



Mr. D. G. Chase
Secretary
International Joint Commission
Burnside Building
151 Slater Street
Ottawa, Ontario

April 21, 1971

Dear Sir,

I have been instructed by Cominco Limited and West Kootenay Power and Light Company Limited, to file with the Commission two duplicate originals and 50 copies of an application by Cominco Limited to the Commission dated April 21, 1971 for an order permitting the storage of two feet of water in Kootenay Lake, British Columbia additional to the six feet of storage authorized by the Commission's Order of Approval of November 11, 1938. A copy of this letter and the two duplicate originals and 50 copies of the application will be mailed to you in a separate package.

Yours very truly,

M. H. Mason
Assistant General Counsel

MHM:bf



APPLICATION OF COMINCO LTD.
to the
INTERNATIONAL JOINT COMMISSION

for permission to store two feet of
water in Kootenay Lake in addition to
the storage authorized by the Order
of Approval dated November 11, 1938.

April 21, 1971

To the Honourable The International Joint Commission,
Ottawa, Canada, and
Washington, D.C.

The application of Cominco Ltd. (formerly
The Consolidated Mining and Smelting Company of Canada
Limited), respectfully shows as follows:

1. The Applicant is a body corporate, incorporated by letters patent, dated January 9, 1906, issued by the Secretary of State under the Companies Act of the Dominion of Canada. Its head office is in the City of Montreal, in the Province of Quebec, and its principal places of business in the Province of British Columbia are in the Cities of Vancouver and Trail.

2. The Applicant is authorized and empowered, among other things, to acquire and hold water rights and privileges, develop and supply electric power, and to do all necessary or incidental things in that connection.

3. The Applicant is the owner of certain properties situated on the Kootenay River in British Columbia, including the dam and power plant at Corra Linn and the power plants at Upper Bonnington, South

Slocan, and Brilliant on the Kootenay River.

4. The Applicant is the holder of several subsisting licences granted by the Comptroller of Water Rights of British Columbia to divert and use the water of Kootenay River for power purposes at those power plants.

5. The Applicant is the holder of a subsisting licence granted by the Comptroller of Water Rights of British Columbia, to store 840,000 acre feet of water in Kootenay Lake. West Kootenay Power and Light Company, Limited ("West Kootenay Power") is the holder of a similar subsisting licence to store 210,000 acre feet of water in Kootenay Lake.

6. Kootenay Lake is entirely within British Columbia, and the Kootenay River (called the Kootenai River in the United States) flows across the boundary between the United States and Canada, within the meaning of Article IV of the Boundary Waters Treaty of January 11, 1909: the delta of that river lies partly in the Province of British Columbia and partly in the State of Idaho.

7. By an Order of Approval of the Commission, dated at the City of New York, November 11, 1938, the

Commission ordered and directed, among other things, that West Kootenay Power, a body corporate constituted by a special act of the Legislature of the Province of British Columbia, with a head office and principal place of business in the City of Trail, British Columbia, be permitted to store water in Kootenay Lake to a maximum elevation of 1745.32 feet Geodetic Survey of Canada Datum, 1928 Adjustment, which constituted six feet of storage above zero of the gauge at Nelson, British Columbia.

8. By a letter dated August 20, 1947, addressed to the Commission at Ottawa, the Applicant gave notice that it had purchased, in addition to other property, the dam at Corra Linn, by means of which the storage of water in Kootenay Lake is regulated under the Commission's Order of November 11, 1938, and furthermore undertook strictly to abide by the terms of that order in full cooperation with the International Kootenay Lake Board of Control.

9. By orders of the Commission dated June 30, 1941, January 28, 1942, June 18, 1942, October 23, 1942, August 5, 1949, and August 12, 1966, the Commission granted permission to the Applicant or its predecessor to store two additional feet of water in Kootenay Lake

to a maximum elevation of 1747.32 feet, Geodetic Survey of Canada Datum, 1928 Adjustment (at the Queen's Bay gauge in Kootenay Lake), for varying periods of time.

10. Since March 1, 1967, the Applicant and West Kootenay Power have created no storage of water in Kootenay Lake in addition to the storage of six feet granted by the Commission's Order of November 11, 1938.

11. The Applicant and West Kootenay Power have at all times fully complied with all the directions of the Commission and of the International Kootenay Lake Board of Control, and in particular have strictly observed the terms and conditions of the orders of the Commission.

12. This application is prompted by requests from Intalco Aluminum Corporation and associated industries in the northwest states of the United States that additional water be stored in Kootenay Lake and regulated in such a way as to avoid an interruption in their power supply which could occur in the event of adverse water conditions during the fall and winter of 1971-1972 and 1972-1973. Another threat to power

resources of the northwest states is damage to the converter station of the City of Los Angeles at Sylmar California, caused by an earthquake on February 9, 1971, which put out of service the 800,000 volt direct current transmission line between Los Angeles and Celilo on the Columbia River in Oregon. It currently is estimated that this transmission line cannot be restored to full service until August or September, 1972. Its unavailability will make it impossible for power interests in the northwest states to receive either firm energy contracted for from sources in the southern part of California or surplus energy which probably would otherwise be available from such sources. Thus, adverse water conditions or the lack of adequate access to generation in the southern part of California could interrupt the power supply of the requesting industries.

13. Filling of the Libby Reservoir is scheduled to commence about May 1, 1972. It is anticipated that in 1972 a considerable volume of water, which would otherwise be available for filling Kootenay Lake, will be stored in the Libby Reservoir. As a result of this reduction in the inflow to Kootenay Lake, and a constraint imposed by the Commission's Order of November 11, 1938 for the flood period, difficulties

could be encountered in filling Kootenay Lake. It is proposed by this application, for the storage season of 1972, that in addition to the extra storage a revised filling procedure be permitted as outlined in sub-paragraph (e) of Paragraph 17.

14. It is proposed that agreements entered into between the Applicant and the requesting industries require that the Applicant be fully indemnified by those industries regarding the Applicant's costs in connection with this application and respecting all claims of interests in Canada and the United States regarding loss or damage or respecting other remedial measures arising out of the proposed two feet of additional storage. The Applicant has been informed that in the event of the Commission granting this application, storing arrangements can be made by those industries with Bonneville Power Administration ("B.P.A."), an agency of the United States Government which markets power and controls storages for the federal Columbia River power system. This will have the effect of increasing the usable power available to those industries from the additional storage in Kootenay Lake. Satisfactory operating arrangements will be made with B.P.A. to ensure optimum use of the proposed

storage for the benefit of the power systems of the Applicant and West Kootenay Power.

15. It is recognized that the proposed storage would be of benefit to B.P.A. and to the U.S. interests referred to. Moreover, regulation as proposed would result in benefits to Canada. For example, additional usable or saleable energy would be produced at the Applicant's power plants from the additional storage. Further, the British Columbia Government would benefit from a generation fee amounting to .004¢ per kilowatt-hour for the estimated energy produced downstream in the United States from the additional two feet of storage in Kootenay Lake.

16. The Applicant has previously referred to the Commission's orders dated October 23, 1942, August 5, 1949, and August 12, 1966, which authorized two feet of storage in Kootenay Lake in addition to the six feet of storage authorized by its Order of Approval of November 11, 1938. Those orders were made after full opportunity was given to all interests to make representations and after public hearings in the United States and Canada at which full consideration was given by the Commission to those representations.

17. The Applicant requests therefore that, without prejudice to the rights of the Applicant and West Kootenay Power under the Commission's Order of Approval of November 11, 1938, and their respective water licences, an order be made by the Commission authorizing the storage of two additional feet of water in Kootenay Lake for the period of two (2) storage years to commence with the storage season of 1971-72, subject to the following conditions:

- (a) All Lake elevations prescribed in the Order shall be determined at the Queen's Bay gauge, and shall be derived from the Queen's Bay Benchmark 1 - the top of a three-quarter inch steel plug set in bed-rock - elevation 1768.77 feet, Geodetic Survey of Canada Datum, 1928 Adjustment, as shown in the records of the Dominion Water and Power Bureau, Canada.
- (b) In 1971, after the date of the Order, and following the flood peak at Kootenay Lake, the gates of Corra Linn Dam may be so operated as to raise to and/or hold the level of the lake at

9.

the maximum storage level of 1747.32 feet until January 7, 1972. Thereafter the Lake shall be lowered so that it shall not exceed elevation 1744 feet on February 1, 1972, elevation 1742.4 feet on March 1, 1972, and elevation 1739.32 feet on or about April 1, 1972, except that under extraordinary natural high inflow conditions, the Applicant will not be in violation of the Order if the forebay level at the Corra Linn Dam is maintained essentially at the free outflow elevation.

- (c) Essentially the free outflow requirement will be satisfied if the Corra Linn forebay is maintained at or below a curve defined by the following tabulation:

<u>Lake Elevation</u> (feet)	<u>Forebay Elevation</u> (feet)
1739.32	1735.0
1745.32	1736.0
1750.0	1737.0
1761.0	1741.0

10.

- (d) During the month of April 1972, the Applicant will attempt to control the maximum level of the Lake to elevation 1739.32 feet by lowering the Corra Linn forebay to elevation 1735 feet as required.
- (e) After April 30, 1972, the gates of the Corra Linn Dam may be so operated so as gradually to raise the level of the Lake on a straight line from elevation 1739.32 feet on May 1, 1972, to elevation 1747.32 feet on June 10, 1972. If inflow conditions are such that the level of the Lake rises above the stated elevations, or above elevation 1747.32 feet after June 10, 1972, the gates of the Corra Linn Dam will be operated to provide free outflow.
- (f) After the high flow period in 1972, elevation 1747.32 feet will be the maximum storage level until January 7, 1973, and thereafter the lake shall be lowered so that it shall not exceed elevation 1744 feet on

11.

February 1, 1973, elevation 1742.4 feet on March 1, 1973, and elevation 1739.32 feet on or about April 1, 1973, except that under extraordinary natural high inflow conditions, the Applicant will not be in violation of the order if the forebay level at the Corra Linn Dam is maintained essentially at the free outflow elevation.

- (g) Sections 6 to 13, inclusive, of the Commission's Order of Approval dated August 12, 1966 (a copy of which is attached and marked Exhibit A), and the above conditions shall be embodied in any order made consequent on this application.

Respectfully submitted,

Dated at
Vancouver, British Columbia,
April 21, 1971.

M.H. Mason,
Assistant General Counsel,
Cominco Ltd.

12.

WEST KOOTENAY POWER AND LIGHT COMPANY, LIMITED

hereby approves and supports the foregoing application of Cominco Ltd., dated April 21, 1971, to the International Joint Commission for permission to store two feet of water in Kootenay Lake in addition to the six feet of storage authorized by the Order of Approval of the International Joint Commission dated November 11, 1938.

WEST KOOTENAY POWER AND LIGHT
COMPANY, LIMITED

Dated at W. K. Gwyer, President
Vancouver, British Columbia
April 21, 1971.

EXHIBIT A

INTERNATIONAL JOINT COMMISSION

IN THE MATTER OF THE APPLICATION OF COMINCO LTD. (FORMERLY THE CONSOLIDATED MINING AND SMELTING COMPANY OF CANADA LIMITED) TO STORE TWO FEET OF WATER IN KOOTENAY LAKE IN ADDITION TO THE STORAGE AUTHORIZED BY THE COMMISSION IN ITS ORDER OF APPROVAL OF NOVEMBER 11, 1938.

ORDER OF APPROVAL

WHEREAS Cominco Ltd. (hereinafter referred to as the Applicant) is a body corporate having its head office in the City of Montreal in the Province of Quebec and its principal place of business in the municipality of Tadanac near the City of Trail in the Province of British Columbia; and

WHEREAS, by an Order dated November 11, 1938, the International Joint Commission, under authority of Article IV of the Boundary Waters Treaty of January 11, 1909, approved the Application of West Kootenay Power and Light Company, Limited, to construct and operate certain works in and adjacent to the channel of the Kootenay River below Kootenay Lake in the Province of British Columbia, and to store water in Kootenay Lake in the said Province to a maximum elevation of 1745.32 feet, Geodetic Survey of Canada Datum, 1928 adjustment; said Company being required by the Order to have the lake drawn down to elevation 1739.32 feet by April 1, or about that date, each year; and

WHEREAS the Commission, by an Order dated June 30, 1941, approved as a temporary measure during 1941-42 storage season only, the Application of West Kootenay Power and Light Company, Limited to store two feet of water in Kootenay Lake over and above that approved by the Commission in its Order of November 11, 1938, to a maximum elevation of 1747.32 feet; after which the terms of the Order of November 11, 1938, were to be in full force and effect; and

WHEREAS, by Orders of Approval adopted by the Commission in 1942, during World War II, the last of which was dated October 23, 1942, the Commission approved the Applications of West Kootenay Power and Light Company, Limited to continue to store the said additional two feet of water in Kootenay Lake each season until April 1, 1944, or until the cessation of hostilities, whichever should occur first; and said approval expired on April 1, 1944; and

WHEREAS, by an Order dated August 5, 1949, the Commission approved the joint application of West Kootenay Power and Light Company, Limited and The Consolidated Mining and Smelting Company of Canada Limited, without prejudice to their rights under the Commission's Order of November 11, 1938, to store two additional feet of water in Kootenay Lake, between elevations 1745.32 and 1747.32, by regulation

of the flow through the Corra Linn Dam and Power plant;
the approval to end with the storage season of 1953-54,
viz., April 1, 1954; and

WHEREAS the Applicant without prejudice to its rights
under the Commission's Order of November 11, 1938 has
forwarded to the Commission through the Government of
Canada an Application dated July 11, 1966, for approval
to store two additional feet of water in Kootenay Lake,
between elevations 1745.32 and 1747.32, during the storage
season of 1966-67 only, by regulation of the flow through
the Corra Linn dam and Power plant; and

WHEREAS it is stated in the Application that it was
prompted by a request from Kaiser Aluminum and Chemical
Corporation and associated industries in the Northwest
States of the United States that additional water be
stored in Kootenay Lake and regulated in such a way as to
avoid an interruption in their power supply which could
occur in the event of adverse water conditions during the
fall and winter of 1966-67; and the said industries propose
to arrange with Bonneville Power Administration for an
increase in their power supplies if the Application is
approved; and

WHEREAS it is stated in the Application that the pro-
posed storage and regulation during the low flow season

of 1966-67 would also result in substantial benefits in Canada, including an increase of about twenty-three megawatts in the firm capability of the Applicant's four power plants and an increase of about four megawatts in the firm capability of the Lower Bonnington power plant owned by West Kootenay Power and Light Company, Limited, which plants are located on the Kootenay River below Kootenay Lake; and

WHEREAS West Kootenay Power and Light Company, Limited has recorded its approval and support of the Application; and

WHEREAS the Kootenay River is an international stream flowing across the boundary between the United States and Canada, within the meaning of Article IV of the Boundary Waters Treaty of 1909; and

WHEREAS, while Kootenay Lake is entirely within the Province of British Columbia, the fertile lands comprising the delta of the Kootenay River, commonly known as the Kootenay Flats, lie partly in that Province and partly in the State of Idaho; and

WHEREAS, if the level of Kootenay Lake is raised two feet; from elevation 1745.32 feet to elevation 1747.32 feet, as requested by the Applicant, the levels of the Kootenay River at and above (south of) the international

boundary in the United States will also be raised; and under Article IV of the said Treaty this may not be done without the prior approval of the Commission; and

WHEREAS the Applicant has expressed its willingness to be bound to pay all expenses and to be held liable for any damage or injury that may be sustained by interests on the United States and/or Canadian side of the international boundary, as a result of the two additional feet of storage in Kootenay Lake, including the cost of additional pumping and construction of additional drainage facilities, which may arise by reason of the additional storage, and to pay for all damage to lands or crops in the drainage districts or other areas on either side of the boundary adversely affected by the said additional storage; and

WHEREAS the Applicant proposes to enter into an agreement with Kaiser Aluminum and Chemical Corporation and associated industries in the Northwest States of the United States under which the Applicant will be indemnified by them respecting all claims of interests in Canada and the United States regarding such loss or damage, or other remedial measures arising out of the two feet of additional storage; and

WHEREAS there has been eight years of experience in the storage of water on Kootenay Lake between elevations 1745.32 and 1747.32; and

WHEREAS, in order to take advantage of surplus water available during August, 1966, and in the special circumstances described herein, the Commission concluded that it would be in the public interest and not prejudicial to the right of interested persons to be heard in accordance with Article XII of the said Treaty, to conduct hearings of the Application sooner than is normally provided; and accordingly, pursuant to Rule of Procedure 19, the Commission reduced the times specified in its Rules of Procedure 15, 16 and 23; *and*

WHEREAS the said Application came on for hearing in Creston, British Columbia, on August 11, and in Bonners Ferry, Idaho on August 12, 1966, when evidence was presented by the Applicant and other parties, and all interested parties in both Canada and the United States desiring to present evidence or make statements were given full opportunity to be heard; and

WHEREAS at the hearings it was stated that a temporary shortage of power for certain vital industries may occur in the United States portion of the Columbia

River Basin during the 1966-67 low flow season; and that the proposed storage and regulation would increase by about 400,000 kilowatt-months the power produced at hydro-electric plants on the Columbia River which are owned by the United States Government, and by about 150,000 kilowatt-months the power produced at other hydro-electric plants on the Columbia River in the United States; and

WHEREAS at the hearings, the Government of Canada, the Government of the United States and the Government of British Columbia stated, through Counsel, that the said Governments had no objection to approval of the Application subject to appropriate conditions; and

WHEREAS the Commission, acting under the authority conferred upon it by the Treaty, having considered the Application and all of the evidence submitted, both oral and documentary, is of the opinion that, as a measure of relief from anticipated power shortages in both the United States and Canada it would be in the public interest to permit an upward deviation from the basic storage programme approved in the Order of November 11, 1938; and

WHEREAS, the Minister of Mines and Technical Surveys of Canada has granted an exception under the International River Improvements Act for the two feet additional storage requested by the Applicant, subject to the approval of the Commission.

NOW THEREFORE THIS COMMISSION ORDERS AND DIRECTS:

That the Application of Cominco Ltd., dated July 11, 1966, for approval to store two additional feet of water in Kootenay Lake between elevations 1745.32 and 1747.32 feet, be and the same is hereby approved, subject to the following conditions:

1. This approval is for the storage season of 1966-67 only, commencing on the date of this Order and expiring when the level of Kootenay Lake at the Queen's Bay gauge reaches elevation 1739.32 or April 1, 1967, whichever occurs first, unless otherwise ordered by the Commission; and the Applicant's regulation of the lake shall be in accordance with the formula hereinafter set forth.

2. All lake elevations prescribed in this Order shall be determined at the Queen's Bay gauge, and shall be derived from the Queen's Bay Benchmark 1 - the top of a three-quarter inch steel plug set in bedrock - elevation 1768.77 feet, Geodetic Survey of Canada Datum, 1928 adjustment.

3. After the date of this Order, the gates of the Corra Linn dam may be so operated, as to store surplus water not immediately required for power production, so that the level of the lake may be raised to elevation 1747.32 feet.

4. Elevation 1747.32 feet shall be the maximum storage level until January 7, 1967 and thereafter the lake level shall be progressively lowered so that it will not exceed elevation 1745.6 feet on February 1, 1967, elevation 1743.2 feet on March 1, 1967 and elevation 1739.32 feet on or about April 1, 1967, except under extraordinary high inflow conditions, when a sufficient number of gates of the Corra Linn Dam shall be opened and kept open throughout such period of excess inflow, so as to cause the lake to be lowered, if possible, to meet the foregoing prescribed requirements.

5. Notwithstanding the dates referred to in paragraph four, the Applicant shall, so far as practicable, withdraw the two feet of storage from the lake by December 1, 1966, and ~~that~~, so far as practicable, the lake will be drawn down to zero level (1739.32 G.S.C. 1928 datum) by March 1, instead of April 1, 1967, as now required by the 1938 Order of the International Joint Commission.

6. In order to ensure the carrying out of the provisions of this Order, the Commission retains jurisdiction over the regulation of the levels of Kootenay Lake, through its existing International Kootenay Lake Board of Control, hereinafter referred to as "the Board". The Board, under the direction of the Commission, is hereby charged with the duty of securing compliance with the provisions of this Order insofar as they relate to the regulation of the levels of Kootenay Lake; and in addition to the duties above and hereinafter particularly mentioned, it shall perform and discharge such other duties as may from time to time be assigned to it by the Commission. The Board shall report to the Commission at such times as the Commission may determine. In the event of any disagreement between the members of the Board, the matter shall be referred by them to the Commission for final decision. The Board may at any time make representations to the Commission in regard to any matter affecting or arising out of the terms of this Order.

7. (1) Pursuant to provisions embodied in Article VIII of the said Treaty, the Commission hereby requires that the Applicant, its successors or assigns, shall suitably and adequately protect and indemnify all interests on the United States side of the international boundary which may be injured as a result of the additional storage in Kootenay Lake above elevation 1745.32 feet. Without limiting the generality of the foregoing language the said

Applicant is hereby specifically bound to pay all expenses that may be incurred on the United States side of the international boundary, including the costs of additional pumping and of the construction of additional drainage facilities, which may arise in the State of Idaho by reason of the said additional storage, and to pay for all damage to lands or crops in the drainage districts or reclamation districts or other areas in the State of Idaho adversely affected by the said additional storage; and such payments to be irrespective of and additional to the amounts the Applicant is or may be required to pay under the terms of the Commission's Order of November 11, 1938.

(2) All damage claims which may arise in Idaho as the result of the additional two feet of storage shall in the first instance be submitted for approval to the Kootenai Valley Reclamation Association, which will act as the agent for the claimants in dealing with the Applicant. In case of disagreement between the said Association and the Applicant, the claim or claims in question shall be referred for decision to the Board, and in the event of a disagreement in the Board such claim or claims shall be referred to the

Commission for final determination. The aggregate amount of money, determined in accordance with the above prescribed procedure to be due the Idaho reclamation farmers at any time in settlement of their claims, shall be paid promptly by the Applicant. The reclamation farmers of Idaho shall present their claims, in accordance with the procedure hereinbefore prescribed, within a reasonable time after they become cognizant of the damages and the said Association shall notify the Applicant of such claims within a reasonable time, but failure to do so shall not preclude the right of the said farmers to just compensation.

8. All damage claims which may arise in British Columbia as a result of the additional two feet of storage shall in the first instance, be submitted to the Applicant, and failing settlement, are subject to adjudication in accordance with the laws of Canada in a court of competent jurisdiction in British Columbia.

9. Nothing in this Order shall be construed as freeing and relieving the Applicant of any liability arising out of injuries, damage or loss,

sustained by reason of their storage operations, by any person or persons or corporation or any other interests in Canada or the United States, which may be affected by such operations and which are not otherwise provided for herein.

10. The Applicant shall make available to the Board such data relating to the discharge through the Corra Linn Dam and power plant, or relating to power load, as the Board may consider to be desirable or necessary to enable it to ensure observance of the provisions of this Order.

11. The regulation of the flow of water through the Corra Linn Dam, to the extent required under the conditions of this Order, shall be subject to the supervision and control of the Board, under the direction of the Commission.

12. The Commission, on the report of the Board, may determine that an emergency condition exists, and may then require the Applicant to cooperate fully with the Board in regulating the flow of water through the said Corra Linn Dam, to the end that the rights and interests of all parties may be protected so far as it is practicable so to do.

13. The provisions of the Commission's Order dated November 11, 1938, shall continue in full force and effect save insofar as such provisions are modified or extended by this Order.

The Commission retains jurisdiction over the subject matter of this application and, after giving such notice and opportunity to all interested parties to make representations as the Commission deems appropriate, may make further order or orders relating thereto as may be necessary in the judgment of the Commission.

This approval will terminate thirty (30) days after the signing of this Order unless within that time the Applicant informs the Commission in writing that it accepts all the conditions set forth herein.

SIGNED this 12th day of August, 1966.

D. J. P. Henry
Matthew H. Walsh
R. E. Stephens
René Dupuis