussion at the Fall meeting.

Item 6. Review discharge measurement programs

Mr. Allis reported on the discharge measurement programs. Measurements were taken in May and November 2012 at the International Railway bridge site and in May at the American Falls site. All of the 2012 measured flows at the Railway site were higher than those computed using either the 2001 Buffalo and the Fort Erie rating equations or the Buffalo-Material Dock equation. As a result of reviewing previous discharge measurements, a revision of the 2001 Buffalo rating equation is being proposed and is under review by the Working Committee. The proposed Buffalo equation was closer to the 2012 measured flows than any of the older equations, particularly the May 2012 measurements which averaged nearly the same as the proposed equation. The Buffalo rating equation is used in Great Lakes water supply routing models to estimate the flow in the Niagara River and to verify other Niagara River flow estimates. The Fort Erie equation is used by the Power Entities to estimate available water for operational purposes.

On May 8 and 9, 2012, as part of the regular 5-year measurement cycle, discharge measurements were made at the American Falls section using an ADCP mounted on a remote control boat. On average, there was no difference between the 2012 measurements and those computed using the present American Falls rating equation. Following a 5-year cycle, the next scheduled measurements at this location are expected to be made in the spring of 2017.

The Working Committee has been examining the flows reported in the New York State Barge Canal. Measurements were taken in May and November 2012 by the US Army Corps of Engineers to gain a better understanding of the flows in the canal system and the diversion of water from the Niagara River. Preliminary results of the

measurements and related work suggest that the assumed constant flow values of 0 m³/s and 31.0 m³/s currently used for computational purposes during the non-navigation and navigation seasons, respectively, are reasonable approximations. The need to update the values used for computational purposes will be discussed following the completion of the review effort.

Item 7. OPG tunnel status and plant upgrades

Ms. Frain reported on the tunnel status. The tunnel was watered up and tested earlier in the month. It is expected to officially be placed in service in the near future. Ms. Frain also noted that upgrades continue on the Beck 1 units. Unit G3's upgrade is expected to be completed in June 2013. Testing of G7 is expected later in 2013. Work on Unit G10 is expected to begin in June 2015.

Item 8. 2013 Meeting with the Public

The Board discussed the preliminary plans for the 2013 annual meeting with the public. The meeting would normally be held in Ontario, near Niagara Falls. The Niagara Board discussed and supported the idea using webinars in lieu of some face-to-face meetings with the public. The issue will be discussed with the Commission at the April Appearances. It was noted that Environment Canada has produced large maps for use at public, working committee and Board meetings. Digital copies of the maps will be sent to Buffalo District to allow subsequent printing. Several new venue options are being considered for the meeting. The Board will also be considering holding the event in the main tourist season. The date and venue will be determined in the near future. The last Board meeting with the public in Canada was held on August 17, 2011, at a hotel in Niagara Falls, Ontario.

Item 9. Review Semi-Annual Progress Report

The Board reviewed, revised and approved the 120th Semi-Annual Progress Report to the International Joint Commission. The report will be sent to the Commission in the next few days. An advance copy will be furnished electronically.

Item 10. Other Business

a. FAQs for the Board Web-Page Mr. Southam reported that little progress has been made and an update will be reported at the Fall meeting.

b. Temporary gauge at MoM Ms. Frain reported that Ontario Power Generation installed a temporary water level gauge at the Maid-of-the-Mist dockage area last year. The gauge is expected to be operable again this year.

c. Niagara Gauges Mr. Southam reported that little progress has been made on documenting water level gauge histories, uses, maintenance, and operations. An update will be reported at the Fall meeting.

d. MNR comments on CGIP fluctuations Mr. Thompson reported that he had recently received communications from two biologists with the Ontario Ministry of Natural Resources. Their concern is that the pattern of fluctuations in the Pool may be detrimental to the lower Welland River. The Board requested Mr. Thompson to follow up with the scientists to look into this issue in more detail. This will be discussed further at the fall Board meeting.

e. September 2012 minutes The Board noted that the minutes of its September meeting had been reviewed via e-mail, finalized, and forwarded to the IJC for posting.

f. GIS Mr. Southam noted that staff in Burlington are developing techniques using Geographic Information Systems to help geo-reference and assess the extent of recent and future changes in the crestline of the Horseshoe and American Falls.

g. Niagara River projects Mr. Yu noted that the Corps' Buffalo office was aware of four proposed projects submitted by US firms. Two projects, the Frog Island environmental restoration and the Maid-of-the-Mist boat storage facility, have already been approved by the Governments prior to the board meeting. Neither one is expected to have any transboundary impacts on water levels. The other two projects (one involving the use of "hydrokinetic turbines" located downstream of the Maid-of-the-Mist area near Lewiston, NY, and the other being a combined break wall maintenance and fish habitat enhancement, located just downstream of the Peace Bridge near the Broderick Park area) are only in their preliminary analysis phase. All project proponents were provided the IJC's Guide to Applications for projects in transboundary waters.

Item 11. Next Board meeting and IJC appearance

The Board noted that its Appearance with the IJC is scheduled for the morning of April 18; the Reception is on the previous evening. The next Board meeting is tentatively scheduled for the week of September 16-20 in the Toronto-Burlington-Niagara Falls region.

The meeting adjourned at 3:45 p.m.

INTERNATIONAL NIAGARA BOARD OF CONTROL
MEETING OF MARCH 20, 2013

Approved Agenda

1. Approval of Agenda
2. Update on Board, Working Committee, INC
3. Update on Lake Erie/Niagara River conditions
4. Review of ice season activities and conditions
5. Chippawa-Grass Island Pool operations
 - a. Operations during reporting period
 - b. Maintenance issues
 - c. Review of Directive
6. Review discharge measurements program
 - a. Welland Canal
 - b. Niagara River
 - c. Update on revising the Buffalo rating equation
 - d. Need for updating Fort Erie equation
7. OPG Tunnel
8. 2012 Meeting with the Public
 - a. Date and venue
 - b. Display maps
9. Review Semi-Annual Progress Report
10. Other Business
 - a. FAQs
 - b. Temporary gauge at MoM
 - c. Niagara Gauges
 - d. MNR comments on CGIP fluctuations
 - e. September 2012 minutes
 - f. GIS
 - g. Niagara River Projects
11. Next Board Meeting and IJC Appearance