

Title: Exchange of letters constituting an agreement between France and Spain amending the arrangement of 12 July 1958 relating to Lake Lanoux.

Parties: France, Spain

Basin: Lake Lanoux, Carol, Font-Vive

Date: 1/27/1970

[TRANSLATION - TRADUCTION]

EXCHANGE OF LETTERS CONSTITUTING AN AGREEMENT¹ BETWEEN FRANCE AND SPAIN AMENDING THE ARRANGEMENT OF 12 JULY 1958² RELATING TO LAKE LANOUX

I

MINISTRY OF FOREIGN AFFAIRS

Paris, 27

January 1970

Sir,

At its meeting of 28 September 1965, the Joint Franco-Spanish Supervisory Commission for the development of Lake Lanoux proposed that the text of the Arrangement referred to in article 1 of the Franco-Spanish Agreement of 12 July 1958⁵ relating, to Lake Lanoux, and annexed to that Agreement, should be amended.

The Commission proposes the following new text for the Arrangement:

Water diverted from the Lanoux natural catchment basin to the Hospitalet falls is drawn off from the flow of the Carol. The flow thus diverted shall be returned to the Carol through a gallery approximately five kilometres in length, the "Ariege-Carol gallery"; water from the Ariege shall be directed through an intake situated at elevation 1575 metres into the said gallery, which shall be of sufficient capacity to ensure a flow of five cubic metres per second. Such water shall be returned to the Carol before the border, downstream of the village of Porte.

1. Principles governing flow determination

The volume of water diverted from the Carol at Lake Lanoux and the volume returned through the Ariege-Carol gallery shall be metered continuously by means of a series of measuring devices. Such devices shall be installed in pairs, with the aim of enhancing the accuracy of the measurements and in order to guard against any failure of one of the instruments.

1. Diverted flow

This comprises water from the Lanoux catchment basin and from the streams of Fourats, la Porteille and Courtal-Rousso, which are tributaries of the Font-Vive.

If:

A = gravity flow from the Carol,

P = pumped flow from tributaries of the Ariege, and
T = turbine flow,

these being the total quantities for any given measurement period, and

V_r = the corresponding variation in reservoir storage,

It follows that $V_r = A + P - T$ and $A = V_r - P + T$.

For the purpose of determining quantities P and T, two Venturi meters - one for each direction of stream flow - shall be installed in the Lanoux penstock, on either side of the head gates. The measuring instruments of the said meters shall be activated or de-activated, according to the direction of the current, by a special automatic detector. They shall be equipped with a totalizer for turbine flow or pumped flow.

V_r shall be deduced from the curve showing the storage capacity in terms of the stage of the Lake, the stage being measured by a high-precision pressure gauge.

During the period 15 June- 15 September, flow shall be increased by 70,000 cubic metres per month in order to take account of evaporation from the enlarged surface area of the Lake.

2. *Return delivery*

Return delivery shall normally be effected through the Ariege-Carol gallery; the intake has been so designed as to enable flow to be regulated to within five cubic metres per second. If necessary, the requisite return flow may be supplied directly through the Font-Vive gallery, whatever the water level in the reservoir, by means of a hollow-jet valve situated near the Lanoux distribution room.

A Venturi flume shall be installed at the downstream mouth of each of the said galleries. Flow shall be measured and totalized by a precision instrument.

A measuring device shall also be installed at the upstream mouth of the Ariege-Carol gallery for the purpose of flow regulation.

II. *Principles of operation*

It is hereby agreed that diverted flow and return flow shall be equalized each year within the annual accounting periods stipulated below:

- In the case of diverted flow, the water year shall be established as the following period: 1 September of a given year to 31 August of the following year.

- In the case of return flow, the water year shall be the period 1 May - 30 April following the start of the water year for diverted flow.

Where less than 20 million cubic metres of water are diverted from Lake Lanoux in any given water year, the return flow to be effected during the corresponding water year shall be not less than 20 million cubic metres.

Technical procedures for implementation

Return delivery shall be effected through the Ariege-Carol gallery from the beginning of May onwards. It shall be continued until the diverted flow is fully compensated. The rate of flow through the gallery may be reduced, except in July and August, in order to limit the extent of any temporary surplus of return flow over diverted flow.

Where, in exceptional circumstances, the requisite compensation has not been made by 30 September:

(a) In the case of a shortfall, return delivery shall be maintained during the months of October, November, March and April, with a break during the months of December, January and February. However, where the minimum quantity of 20 million cubic metres has still not been restored, return delivery shall be maintained without interruption until that figure is reached.

(b) In the case of a surplus, compensation shall be made during the following year, the excess quantities delivered during the previous year being deducted from the return flow due to be effected during the current year.

In such a case, return delivery shall not commence until such time as the flow which would normally have been drawn off from the Ariege during the intervening period equals the amount of the surplus.

In these circumstances as well, a minimum return flow of 20 million cubic metres shall be assured.

Unforeseen difficulties

Acting at the request of either delegation, the Joint Supervisory Commission shall settle any difficulties of implementation which may arise, taking into account the above principles and methods, on which return delivery arrangements must be based. To this end, the situation shall be reviewed at one of the annual meetings.

The French Government for its part approves the Commission's proposal.

If this proposal also meets with the approval of the Spanish Government, I have the honour to suggest that this letter and your reply thereto should constitute a formal agreement between our two Governments on the new text for the Arrangement.

I further suggest that this text should enter into force on the date of the exchange of this letter and your reply thereto.

Accept, Sir, etc.

AUGUSTIN JORDAN

Minister Plenipotentiary
Department of Economic and Financial Affairs
General Affairs

His Excellency Mr. Cortina y Mauri
Ambassador of Spain

Paris

II

EMBASSY OF SPAIN IN PARIS

Paris, 27

January 1970

Sir,

I have the honour to acknowledge receipt of your letter of today's date, reading as follows:

[See letter 1]

I have the honour to inform you that the provisions of the above letter have the agreement of the Spanish Government.

Accept, Sir, etc.

[Signed]
PEDRO

CORTINA

Mr. Augustin Jordan
Minister Plenipotentiary
Ministry of Foreign Affairs
Paris

¹Came into force on 27 January 1970 by the exchange of the said letters.