

INTERNATIONAL NIAGARA BOARD OF CONTROL

Minutes of the March 22, 2012 Meeting
Watertown, NY

Colonel Drolet called the meeting to order at 1:22 pm in a conference room of the Ramada Hotel, Watertown, New York. Those in attendance were:

<u>UNITED STATES</u>	<u>CANADA</u>
<u>BOARD MEMBERS</u>	
COL J. Drolet, Alt. Chair	Mr. A. Thompson
<u>SECRETARIES</u>	
Mr. J. Kangas	Mr. C. Southam
<u>WORKING COMMITTEE AND ASSOCIATES</u>	
LTC S. Bales	Ms. J. Frain
Mr. E. Tauriainen	Mr. P. Kowalski
Mr. P. Yu	Mr. B. Warren
Mr. J. Allis	Mr. T. McAuley, IJC
Mr. N. Agnoli	
Ms. C. Fisher	
Dr. M. Colosimo, IJC	
Ms. D. Glance, IJC	

Item 1. Approval of Agenda

The Board approved the agenda after adding items to Other Business (Encl 1).

Item 2. 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 51 % above average for the September 2011 – February 2012 period. The Lakes Michigan-Huron level is higher than a year earlier and is expected to stay below average for the next 6 months. Lake Erie outflows were above average during the September 2011 – February 2012 period. Lake Erie water level rose sharply in late November and December in response to heavy precipitation. Currently, the lake is about 32 cm (13 in) above average. The latest 6-month forecast indicates that Lake

Erie's level will likely remain above average through the summer; however, levels could fall below average under low water supply conditions.

Item 3. Review of Ice Season Activities and Conditions

The Board was provided a summary of the 2011-2012 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 17 and was completed on December 18. The water temperature reached 4 °C (39 °F) on December 29.

This ice season was remarkable for its lack of ice. With open water and a number of wind events, the ice boom broke 4 times. Two of the breaks were repaired with spare boom spans, and two were repaired by splicing the broken cables. With the lack of ice, the boom was opened for the earliest time ever since its initial placement. The first spans were removed on February 28 and the final spans were removed on March 2. All spans were pulled into the storage area by March 20. The usual ice flights and ice thickness measurements were cancelled this year. This ice season was the 3rd ice-free season in Eastern Lake Erie since the ice boom installation first began in 1964-1965.

Item 4. Chippawa-Grass Island Pool Operations

Mr. Yu and Mr. Kowalski 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 two days in September for police activity; two days in December for high flows, eight days in January for high flows, two days each in February for high flows and life saving activities, and for one day in March for high flows.

The hydraulic lines of Gates 1, 3, 6, 7, and 11 were replaced in 2011 and the lines for Gates 4, 5, 8, 9, 12 and 13 to be 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.

Item 5. Review discharge measurement programs

a. Welland Canal. Mr. Tauriainen reported on the Welland Canal measurement program. Measurements will be taken in late April and early May by Corps of Engineers and Environment Canada staffs. The St. Lawrence Seaway will provide water level measurements during the measurement program. The measurements taken in 2010 were not useable due to the Seaway's inability to provide water level data but assurances have been made by the Seaway (Fraser Johnston) that they will provide the required water levels.

b. Niagara River Mr. Tauriainen reported that flow measurements will be taken in late April and early May both upstream and downstream of the Railway Bridge. Two measurement crews will be employed. Measurements at the American Falls Section using a tethered boat will be taken in May.

c. Buffalo rating equation revision update. The Board's Working Committee has begun a review of the Buffalo rating equation. An analysis of past measurements was conducted by Ms. Noorbakhsh of the Detroit District, Corps of Engineers. A draft report will be reviewed by the Working Committee before the next Board meeting.

Item 6. OPG tunnel status and plant upgrades

Ms. Frain reported on the tunnel status. As of March 19, placement of concrete in the arch portion of the tunnel is completed for 5600 m (18,370 ft). Work on the invert and profile restoration is completed for 8300 m (27,230 ft) and 6200 m (20,340 ft), respectively. Contact grouting has been completed for 3300 m (10,830 ft) and the pre-stress grouting for 1500 m (4,920 ft). The tunnel is expected to be available for use in December 2013.

Ms. Frain also noted that upgrades continue on the Beck 1 units. Unit G7 was returned to service in February 2012. Upgrades to unit G3 are expected to start in April and take about a year.

Item 7. 2012 Meeting with the Public

The Board discussed the preliminary plans for the 2012 annual meeting with the public. The meeting will be held in the State of New York, near Niagara Falls. Several new venue options are being considered. 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 meeting with the public was held on August 17, 2011, at a hotel in Niagara Falls, Ontario.

Item 8. Review Semi-Annual Progress Report

The Board reviewed, revised and approved the 118th Semi-Annual Progress Report to the International Joint Commission. The report will be sent to the Commission by the end of March. An advance copy will be furnished electronically.

Item 9. Other Business

a. Kinetic turbines in the upper Niagara River Mr. Yu reported that a recent study funded by the US Army Corps of Engineers to put turbines in the upper Niagara River to generate power concluded that it was not economically feasible. Another company called ECOsponsible, Inc. had also filed and was granted a preliminary permit from the Federal Energy Regulatory Commission (FERC) to do a similar study. However, it appears that ECOsponsible, Inc did not fulfill their application requirements

and their permit was subsequently revoked in Feb 2012, by FERC. The Board had a general discussion on the permitting requirements for each country. It was noted that the IJC is finishing a "Guide to Applications" for projects under the Boundary Waters Treaty. Whether the Corps of Engineers can put a requirement into a permit to preclude any transboundary water level impacts was not clear and will be addressed by the Working Committee prior to the next Board meeting.

b. Board brochure update Mr. Kangas provided some background on the work that led to a redraft of the Board brochure. A better IJC logo was requested. The Board approved the new brochure. Final coordination with the IJC Public Information Officers will be done before any brochures are printed. The Board also gave approval for the Secretaries to begin work on a new brochure for the Lake Erie-Niagara River ice boom.

c. Niagara Gauges. Mr. Southam described the November – December 2011 issues with the Ashland Avenue gauges. For reasons not yet known, the gauge readings began to disagree on November 10. This continued into early December. NOAA has revised its final reported numbers for its gauge. The International Niagara Committee (INC) reports of Niagara Falls flows for the days in questions will be revised. The reported amount of water going over the Falls will be adjusted slightly higher. Based on this incident, preliminary water level data will be screened at least once a week. Staff at the Control Structure and Environment Canada routinely access the gauge and will do a screening as a part of their normal operations.

The Ontario Power tailrace water level gauge was inoperable from May 24 to October 4, 2011. Ontario Power Generation is planning to install a temporary water level gauge at the Maid-of-the-Mist dockage area later this spring. Should this location provide reliable data, it may become a backup for the OP tailrace gauge.

d. Frog Island LTC Bales briefly described the Frog Island environmental restoration project. The area is just downstream of Strawberry Island in the upper Niagara River. As part of its relicensing agreement, the New York Power Authority agreed to restore about 4 acres of habitat that have eroded over the past 50 years. The restored land will be about 6 inches (15 cm) above the long-term average water level. The impact on water levels is expected to be minimal.

e. 1993 Directive The Power Entities noted that the language of the 1993 Directive that covers the operation of the Chippawa-Grass Island Pool structure refers to "mean" hourly flows as determined by the Fort Erie rating. It was noted that the operational procedure has always been to use top-of-the-hour readings. The Board agreed to provide clarification to the Power Entities on this interpretation of the

Directive. Mr. Southam indicated that he would like to review the Directive for any additional anomalies in its wording.

f. Tightrope walker Mr. Thompson noted that the Niagara Parks Commission had recently granted approval for a person to cross the Falls by walking across atop a cable. The Power Entities will be kept informed for a potential rescue operation.

g. Warning sign Mr. Southam noted the several attempts by the former Canadian Secretary of the Board to have a warning sign replaced. Should boaters not see the sign and approach the Falls an emergency closure of the Control Structure may be required to save lives. The Board agreed that reasonable attempts had been made to replace the sign, and agreed that this is an issue that should be pursued by local authorities.

Item 10. Next Board meeting and IJC appearance

The Board noted that its Appearance with the IJC is scheduled for the morning of April 25; the Reception is that evening. The next Board meeting is tentatively scheduled for the week of September 17-21 in the Kingston region.

The meeting adjourned at 3:45 p.m.

INTERNATIONAL NIAGARA BOARD OF CONTROL
MEETING OF MARCH 22, 2012

Approved Agenda

1. Approval of Agenda
2. Update on Lake Erie/Niagara River conditions
3. Review of ice season activities and conditions
4. Chippawa-Grass Island Pool operations
5. Review discharge measurements program
 - a. Welland Canal
 - b. Niagara River
 - c. Update on revising the Buffalo rating equation
6. OPG Tunnel status
7. 2012 Meeting with the Public
8. Review Semi-Annual Progress Report
9. Other Business
 - a. Kinetic turbines in the upper Niagara River
 - b. Board Brochure Update
 - c. Niagara Gauges
 - d. Frog Island
 - e. 1993 Directive
 - f. Tightrope walker
 - g. Warning sign
10. Next Board Meeting and IJC Appearance