# CONVENTION <u>1/</u> BETWEEN THE GOVERNMENT OF THE SOCIALIST FEDERAL REPUBLIC OF YUGOSLAVIA AND THE GOVERNMENT OF THE ROMANIAN PEOPLE'S REPUBLIC CONCERNING THE OPERATION OT THE IRON GATES WATER POWER AND NAVIGATION SYSTEM ON THE RIVER DANUBE, SIGNED AT BELGRADE ON 30 NOVEMBER 1963 <u>2/</u>

The Government of the Socialist Federal Republic of Yuaoslavia and the Government of the Romanian People's Republic, having regard to the provisions of the Agreement concerning the construction and operation of the Iron Gates Water Power and Navigation System on the River Danube, signed on 30 November 1963, 3/ have agreed as follows:

### Article I

The Contracting Parties undertake to arrange for the operation and maintenance, under the conditions laid down in this Convention, of the Iron Gates Water Power and Navigation System on the River Danube (hereinafter referred to as "the Iron Gates System") constructed in accordance with the provisions of the Agreement of 30 November 1963 concerning the construction and operation of the Iron Gates Water Power and Navigation System on the River Danube. The structures and works which form the Iron Gates System and whose operation and maintenance are the subject of this Convention shall be enumerated in the final inventory contained in the record to be drawn up by the Mixed Commission in accordance with the provisions of article 15, paragraph 6, of the Agreement.

#### Article 2

1. Each Party shall arrange for the management, operation and maintenance of those structures and works which belong to it in accordance with article 9, paragraph 4, of the Agreement.

2. Before the Iron Gates System comes into operation, each Contracting Party shall designate a water power enterprise (hereinafter referred to, in the case of the Yucoslav Party, as "HE Djerdap" and, in the case of the Romanian Party, as "HC Portile de Fier") to manage, operate and maintain such of the following structures and works of the System as are situated in its territory:

- electric power plants;
- dam;
- fishways;
- approaches to the main structure;
- road on the dam;
- switching stations at the electric power plants;
- electric link between the switching stations at the electric power plants;
- buildings, workshops and indoor and outdoor storage facilities erected to meet the requirements of the electric power plants;

- permanent housing erected to meet the requirements of the electric power plants;
- the regulated bed of the Danube, within the System, upstream and downstream of the dam;
- structures and installations to protect the riparian lands;
- structures and installations to protect the storage lake from silting by torrents.
- 3. The River Administration of the Iron Gates (in abbreviated form, RAIG) shall manage, operate and maintain the following structures and works of the Iron Gates System:
- locks and outer basins;
- buildings, workshops and indoor and outdoor storage facilities erected to meet the requirements of RAIG;
- permanent housing erected to meet the requirements of RAIG;
- boats for ice-breaking and maintenance of structures;
- the regulated navigable channel upstream and downstream of the dam in the Iron Gates sector, together with the moorings for vessels and the signalling installations.

4. In accordance with the provisions of article 18, paragraph 4, of the Agreement, HE Djerdap, HC Portile de Fier and RAIG shall bear the entire cost of managing, operating and maintaining those structures and works of the Iron Gates System which are entrusted to them in accordance with paragraphs 2 and 3 of this article, taking into account also the provisions of articles 11 and 12 of this Convention.

5. HE Djerdap shall constitute an integral part of the Yugoslav electric power system and HC Portile de Fier an integral part of the Romanian electric power system. As such, these two water power enterprises shall operate independently, under the conditions laid down in the Agreement and in this Convention.

6. The Contracting Parties undertake to arrange for co-ordination of the operation and maintenance of the structures and works of the Iron Gates System to the extent required for the efficient operation of the entire System, taking into account the fact that the said System constitutes a single unit from the standpoint of water power and navigation, as provided by article 18, paragraph 1, and article 10, paragraphs 1, 2, 7 and 8, of the Agreement. The method of arranging for co-ordination of the operation and maintenance of the structures and works of the Iron Gates System shall be governed by this Convention.

## Article 3

1. In order to ensure the efficient operation of the Iron Gates System as a water power and navigation unit, the Mixed Commission shall establish, in accordance with article 13, paragraph 4, of the Agreement, a Joint Co-ordination Authority composed of representatives to be appointed by RAIG,

HE Djerdap and HC Portile de Fier. The said authority shall co-ordinate the operation of the power system with that of the structures and works used in navigation within the Iron Gates System.

2. In order to ensure permanent and effective co-ordination of the activities of HE Djerdap and HC Portile de Fier in all problems of operation and maintenance which require the adoption of coordinated measures and decisions, the Mixed Commission shall establish, in accordance with article 13, paragraph 5, of the Agreement a Joint Energy Control Service composed of representatives to be appointed by the aforementioned two organizations.

# Article 4

1. The tasks of the Joint Co-ordination Authority provided for in article 3, paragraph 1, of this Convention shall be:

(a) to determine the minimum and maximum level of headwater and tailwater at the dam, according to the natural discharge of the Danube;

(b) to determine the magnitude of the regulated flow downstream of the dam according to the natural discharge of the Danube, taking into account the requirements of power generation, navigation and fishing;

(c) to determine the method of breaking and clearing ice in the storage lake and of apportioning the cost involved between RAIG and the two water power enterprises;

(d) to determine the method of draining off floodwater;

- (e) to determine the method of saving water in the operation of the locks;
- (f) to adopt urgent measures in case of *force majeure* and exceptional circumstances (collapse of a dike, partial destruction of structures, natural disaster, etc.);
- (g) to draw up a plan for joint action by RAIG, HE Djerdap and HC Portile de Fier to safeguard the interests of the fishing industry;
- (h) to co-ordinate and control the execution of plans for the maintenance of structures and works which affect the operation of the Iron Gates System as a water power and navigation

unit;

(i) to draw up and to control the execution of the annual plans for dredging within the lron Gates System;

(j) to submit to the Mixed Commission annual reports on its activities

(k) to perform such other tasks as the Mixed Commission may assign to it.

2. The Joint Co-ordination Authority shall perform the tasks prescribed by paragraph 1 of this article in accordance with rules to be laid down by the Mixed Commission.

1. The tasks of the Joint Energy Control Service provided for in article 3, paragraph 2, of this Convention shall be,:

(a) to co-ordinate the operating programmes and output of the electric power plants with a view to the most efficient utilization of the available water potential;

(b) to co-ordinate the plans for the maintenance of power structures, works and installations;

(c) to effect the daily distribution of the available water power potential;

(d) to equalize the potential utilized;

(e) to control the operation of the weirs and outlets at the base of the dam;

(f) to work out hydrological forecasts and plans of available power;

(g) to read and to check the accuracy of the hydrometric instruments in the storage lake and in the tail-bay;

(h) to determine the consumption of electric energy for the operation of the pumping stations, under the conditions laid down in article 12 of this Convention;

(i) to perform such other tasks as the Mixed Commission may assign to it.

2. HE Djerdap and HC Portile de Fier shall work out rules for the activities of the Joint Energy Control Service, which shall be approved by the Mixed Commission. The said rules shall govern, in detail, the conditions for the maintenance of structures, works and installations; the quantitative determination of the water power potential utilized on the basis of the readings shown and recorded by the measuring instruments and meters; the volume of daily use of the storage lake according to the natural discharge of the Danube; the special technical conditions for the operation and maintenance of installations; the special powers of the Joint Energy Control Service in exceptional and urgent cases; and the organization of the appropriate statistical service.

1. The operation of the Iron Gates System shall be so organized as to ensure compliance with the scheme of operation provided for in article 4, paragraph 1, of the Agreement.

2. The utilization in equal shares of the water power potential harnessed by the Iron Gates System, for which provision is made in article 8 of the Agreement, shall be effected in the following manner:

(a) the utilization in equal shares of the available water power potential shall be effected daily; the magnitude of any discrepancy in distribution in the course of one day shall be governed by the rules of the Joint Energy Control Service provided for in article 5, paragraph 2, of this Convention; any differences in the utilization of the water power potential shall be equalized within not more than seven days from the date on which they arise;

(b) if one of the water power enterprises is unable for any reason to utilize its full share of the potential, it may relinquish for utilization by the other enterprise, if the latter so desires, that portion which it cannot utilize; the quantity of power so used shall be returned within such period and under such conditions as are agreed upon by the two enterprises;

(c) the measurement of the water power potential utilized shall be effected by measuring, at the terminals of the generators of each unit, the electric power produced; each enterprise shall have at its disposal measuring instruments for indicating and recording power and meters for each unit of both electric power plants; all such instruments and the metering transformers used in conjunction with them must possess the same degree of accuracy and precision, which shall be jointly determined;

(d) in calculating the potential utilized, the energy produced by units whose power factor, in any part of the zone of operation, falls short by more than 0.5 per cent of the power factor of the unit with the smallest losses shall be multiplied by a correction factor to be determined by the rules of the Joint Energy Control Service provided for in article 5, paragraph 2, of this Convention;

(e) under natural flow conditions in the Danube, under which the use of the full installed capacity is not permitted by the provisions of this Convention and by the rules, each enterprise may, in the event of exceptionally severe damage to its own power system, use the full capacity of the power plant without the prior approval of the Joint Energy Control Service for a period not exceeding one hour; an enterprise which, for such a reason, has exceeded the joint programme of operation shall be bound to explain to the Joint Energy Control Service, within twenty-four hours at the latest, its reasons for exceeding the joint programme of operation; the difference in energy shall be equalized within seven days of the occurrence.

### Article 7

The electric link between the switching stations at the two electric power plants shall as a rule be disconnected. The said link shall be connected only in the event of an exchange of electric power between the two water power enterprises.

1. Pursuant to the provisions of article 10, para-raph 2, of the Agreement, each Contracting Party shall ensure that those structures and works of the Iron Gates System which belong to it and which are essential to the operation of the System as a unit are continuously maintained in accordance with the most modern practice. The technical conditions for the maintenance of the said structures and works shall be determined by the rules provided for in article 4, paragraph 2, and article 5, paragraph 2, of this Convention.

2. For the purposes of article 10, paragraph 2, of the Agreement and of paragraph 1 of this article, the expression "maintenance of structures and works" shall be understood to refer to both current maintenance and major repairs.

3. In the event that, through failure to comply with the technical conditions for maintenance laid down by the rules, one of the enterprises causes a loss of water or a reduction in head below the permitted limits, it shall return to the other enterprise the electric power which the latter has lost by reason of that occurrence.

# Article 9

1. When the Iron Gates System comes into full operation, the Mixed Commission shall draw up a list of the structures and works which fall into the categry defined in article 10, paragraph 5, of the Agreement and shall fix the standard working life of each of the said structures and works. On the expiry of the standard working life of each individual structure or item of work, the Mixed Commission shall determine whether the said structure or item of work needs to be replaced or rebuilt, shall fix a time-limit for the completion of its replacement or reconstruction, shall determine the cost thereof and shall prepare a temporary scheme for the operation of the Iron Gates System while replacement or reconstruction is in progress. The cost of any replacement or reconstruction which may be necessary before the expiry of a structure's standard working life shall be borne by the Party to which the said structure belongs. In such cases, the Mixed Commission shall fix a time-limit for the construction and prepare a temporary scheme for the operation of shall be borne by the Party to which the said structure belongs. In such cases, the Mixed Commission shall fix a time-limit for the completion of replacement or reconstruction and prepare a temporary scheme for the operation of the Iron Gates System while replacement or reconstruction and prepare a temporary scheme for the operation of the Iron Gates System while replacement or reconstruction is in progress.

2. When the Iron Gates System comes into full operation, the Mixed Commission shall also draw up a list of the structures and works which fall into the category defined in article 20, paragraph 2, of the Agreement. In the event that any of the said structures and works is damaged or destroyed by reason of *force majeure*, the Mixed Commission shall prescribe the method of repair or reconstruction, fix a time-limit for the completion of repairs or reconstruction, determine the cost thereof and prepare a temporary scheme for the operation of the Iron Gates System while repair or reconstruction is in proress.

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2. With a view to the efficient operation of the structures and works intended for navigation, RAIG shall establish a Traffic Control Service with the following tasks:

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4. RAIG shall arrange for ice-breaking in the storage lake.

# Article II

Dredging operations in the Iron Gates System storage lake shall be carried out in the following manner:

(a) the annual volume of dredging operations to be carried out in the storage lake from the dam to the mouth of the Morava and, separately, upstream of the mouth of the Morava to a point to be specified in the preliminary design shall be determined by the Joint Co-ordination Authority before the end of the third quarter of the previous year;

(b) the annual volume of dredging operations to be carried out upstream of the mouth of the Morava as a result of the creation of the Iron Gates System shall be arrived at by subtracting from the total annual dredging operations required in this sector the figure of 20 000m<sup>3</sup>, representing the operations required under natural flow conditions in the Danube;

(c) the Joint Co-ordination Authority shall determine separately the volume of dredging

operations required for the removal of silt from tributaries of the Danube originating in Romanian territory which flow into the storage lake;

(d) the Romanian Party shall arrange for the execution, at its expense, of a volume of dredging operations representing half the volume specified in subparagraph (b), plus the entire volume specified in subparagraph (c) of this article; these dredging operations shall be carried out in the sector of the Danube between the dam and the mouth of the Nera, and, in so far as this sector is not sufficient to cover the Romanian Party's obligations, dredging operations shall also be carried out by the Romanian Party upstream of the mouth of the Nera;

(e) RAIG shall arranged for the dredging of the navigable channel in the Iron Gates sector within the limits of the costs of operation and maintenance which fall to its share in accordance with the provisions of this Convention;

(f) the Yugoslav Party shall arrange for the execution, at its expense, of the remaining dredging operations required in the Iron Gates System storage lake.

1. The electric energy consumed at the pumping stations in removing ground water and surface water whose presence is due to the existence of the Iron Gates System shall be recorded by watt-hour meters.

2. The annual consumption of the electric energy referred to in paragraph 1 of this article shall be arrived at by deducting from the total annual quantity of electric energy consumed that quantity of electric energy which is required for the operation of the pumping stations under natural flow conditions in the Danube. The annual quantities, thus arrived at, of electric energy consumed, multiplied by a factor of 1.5, shall be treated in equal shares as part of the internal consumption of the two electric power plants of the Iron Gates System.

3. For purposes of the application of this article, the Joint Energy Control Service shall determine, on the basis of the data in the preliminary design and of the rules provided for in article 5, paragraph 2, of this Convention, the quantity of energy consumed annually by the pumping stations under natural flow conditions in the Danube.

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3/ No. 101.

<sup>1/</sup> Came into force on 1 6 July 1964,

<sup>2/</sup> United Nations, Treaty Series, vol. 513, p. 126.