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APPLICATION  
— OF —  
**The St. Croix  
Water Power Company**

— TO —  
THE INTERNATIONAL JOINT  
COMMISSION



FOR APPROVAL OF THE DIVERSION OF  
THE WATERS OF THE SAINT  
CROIX RIVER



CURRAN AND CURRAN,  
*Solicitors for Applicant.*

**TO THE HONORABLE THE INTERNATIONAL JOINT  
COMMISSION, Washington, D. C.**

**AND**

**TO THE HONORABLE THE INTERNATIONAL JOINT  
COMMISSION, Ottawa, Ontario.**

**APPLICATION OF THE ST. CROIX WATER  
POWER COMPANY, for approval of diversion  
of the waters of the St. Croix River.**

THE UNDERSIGNED, as Solicitor for the St.  
Croix Water Power Company, (hereinafter called the  
Company), respectfully represents:—

(1) That the St. Croix Water Power Company is a  
corporation chartered by special Act of the Maine  
Legislature Chapter 203, Acts of 1899, for the purpose  
of making such improvements in the St. Croix River as  
will enable the said Corporation to store water for the  
purpose of increasing the volume of water in the said  
St. Croix River in times of drought, either in Summer or  
Winter, by owning or building dams, flowing said  
rivers, lakes, ponds and streams, and deepening the  
water channels connected therewith, and it was  
provided by said Act of Incorporation as follows:—

“Section 2. Said Corporation is authorized  
to hold such amount of real and personal estate as  
may be necessary for the purpose of its incorpor-  
ation.

“Section 3. All dams and other structures  
authorized herein, shall be so constructed with the  
proper rollways, sluiceways, gates or other con-  
trivances as to facilitate and not impede or interfere  
with the floating or driving of logs; and nothing  
herein shall abridge, impair or interfere with the  
chartered rights of the Saint Croix Log Driving  
Company, nor with the free use of said waters so  
far as needed for driving logs or lumber.

“Section 4. Said Corporation shall have the  
power to purchase, own and erect dams in the  
waters aforesaid, with suitable gates, sluice-ways,

rollways or other contrivances for the passage of logs and lumber, with the right to clear and deepen the channels of said waters, and to remove obstructions therefrom.

"Section 5. Said Corporation is hereby empowered to transmit electric power from its said dams, for lease or sale, to such points as may be feasible, in such manner as may be expedient, and, subject to the general laws of the State regulating the erection of posts and lines for the purpose of electricity, it may erect and maintain all posts, wires and fixtures necessary therefor."

(2) The Stockholders in this Company and in the Sprague's Falls Manufacturing Co., of New Brunswick, are the same individuals, and the two Companies have worked, and are working in unison, for the purpose of carrying on and completing the undertaking hereinafter mentioned, the approval of which by the Honorable The International Joint Commission is hereby sought.

(3) This Company and the Sprague's Falls Manufacturing Co., have constructed a dam from bank to bank across the St. Croix River at or near Grand Falls, so called, on the said River, and have also excavated and constructed a power canal leading from a point about Six Hundred (600) yards above the said dam, and running through territory of the State of Maine to the said River at a point about Nine Hundred (900) yards below the said dam. The plans for said dam were submitted to and approved by the Water Storage Commission of the State of Maine, and said dam is provided with sluice gates sufficient to pass all the water of the said river either at low water, or at freshet time, which flows down the same. The object of the said dam is to create a reservoir for the storage of waters of the Saint Croix River, and to utilize for the purpose of generating powers, the waters so stored, by allowing the same to pass through the said power canal, and through the power house which the Saint Croix Water Power Company has erected in the state of Maine at the junction of the said canal with the said river below the said Falls.

(6) The effect of so storing the water will be to utilize, or make uniform, to a very large extent, the flow of the waters of the Saint Croix River, which will make the stream much more valuable for power purposes, both at the said Falls, and below the junction of the said power canal with the River below the said Falls. The power to be generated by the said works when completed, will vary from a minimum of Four Thousand (4000) Horse Power to a maximum of Twelve Thousand (12,000) Horse Power.

(4) Hereto annexed and marked "A," is a plan of the said dam which is about completed, and hereto annexed and marked "B," is a plan of the said power canal, head gates and power house, which are also about completed, and hereto annexed and marked "C," is a plan showing the proposed reservoir, and the lands which will be flowed thereby.

(5) The effect of the said dam will be to divert the waters of the said the Saint Croix River on the New Brunswick side, and cause them to flow through the State of Maine, thereby altering the level of the waters on the United States side of the boundary line. And also to divert the waters of the said river on the United States side of the said International Boundary line, thereby altering the level of the waters of the said river on the New Brunswick side of the said line.

(6) The Company before the commencement of the said dam, and of the said power canal, purchased all the riparian lands along said river on the Maine side at the said Grand Falls along the said river above the said Falls to a point above where the said power canal leaves the said river, and along the said river below the said dam to a point below the confluence of the said power canal with the Saint Croix River.

(7) That inasmuch as the Company had become the owner of these riparian lands and the Sprague's Falls Manufacturing Company has purchased the lands similarly situated on the New Brunswick side of the boundary line, and as all of the waters to be taken from the Saint Croix River by the said power canal would be returned to the said River after passing through the

said canal and before leaving the Company's lands, never occurred to the Company that it was necessary, in order to legalize the said undertaking, that the approval by Your Honorable Commission, of the said dam, power canal and diversion of the waters of the said River on the New Brunswick side of the International Boundary line, should be obtained.

(8) The Saint Croix Water Power Company, therefore hereby applies to Your Honorable Commission for the approval of the said dam and of the said power canal, and of the said proposed diversion through the said power canal, and the use by the said power Company of the waters of the Saint Croix River which would otherwise flow on the New Brunswick side of the International boundary line.

RESPECTFULLY SUBMITTED,  
and dated this thirtieth day of September, A.D. 1914.

*Curran & Curran*  
Solicitors for the St. Croix Water Power Company.

*Geo A Curran*  
*Ben J. Curran*

## INTERNATIONAL JOINT COMMISSION.

IN RE THE APPLICATIONS OF THE ST. CROIX WATER POWER CO. AND THE SPRAGUES FALLS MANUFACTURING CO. (LTD.), FOR APPROVAL OF A DAM AND POWER CANAL AND THE OBSTRUCTION, DIVERSION, AND USE OF THE WATERS OF THE ST. CROIX RIVER AT GRAND FALLS IN THE STATE OF MAINE AND THE PROVINCE OF NEW BRUNSWICK.

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ORDER OF APPROVAL.

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The above applications having come on for hearing at the city of Calais, in the State of Maine, on the 15th day of June, 1915, and having been continued to the 5th, 6th, and 7th days of October, 1915, at the city of Ottawa, Canada, on which last day the hearing was concluded, the said applications relating to the same subject matter being consolidated and heard as one application, and due notice of the filing of said applications and of the time and place of the said hearings having been given to all parties interested in both countries, the commission having heard the evidence adduced by all parties interested, including the statements of the engineer representatives of the United States and the Dominion of Canada in respect thereto, and also having heard counsel on behalf of all parties interested, finds as follows:

(a) The St. Croix Water Power Co. is incorporated by special act of the legislature of the State of Maine (ch. 203, Acts of 1899), and the Spragues Falls Manufacturing Co. (Ltd.) is incorporated by statute of the Dominion of Canada (2 Edward VII, ch. 103), both companies being incorporated for substantially the same purpose.

(b) Acting upon the supposition that no other authority was necessary than that given them by the aforesaid acts of incorporation, the said companies, acting in unison, proceeded to construct, and did construct, at Grand Falls a dam across the St. Croix River and a power canal on the United States side of the St. Croix River to convey the waters of the river to a power house situate a short dis-

tance below the dam, which dam is for the purpose and has the effect of obstructing and holding back the waters of the said river.

(c) The dam is of the Ambursen type. It is 820 feet long between the present Canadian shore line and the international boundary and 280 feet long between the present United States shore line and the international boundary, with an abutment on the Canadian shore 40 feet long and an abutment on the United States shore 100 feet long.

(d) The crest of the dam for a length of 80 feet on the United States side of the international boundary and for a length of 218 feet on the Canadian side is at an elevation of 198.70 above mean sea level; for a length of 340 feet on the Canadian side it is at an elevation of 198.10 feet above mean sea level; and for a further length of 22 feet on the United States side and 54 feet on the Canadian side it is at an elevation of 205.10 above mean sea level. Flashboards at an elevation of 201.20 above mean sea level cap the whole of the two lower sections of the crest. In the dam on the Canadian side are two submerged sluices 6 feet by 8 feet, with sills at an elevation of 167.60. These are controlled by gates operated by electric power. On the United States side are nine Tainter regulating sluice gates 1½ feet wide, with sills at an elevation of 196.10 and a log sluice at the shore end. The dam as now constructed contains no fishway.

(e) The power canal leaves the west branch of the St. Croix River a short distance above the dam and near the junction of the east and the west branches of the river. It is 2,700 feet long, 50 feet wide on the bottom at elevation 185.10, and 115 feet wide at elevation 202.10. This canal joins the St. Croix River a short distance below the dam, and at the junction is a power house having therein at present two (with space for a third) 54-inch Holyoke wheels with capacity of 4,000 horsepower each, under a 49-foot head.

(f) Provision for a fishway has been made in the dam at the lower end of the power canal. This fishway has been designed to permit the passage of fish up and down stream through the power canal, but the fishway is not yet completed.

The log sluiceway above referred to in the dam across the river is ample for the purpose of driving logs or lumber downstream.

(g) The two companies have constructed and are now using the said dam and power canal at Grand Falls for the purpose of generating power supplied to the pulp and paper mill now owned by the St. Croix Paper Co. at Woodland, in the State of Maine, a few miles farther down said stream.

(A) The St. Croix River is a boundary water within the meaning of the treaty of January 11, 1900, between Great Britain and the United States of America. The effect of the said dam and power canal as constructed and maintained is to divert the waters of the

said St. Croix River on the Canadian side and cause them to flow through the State of Maine, thereby altering the levels on the United States side of the international boundary; also to divert the waters of the said river on the United States side of the said boundary, thereby altering the levels of the waters of the said river on the Canadian side of the said boundary.

(7) The applicants are owners of the riparian lands on both sides of the said river which are affected by the change of the levels of the said river.

The companies having applied to the commission for its approval of the said dam and its maintenance and operation and of the obstruction, diversion, and use of said waters, and it appearing to the commission that such approval should be granted;

Therefore, it is hereby ordered that the maintenance and operation of the dam aforesaid and the diversion and use of the waters of said river for the purpose in paragraph (7) hereinbefore contained, be, and the same are hereby, approved upon and subject to the following conditions:

1. That the applicants have obtained, or shall hereafter obtain, from the United States and the Dominion of Canada within their respective jurisdictions authority for the maintenance of the said dam as constructed and the obstruction, diversion, and use of the waters of the St. Croix River at Grand Falls, in the State of Maine and the Province of New Brunswick, for the said purpose.

2. In case the waters so diverted cease to be used for the purpose mentioned in paragraph (7), this order of approval shall thereupon cease to be operative unless the commission, upon the application of the United States or the Dominion of Canada, continue it on such terms and conditions as the commission may prescribe.

3. All the sluices, log sluices, flashboards, bypasses, power plant, and storage reservoirs shall be so operated as to prevent the level of the water at the dam rising above 202 (mean sea-level datum). For this purpose the operation of all the said works, canals, head-gates, sluices, and log sluices of all kinds, dams, and bypasses shall be under the direct control of the board hereinafter designated.

4. All the sluices, log sluices, power plants, and storage dams shall be so operated as to pass continuously the minimum discharge of the river plus such other quantity as the board of control shall determine is available.

5. To enable the board to determine the quantity of water that should be passed downstream, two gauges for registering the precipitation shall be established by the two Governments at suitable stations in the valley of the said river.

6. An officer to be appointed by the Governor General in council of Canada and one to be appointed by the Secretary of War of the United States shall form a board whose duty it shall be to formulate rules under which the sluice gates, log sluices, power works, and storage dams are to be operated to prevent as nearly as possible a higher level than 202 (mean sea-level datum) and to secure to the users of water below Grand Falls the flow of water to which they are entitled. It shall be the further duty of this board to see that any rules or regulations now or hereafter made by proper authority are duly obeyed.

7. The power company at Grand Falls shall keep continuous records, satisfactory to the board, which will show the quantity of water used by it, and shall furnish to the board, when required, full information from such records.

8. The board will determine at all times the amount of water to be passed to the users of water below, and the owners of the said dam and power canal for the time being shall supply the necessary labor for the operation of the various gates.

9. The cost of maintaining all parts of the dam and all sluices and log sluices shall be borne by the owners thereof, and this work of maintenance shall be done in a manner satisfactory to both Governments.

10. In the event of a disagreement between the members of said board, in respect to anything required of said board herein, or in respect to the duties or powers of said board, or as to the exercise of such duties or powers, the question at issue shall, upon the application of either Government, be referred to this commission for its decision.

Dated at New York, N. Y., November 9, 1915.

O. GARDNER.  
C. A. MAGRATH.  
JAMES A. TAWNEY.  
H. A. POWELL.  
R. B. GLENN.  
P. B. MIGNAULT.