

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

Minute No. 297

**May 31, 1997
Ciudad Juárez, Chihuahua**

**OPERATIONS AND MAINTENANCE PROGRAM
AND DISTRIBUTION OF ITS COSTS FOR THE INTERNATIONAL PROJECT
TO IMPROVE THE QUALITY OF THE WATERS OF THE RIO GRANDE
AT LAREDO, TEXAS-NUEVO LAREDO, TAMAULIPAS**

The Commission met in the offices of the Mexican Section in Ciudad Juárez, Chihuahua, at 10:00 a.m. on May 31, 1997 to recommend to the two Governments an operations and maintenance program and distribution of its costs for the international project to improve the quality of the waters of the Rio Grande at Laredo, Texas-Nuevo Laredo, Tamaulipas. The Commissioners pointed out that the Governments of the United States and Mexico in Resolution No. 4 of Commission Minute No.279, entitled "Joint Measures to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas-Nuevo Laredo, Tamaulipas", signed August 28, 1989, agreed to jointly fund the construction, operation and maintenance of the six elements of this international project. Further, they observed that the Commission in Resolutions Nos. 8 and 9 of Minute No. 279 must reach an agreement on the division of these costs and recommend to the two Governments a specific operations and maintenance program.

The Commissioners reviewed, and found satisfactory, the "Joint Report of the Principal Engineers Concerning Recommendations for the Operation and Maintenance of the International Project to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas-Nuevo Laredo, Tamaulipas Established in Minute No. 279," signed by United States Section Principal Engineer Jose S. Valdez and Mexican Section Principal Engineer Luis Antonio Rascón Mendoza on November 9, 1995. The Commissioners noted that the installation and construction of the six principal elements of the international project, a) Riverside Collector, b) Coyotes I Collector, c) Sewage Collection Expansion, d) Sewage Collection Rehabilitation, e) Pumping Plant and f) Treatment Plant, were essentially completed in July 1996. The Commissioners noted that an operations and maintenance manual is being completed by Mexico that is consistent with the referenced criteria. Such manual would be subject to upgrading as conditions warrant.

The Commissioners referred to the "Joint Report of the Principal Engineers Recommending the Distribution of Costs Between the Two Countries for the Operation and Maintenance of the Nuevo Laredo International Project Authorized in IBWC Minute No. 279", signed by United States Section Principal Engineer Carlos Marin and Mexican Section Principal Engineer Luis Antonio Rascón Mendoza on May 30, 1997. The Commissioners noted that the Principal Engineers took into account the costs for the six principal elements of the international project that should correspond to the United States considering that for Mexico the discharge standards for wastewaters to the Rio Grande from Nuevo Laredo are different than those in the United States, such that the discharge from the Nuevo Laredo treatment plant should meet the international standards agreed to in Commission Minute No. 279, provided that the control measures necessary to meet such standards are jointly financed by the governments of the United States and Mexico. Further, the Commissioners noted that the Principal Engineers recommended a cost to the United States that corresponds

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

...2

to the difference between the cost to Mexico of operation and maintenance for Mexico to meet its national effluent standards established for Nuevo Laredo, Tamaulipas and the costs of operation necessary to meet the effluent standards used for the international plant. The Commissioners also considered the Mexican Government's objective of strengthening the operating organizations. As such the operating organization would need stronger support in the earlier years of the operation and maintenance while it undergoes capacity building.

The Commissioners reviewed the procedures for distribution of costs between the two countries recommended by the Principal Engineers in the Joint Report of May 30, 1997, and observed that the Principal Engineers propose that the United States cover its participation in the estimated costs of operating and maintaining the six principal elements of the Nuevo Laredo International Sanitation Project through 2005 in distributed United States contribution based on actual costs of \$350,000 in 1996 and \$700,000 in 1997. They also observed the position of the United States that based on an estimated total cost range of \$15.0 million to \$27.49 million for a 10 year period, the United States is not prepared to have its participation exceed 33.3 percent of the total actual costs in that period. Such distributed United States participation would be subject to review at the end of each year against the actual costs and the information provided to the IBWC by the Mexican Section regarding the progress made in achieving the Mexican Government's objective to strengthen the operating organization in Nuevo Laredo, Tamaulipas. Further, the Commissioners noted the recommendation that Mexico, through the Nuevo Laredo operating agency, would cover the difference through 2005 between the actual costs of the international sanitation project and the United States contribution. In this respect, the Mexican Section, supported by documentation provided by the operating agency, will arrive with the United States Section at statements of actual costs indicating those costs to be covered with the distributed United States funds and those paid by Mexico over and above the United States contribution.

The Commissioners also considered the recommendation that at the end of this period in 2005, the Commission would review the distribution of costs agreement, and make recommendations. This would consider the difference in Mexico's discharge standards applicable for the Rio Grande in Nuevo Laredo and those standards established in Minute No. 279 and against the capacity of the operating organization to totally cover the costs of operating the plant. Finally, the Commissioners noted, and found satisfactory, the specific procedures for monthly charges and payments recommended in the Joint Report.

Based on the above considerations, the Commissioners adopted the following resolutions for the approval of the two Governments:

1. The "Joint Report of the Principal Engineers "Concerning Recommendations for the Operation and Maintenance of the International Project to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas-Nuevo Laredo, Tamaulipas Established in Minute No. 279," signed by United States Principal Engineer Jose S. Valdez and Mexican Section Principal Engineer Luis Antonio Rascón Mendoza on November 9, 1995 is adopted, and forms an integral part of this Minute, as the specific operations and maintenance program required by Resolution No. 9 of Commission Minute No. 279, entitled "Joint Measures To Improve the Quality of the Waters of the Rio Grande at Laredo, Texas-Nuevo Laredo, Tamaulipas," signed August 28, 1989, with the understanding that Mexico will ensure that the program is incorporated in an operations and maintenance manual that would be subject to upgrading as conditions warrant.

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

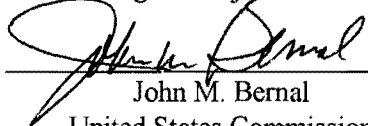
2. The "Joint Report of the Principal Engineers Recommending the Distribution of Costs Between the Two Countries for the Operation and Maintenance of the Nuevo Laredo International Project Authorized in IBWC Minute No. 279," signed by United States Section Principal Engineer Carlos Marin and Mexican Section Principal Engineer Luis Antonio Rascón Mendoza on May 30, 1997 is adopted, and forms an integral part of this Minute, as the agreement for distribution between the two countries of the operation and maintenance costs of the six principal elements of the jointly financed the international sanitation project for the city of Nuevo Laredo, Tamaulipas, required by Resolution No. 8 of Commission Minute No.279, entitled "Joint Measures to improve the quality of the waters of the Rio Grande at Laredo, Texas-Nuevo Laredo, Tamaulipas," signed August 28, 1989.

3. The administration by the Mexican Section of the United States funds will include the involvement of Commission Engineers in: a) development of contracts necessary for extraordinary maintenance and for capital improvements; b) supervision of operations insofar as the operation and maintenance program in the November 9, 1995 Joint Report, including site visits that both Sections may consider necessary; c) the application of United States funds in the operation and maintenance of the six elements agreed in IBWC Minute No. 279; and d) the annual review of progress made by the operating organization in achieving the Mexican Government's goal of strengthening that organization's capacity.


4. All activities carried out pursuant to this Minute will be subject to the availability of appropriated funds, resources and personnel and applicable laws and regulations of each country.

5. This Minute shall enter into force when the Government of the United States of America and the Government of the United Mexican States have each provided written notification through the IBWC of its approval.

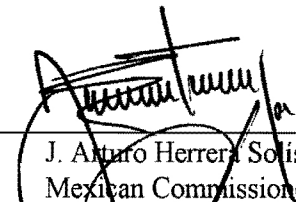
The meeting was adjourned.



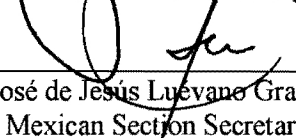
John M. Bernal
United States Commissioner



Manuel R. Ybarra
United States Section Secretary



J. Arturo Herrera Solis
Mexican Commissioner



José de Jesús Luevano Grano
Mexican Section Secretary

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

**Ciudad Juárez, Chih.
May 30, 1997**

**JOINT REPORT OF THE PRINCIPAL ENGINEERS
RECOMMENDING THE DISTRIBUTION OF COSTS BETWEEN THE TWO
COUNTRIES FOR THE OPERATION AND MAINTENANCE OF THE NUEVO
LAREDO INTERNATIONAL PROJECT AUTHORIZED IN IBWC MINUTE NO 279.**

**To the Honorable Commissioners
International Boundary and Water Commission
United States and Mexico
El Paso, Texas and Ciudad Juárez, Chihuahua**

Sirs:

In accordance with your instructions, we respectfully submit for your consideration this Joint Report recommending distribution between the two countries of the operation and maintenance costs of the principal elements of the jointly financed international sanitation project for the city of Nuevo Laredo, Tam., authorized in Commission Minute No. 279, entitled, "Joint Measures to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas / Nuevo Laredo, Tamaulipas," dated August 28, 1989.

BACKGROUND

We considered Resolution No. 4 of Minute No. 279 which establishes that the Governments of the United States and Mexico will participate in the financing of the construction, operation and maintenance of the six principal elements that make up the international sanitation project. We took into account Resolution No. 8 which stipulates that the Commission reach an agreement on the division of these costs for the costs of operation and maintenance of the principal elements of the jointly financed sanitation project..

We also took into consideration that the Commission adopted the terms in the Joint Report of the Principal Engineers that forms a part of Minute No. 279. That report establishes that for Mexico the standards for wastewaters discharged to the Rio Grande from Nuevo Laredo are different than those in the United States, such that the standards stipulated in Minute No. 279 would be applied to the Nuevo Laredo treatment plant discharges, provided that the control measures necessary to meet such standards are jointly financed by the governments of the United States and Mexico. Also, we considered that the referenced Joint Report establishes that the cost to the United States should correspond to the difference between the cost to Mexico of operation and maintenance for Mexico to meet its national effluent standards established for Nuevo Laredo, Tam. and the costs of operation and maintenance necessary to meet the standards agreed to for the international plant in the referenced Minute.

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

... 2

Finally, we considered the information provided by the Mexican Section's Principal Engineer that the policy of the Government of Mexico is one in which municipalities will exercise greater responsibilities in financing and carrying out the operation and maintenance of drinking water and wastewater systems. As such, the Government of Mexico seeks to improve the capacity of local sanitation systems operating organizations such that they will be self-sufficient in their operation and maintenance of such systems. Further, we considered that the discharge standards of the two countries applicable to the Rio Grande in the area of Laredo - Nuevo Laredo may in the future tend to be similar. Thus, we consider it advisable to strengthen the Nuevo Laredo, Tam., operating organization so that this organization may cover the costs that this effort implies. With this in mind, a practical approach for a distribution of costs between the United States and Mexico, would be that of distributing the cost participation of the United States in a greater proportionate amount in the first few years and a lesser amount in the second part of a 10 year period. Further, at the end of that period, we recommend that the Commission review the cost distribution and make recommendations regarding the difference between the discharges standards applicable in Mexico for the Rio Grande in Nuevo Laredo and the standards established in Minute No. 279. Further the Commission would review the cost distribution against the capacity of the Operating Organization to completely cover the cost of operating the plant.

DISTRIBUTION OF COSTS

We also observed that the six principal elements of the international sanitation project, consisting of a) Riverside Collector, b) Coyotes I Collector, c) Sewage Collection Expansion, d) Sewage Collection Rehabilitation, e) Pumping Plant and f) Sewage Treatment Plant, were essentially completed in July 1996. We also observed that costs for certain pre-operations and maintenance activities were covered since 1995. We reviewed the summary of costs, in the enclosed Table I, corresponding to the actual costs to the Operating Organization from July through December 1996 for the treatment and pumping plants and observed that the total was equivalent to \$687,694 United States currency.

We also observed that for the operation and maintenance of Sewage Collection Expansion and Sewage Collection Rehabilitation principal elements, such maintenance would be performed under Mexico's standards such that Mexico would cover the total cost. However, we observed that there was a 25 per cent increase in the construction costs of the Ribereno and Coyotes Collectors consistent with control measures necessary to meet the discharge standards in Minute No.279. Correspondingly, the United States could cover 25 per cent of the operation and maintenance costs of such collectors. Also, we observed that certain additional features were added to the pumping station element which also increased the construction costs of the pumping station and the treatment plant elements in order to include control measures necessary to meet the discharge standards in Minute No. 279. Thus the United States could cover an estimated 25 per cent of the costs of the pumping station. However, the United States cost contribution to the total operation and maintenance of all six principal elements should not exceed 33.3 percent. Based on that experience we estimated that the cost for the six elements for 1997 would be in the range of \$1.12 to \$1.99 million, United States currency.

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

... 3

We reviewed the principles and costs referenced above using the basic items shown in the enclosed Table I and, based on these, made a projection of a range of the estimated total costs from 1998 through 2005, taking into account increased sewage generation up to the plant capacity, assuming simple annual increase of 10 per cent through 2005 over the estimated costs for 1997 in the range of \$1.12 to \$1.99 million and arrived at an estimated total cost range of from \$15 million to \$27.49 million for a 10 year period through 2005. Accordingly, the United States share of the estimated total cost using the lower estimate of the range is estimated at \$5 million through 2005.

Further, we took into account the Mexican Government's objective to strengthen operating organizations and concluded that the operating organization would need support in the earlier years of the operation and maintenance while it undergoes capacity building. Accordingly we propose a distribution of the United States contribution, based on actual costs, of \$350,000 for 1996 and \$700,000 for 1997 and based on an estimated total cost range of from \$15 million to \$27.49 million for a 10 year period through 2005, as well as the information of the United States Principal Engineer that his country is not prepared to provide more than 33.3 per cent of the total actual costs of the six principal elements in that period. Such United States participation would be subject to review at the end of each year against that actual cost incurred, including those that may be incurred for contingencies, and the information provided to the IBWC by the Mexican Section regarding the progress made in achieving the Mexican Government's objective to strengthen the operating organization in Nuevo Laredo, Tam. Based on this review, beginning in 1998, the estimated United States participation will be determined in January of this and subsequent years.

IMPLEMENTATION PROCEDURES

We consider that the following procedures be used in implementing the above proposed cost distribution:

1. That the United States cover its assigned participation in the estimated costs of operating and maintaining the six principal elements of the Nuevo Laredo International Sanitation Project in the amounts of \$350,000 in 1996 and \$700,000 in 1997.
2. That for the period from 1998 through 2005, the United States cover its assigned participation in the estimated costs of operating and maintaining the six principal elements of the Nuevo Laredo International Sanitation Plant subject to review, for appropriate adjustments, at the end of each year against the actual costs incurred, and the information provided to the IBWC by the Mexican Section regarding the progress made in achieving the Mexican Government's objective to strengthen the operating organization in Nuevo Laredo, Tam. with the understandings in Points 3-6 below.
3. That Mexico, through the Nuevo Laredo operating agency, cover the difference between the actual costs of the international sanitation project through 2005 plant and the corresponding United States contribution, providing to the United States,

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**


... 4

statements of actual costs for the basic items listed on Table I indicating those costs to be covered with the United States funds and those paid by Mexico over and above the United States contribution, making the supporting documentation available to the IBWC.

4. That upon the approval of this Joint Report, the United States Section of the Commission provide to the Mexican Section of the Commission, the initial contribution of \$350,000 corresponding to 1996.
5. That subsequently , the operating organization present to the Mexican Section the necessary statement(s) of the international project's operation and maintenance costs as they are incurred each month, for presentation to the IBWC during the first 10 days of the following month in accordance with Point 3, above.
6. That the United States Section make payment through the Mexican Section for the actual operation and maintenance costs presented in Point 5) above, within the next days after these are presented through the Mexican Section, in an amount that will not exceed a prorated monthly payment of the annual corresponding United States contribution in effect for that year, using the "buy" pesos for dollars rate of exchange in effect at the closing of the last working day of the month in which the costs were incurred.

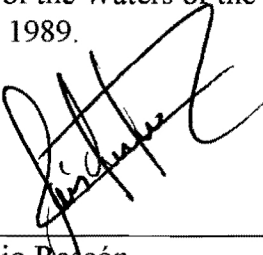
RECOMMENDATIONS

We recommend that the IBWC, adopt the above described distribution of costs and procedures for implementation as the agreement on the distribution between the two countries of the operation and maintenance costs of the principal elements of the jointly financed international sanitation project for the city of Nuevo Laredo, Tam., required by Resolution No. 8 of IBWC Minute No. 279, entitled, "Joint Measures to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas / Nuevo Laredo, Tamaulipas," dated August 28, 1989.



Carlos Marin
U.S. Section Principal Engineer

Respectfully,



Luis Antonio Rascón
Mexican Section Principal Engineer

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

**TABLE I
OPERATION AND MAINTENANCE COSTS
NUEVO LAREDO, TAM. WASTEWATER TREATMENT PLANT
SUMMARY OF 1996 OPERATION COSTS
(U.S. DOLLARS)**

ITEM	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
COMAPA OPERATION							
PERSONNEL	8,207	8,331	8,207	17,263	34,605	22,027	98,640
ELECTRIC ENERGY			10,928	52,136	50,055	53,287	166,406
REAGENTS				2,477	2,698	3,000	8,174
EQUIPMENT				2,956	11,449		14,405
LABORATORY				925	4,507		5,432
FACILITIES & BUILDING MAINTENANCE				110	3,474	4,539	8,123
VEHICLES				1,035			1,035
FUEL & LUBRICANTS	138	123	129	379	361	447	1,577
TELEPHONE	145	144	108	82	116	115	709
COMMUNICATIONS EQUIPMENT				2,706			2,706
OFFICE EXPENSES				410	182	56	648
MISC. MAINTENANCE				93	141	91	324
SILT REMOVAL			551	1,102	1,102	1,102	3,859
SEWERS & COLLECTORS							
SLUDGE DISPOSAL				131	127	569	827
SUBTOTAL	8,489	8,597	19,924	81,803	108,818	85,234	312,865
ATLATEC OPERATIONS	133,733	134,354	106,741				374,829
TOTAL	142,223	142,951	126,665	81,803	108,818	85,234	687,694

Exchange rate of \$8 Pesos per Dollar

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

**November 9, 1995
El Paso, Texas**

**JOINT REPORT OF THE PRINCIPAL ENGINEERS
CONCERNING RECOMMENDATIONS FOR THE OPERATION AND
MAINTENANCE OF THE INTERNATIONAL PROJECT TO IMPROVE THE
QUALITY OF THE WATERS OF THE RIO GRANDE AT
LAREDO, TEXAS-NUEVO LAREDO, TAMAULIPAS
ESTABLISHED IN MINUTE NO. 279**

**To The Honorable Commissioners
International Boundary and Water Commission
United States and Mexico
El Paso, Texas and Ciudad Juarez, Chihuahua**

Sirs:

In accordance with your instructions, we respectfully submit for your consideration, this joint report which proposes the specific activities for the operation and maintenance of the international sanitation project authorized in Commission Minute No. 279, entitled "Joint Measures to improve the Quality of the Waters of the Rio Grande at Laredo, Texas/Nuevo Laredo Tamaulipas", signed and approved August 28, 1989.

In this respect, we considered the requirement in Resolution No. 8 of Minute No. 279 that the Commission reach an agreement on the division of the operation and maintenance costs of the principal elements of the Nuevo Laredo Sanitation Project before operation of the project begins. We also note the requirement in Resolution No. 9 of Minute No. 279 that the operation and maintenance of the project be under the direct control of the Mexican Section of the Commission, and that the operation and maintenance be performed in accordance with an operations and maintenance manual and specific program recommended by the Commission and approved by the two Governments. Finally, we considered Resolution No. 20 for industrial wastewater pre-treatment to preserve the efficiency of the treatment plant contemplated in the sanitation project.

DESCRIPTION OF THE WORKS UNDERTAKEN IN NUEVO LAREDO, TAMAULIPAS

We observe that the design and construction of the six principal elements of the international sanitation project in Nuevo Laredo, Tamaulipas authorized in Minute No. 279 are nearing completion. These principal elements are: a) Riverside Collector; b) Coyotes I Collector; c) Sewage Collection System Expansion; d) Sewage Collection System Rehabilitation; e) Pumping Plant and f) Treatment Plant. These were installed and constructed based on the criteria established in Minute No. 279. We reviewed the construction criteria and observed that the construction should be such that in the operation and maintenance there should not be any discharges of untreated sewage into the Rio Grande from the Nuevo Laredo, Tamaulipas sewage collection system, and that the discharge

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

...2

into the Rio Grande from the Nuevo Laredo, Tamaulipas treatment should not exceed the discharge limits established in Minute No. 279.

We observe that the works undertaken under Minute No. 279 were as follows:

Riverside and Coyotes I Collectors

The Riverside and Coyotes I Collectors were constructed to ensure the proper collection and conveyance of Nuevo Laredo, Tamaulipas sewage to the international treatment works.

The Riverside Collector, located parallel to the Rio Grande, is 11 miles (18.3 kilometers (km) long and varies in pipe diameter from 18 inches (45 centimeters (cm) at the upper end to 72 inches (183 cm) at the lower end. The pipe diameters were up sized to assure that the collector has additional capacity to accommodate the city's future expansion. The collector will intercept and convey the sewage to a junction box located at the pumping station site.

The Coyote I Collector was constructed parallel to the Arroyo del Coyote to intercept and convey sewage from the collection system in the southern part of Nuevo Laredo, Tamaulipas to the junction box. It extends for 5 miles (8.7 km) long and varies in pipe diameter from 12 inches (30 cm) at the upper end to 48 inches (122 cm) at the junction box.

Expansion of Sewage Collection System

Several areas of Nuevo Laredo, Tamaulipas did not have any collection system, which resulted in discharges of residential sewage to nearby arroyos via open street flow, which eventually flowed to the Rio Grande. A total of 31 miles (49.8 km) of pipeline ranging in size from 6 inches (15 cm) to 24 inches (60 cm) was installed. Interconnection of residential lines to the Riverside and Coyote I Collector system was included in the project.

Rehabilitation of Sewage Collection System

Portions of the Nuevo Laredo, Tamaulipas sewage collection system are about 50 years old and have deteriorated to the point of collapsing. Rehabilitation of the sewage collection system was undertaken. Minute No. 279 envisioned rehabilitation of 23 specific sites, but for the most part the entire system required repairs or replacement. A total of 4 miles (6.7 km) of pipe was installed, varying in pipe diameters from 15 inches (38 cm) to 36 inches (91 cm).

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

... 3

Pumping Station

The pumping station consists of two separate wet wells, each having an inside diameter of 33 feet (10 meters) and 49 feet (15 meters) in depth. Each wet well will be equipped with three (3) 14 million gallons per day (mgd) or 600 liters per second (lps) submersible pumps and 281 hp motors. Each wet well has the capacity to pump to the treatment plant design capacity of 31 mgd (1360 lps). The two wet wells will be fed by the Riverside and Coyote I Collectors via a junction box.

Treatment Plant

The Nuevo Laredo International Wastewater Treatment Plant (NLIWTP) is an oxidation ditch vertical turbine aerator (carrousel) type facility designed to provide secondary treatment to 31 mgd (1360 LPS) at Nuevo Laredo, Tamaulipas. Location of the discharge point at the confluence of the Arroyo del Coyote and the Rio Grande is at 27.0 25' 01" north latitude and 99.0 29' 23" east longitude. Influent is from a pumping station constructed along the left bank of the Arroyo del Coyote which takes the flows arriving at a junction box from the Riverside and Coyote I Collectors. The Arroyo del Coyote is crossed by two 42-inch (106 cm) steel reinforced concrete cylinder force mains. The NLIWTP consists of a headworks structure containing two mechanical and a manual bar screens and two grit removal basins, six oxidation ditches with mechanical surface aerators, four clarifiers, chlorine disinfection facilities, effluent flow metering devices and a cascade aeration outfall to the Arroyo del Coyote. Sludge facilities include a return sludge pump station, aerated sludge holding tanks, waste sludge pumps, and 80 sludge drying beds. Other NLIWTP facilities include a potable and non-potable water system, an administration, maintenance and electrical building, standby generating facilities, a guard house, perimeter fencing and landscaping.

DESCRIPTION OF THE WORKS UNDERTAKEN IN LAREDO, TEXAS

We observe that the City of Laredo, Texas collects all of the existing sewage load and provides secondary treatment before discharge to the Rio Grande. Treatment is provided by two plants with a capacity totaling 11 mgd (486 lps) which discharge to the Rio Grande. The first plant, Zacate Creek Wastewater Treatment Plant, is an 8 mgd (350 lps) activated sludge/trickling filter facility located at the confluence of Zacate Creek and the Rio Grande about 0.5 mile (0.8 km) downstream of the Juarez/Lincoln International Bridge. The second plant, Laredo Southside Wastewater Treatment Plant, is a 3 mgd (131 lps) oxidation ditch facility located about 3 miles (5 km) south of the City of Laredo, Texas on the left bank of the Rio Grande. The effluents from these treatment plants are disinfected prior to discharge to the Rio Grande. The City of Laredo, Texas carries out a continuous operation and maintenance program to ensure compliance with United States effluent standards and surface water quality standards of the river. The City plans to increase its treatment capacity, as needed to keep ahead of the growing sewage load.

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

... 4

CRITERIA FOR OPERATION AND MAINTENANCE OF THE LAREDO, TEXAS AND NUEVO LAREDO, TAMAULIPAS SYSTEMS

The City of Laredo, Texas operates and maintains its system in accordance with an operating plan and operations and maintenance manuals that comply with applicable laws in the United States, which as a minimum comply with criteria listed below. This information is available to the Commission. The Operating Agency for the Nuevo Laredo, Tamaulipas system will adopt an operating plan and operations and maintenance manual, also made available to the Commission, utilizing applicable criteria in Mexico analyzed along with those for equipment installed at the plant that also, as a minimum, meet the criteria listed below:

Principal Collectors

The operations and maintenance of these elements should be as follows:

- a. A general annual or more frequent cleaning program as needed which includes the segments immediately upstream of the points where they intersect with collectors and subcollectors, ensuring that the transportation and final disposal of the solids removed during the cleaning in a manner that will prevent these materials from being carried in storm drains or natural drains that discharge to the Rio Grande.
- b. Operate and maintain the cleaning equipment in accordance with manuals.
- c. Immediate notification to the respective Section of the Commission of any potential and actual bypasses that result in the direct or indirect discharge from these collectors to the Rio Grande.
- d. Undertake repairs to damaged lines, remove obstructions and obstructing materials, taking measures that will prevent direct or indirect untreated sewage discharges to the Rio Grande.
- e. Inspections for the detection of pollutants, explosive, corrosive, clandestine discharges and obstructions.
- f. Consider a contingency plan of repairs with possible international support through the Commission for cases in which equipment and other resources are not immediately available to the operating agency.

INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO

... 5

Other Collection Network

We observed the need for the operation and maintenance of the collection network in the respective country based on a program that includes the following:

- a. Carry out the operation and maintenance of the network following the criteria that avoids spills from manholes that may directly or indirectly arrive at the Rio Grande.
- b. Develop a sludge and sand removal program that avoids spills from manholes that may directly or indirectly discharge to the Rio Grande, giving special attention to the areas which are brought to their attention by the respective Section of the Commission.
- c. Assure the separation of the storm drains from the sewer network.
- d. Carry out repairs to damaged lines and remove obstructions and obstructing materials.
- e. Effect periodic inspections to detect pollutants (explosives, corrosives, clandestine discharges, and obstructions).
- f. Consider in its contingency repairs plan, the possibility of international support through Commission.

Pumping and Treatment System

We observed the appropriateness of operating and maintaining these elements through the operating agency directly or through contract or other means considered adequate to ensure discharges from the treatment facilities comply with the standards established in Minute No. 279, and in accordance with an operation and maintenance manual adopted for this purpose considering the general criteria below:

- a. **Treatment** -- Carry out the operation and maintenance to assure compliance with the discharge standards established in Minute No. 279.
- b. **Personnel**-- Have the minimum required staff in each area with the experience necessary for the operation and maintenance of the treatment systems.

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

...6

- c. **Operation**-- Carry out the operation in accordance with instructions, specifications and criteria established in the operations and maintenance manual.

- d. **Facilities** -- Carry out periodic inspections and a preventive maintenance program for these components with special attention to the pumping systems, primary electricity facilities for the treatment systems and electro-mechanic components, including a schedule for preventative maintenance and availability on site of spare parts for such maintenance.

- e. **Sludge** -- Dispose of the sludge at sites outside the Rio Grande floodplain or its tributaries in accordance with standards in force in the respective country.

COMMISSION SUPERVISION

We consider it appropriate that each Section of the Commission ensure that the operating organizations responsible for the operation and maintenance of the treatment systems in Laredo, Texas and Nuevo Laredo, Tamaulipas have available to the respective Section of the Commission quarterly reports on maintenance work effected including, the costs of operation and maintenance that requires use of international funds.

Also, we suggest that Commission personnel through their personnel at the Laredo, Texas and Nuevo Laredo, Tamaulipas offices carry out the following activities:

- 1. Systematic inspections based on mutual accord and coordinated through the respective Section of the Commission.

- 2. Notify the Principal Engineers on sewage spills that may discharge to the Rio Grande and necessary corrective measures.

- 3. A quarterly report on work carried out with observations and where appropriate, recommendations on matters affecting payments with international funds.

- 4. Monthly reports of activities involving treatment, operation and maintenance, including monitoring of the water quality identifying problems observed and making recommendations to prevent them or resolve them.

**INTERNATIONAL BOUNDARY AND WATER COMMISSION
UNITED STATES AND MEXICO**

... 7

Industrial Wastes Controls

A. Preservation of Treatment

We observe that Resolution No. 20 of Minute No. 279 requires that all industries that discharge wastewater to the sewage collection system provide adequate pre-treatment to ensure the efficiency of the treatment system. For this purpose, the operating organization will develop a program for control of discharges by industries in Laredo, Texas and Nuevo Laredo, Tamaulipas based on the standards in its respective country.

B. Characterization of Influent and Effluent

We consider that semi-annual monitoring is sufficient to characterize the effluent and influent at the treatment works and to detect any dissolved and total constituents that exceed pollution concentration limits that inhibit biological treatment processes which will cause or contribute to a less effective treatment. The Commission will support the operating agency by strengthening its analytical capacity for those parameters that require more frequency.

We thus recommend, that in addition to the systematic monitoring of conventional pollutants and Biological Oxygen Demand (BOD), Nitrogen, Nitrogen with Ammonia, Total Suspended Solids (TSS) and pH, the influent be monitored semi-annually for non-conventional contaminants that may inhibit the biological treatment processes that cause or contribute to a less effective treatment. These contaminants include arsenic, chromium (total), copper cyanide, lead, nickel and zinc.

C. Additional Monitoring in Case of Exceedence

We recommend that if an analysis of the influent concentrations or effluent loadings indicate an exceedence of standards, monitoring should be increased to once a month until such time as analyses demonstrate three months of acceptable levels, at which time, frequency should revert to semi-annual.

We recommend that in cases where the standard is exceeded the operating agency of the treatment system, immediately begin an investigation of the source and in accordance with the special discharge conditions and define the corresponding corrective actions.

DISTRIBUTION OF COSTS

We observe the requirement in Resolution No. 8 of Minute No. 279 that the Commission reach an agreement on the division of the operation and maintenance costs of the principal elements of the Nuevo Laredo, Tamaulipas sanitation project before operation of the project begins. Further, we note that the Joint Report of the Principal Engineers that forms a part of Minute No. 279, recognized that the cost to the United States should correspond to the difference between the

INTERNATIONAL BOUNDARY AND WATER COMMISSION

UNITED STATES AND MEXICO

...8

operation and maintenance cost to Mexico to meet its national effluent standards established for Nuevo Laredo, Tamaulipas and the cost of operation and maintenance necessary to meet the effluent standards adopted in Minute No. 279 for the NLIWTP.

We consider it appropriate that the Principal Engineers, together with the operating organization, develop a specific program for distribution of operation and maintenance costs of the sewage system following the above principles with the goal of establishing, before the international project is in operation, a specific program of needs and distribution of costs for the first year and a general program for the next five years.

RECOMMENDATIONS

Based on the above consideration, we respectfully recommend:

1. The Commission adopt the criteria described above, for operation and maintenance of the six principal elements of the Nuevo Laredo, Tamaulipas International Sanitation Project authorized in Commission Minute No. 279, "Joint Measures to Improve the Quality of the Waters of the Rio Grande at Laredo, Texas/Nuevo Laredo, Tamaulipas", dated August 28, 1989 to comply with Resolution No. 8 of Minute No. 279.
2. The Commission adopt the bases described in distribution of costs section of this report whereby the Principal Engineers develop the specific distribution of costs and procedures for administration of United States and Mexican funds.

Respectfully,

(signed)

Jose S. Valdez
Principal Engineer
United States Section

(signed)

Luis Antonio Rascon Mendoza
Principal Engineer
Mexican Section

COMISION INTERNACIONAL DE LIMITES Y AGUAS
ENTRE MEXICO Y LOS ESTADOS UNIDOS

Ciudad Juárez, Chihuahua, 31 de mayo de 1997

ACTA 297

PROGRAMA DE OPERACIÓN Y MANTENIMIENTO, Y LA DISTRIBUCIÓN DE SUS COSTOS, DEL PROYECTO INTERNACIONAL PARA MEJORAR LA CALIDAD DE LAS AGUAS DEL RÍO BRAVO EN NUEVO LAREDO, TAMAULIPAS-LAREDO, TEXAS.

La Comisión se reunió en las oficinas de la Sección mexicana en Ciudad Juárez, Chihuahua, a las 10.00 h del 31 de mayo de 1997, para recomendar a los dos gobiernos un programa de operación y mantenimiento, y la distribución de sus costos, del proyecto internacional para mejorar la calidad de las aguas del Río Bravo en Nuevo Laredo, Tamaulipas-Laredo, Texas. Señalaron que los gobiernos de México y Estados Unidos en la Resolución 4 del Acta 279 de la Comisión intitulada "Medidas conjuntas para mejorar la calidad de las aguas del Río Bravo en Nuevo Laredo, Tamaulipas-Laredo, Texas", firmada el 28 de agosto de 1989, acordaron financiar conjuntamente la construcción, operación y mantenimiento de los seis elementos de este proyecto internacional. Además observaron que la Comisión, de acuerdo con las Resoluciones 8 y 9 del Acta 279, debe llegar a un acuerdo referente a la división de estos costos y recomendar a los dos gobiernos un programa específico de operación y mantenimiento.

Los Comisionados revisaron y encontraron satisfactorio el Informe Común de los Ingenieros Principales referente a las recomendaciones para la operación y mantenimiento del proyecto internacional para mejorar la calidad de las aguas del Río Bravo en Nuevo Laredo, Tamaulipas-Laredo, Texas, acordado en el Acta 279 de la Comisión, firmado por el Ingeniero Principal de la Sección mexicana Luis Antonio Rascón Mendoza y por el Ingeniero Principal de la Sección estadounidense Jose S. Valdez el 9 de noviembre de 1995. Los Comisionados tomaron nota de que la instalación y construcción de los seis principales elementos del proyecto internacional, a) Colector Ribereño, b) Colector Coyotes 1, c) Ampliación del sistema de alcantarillado, d) Rehabilitación del sistema de alcantarillado, e) Planta de bombeo y f) Planta de tratamiento, fueron concluidos en sus aspectos esenciales en julio de 1996. Los Comisionados observaron que el manual de operación y mantenimiento elaborado por México es consistente con los criterios que se establecen en el Informe Común referido, y que dicho manual estará sujeto a actualizaciones si las condiciones lo ameritan.

Los Comisionados se refirieron al Informe Común de los Ingenieros Principales recomendando la distribución de los costos entre los dos países para la operación y mantenimiento del proyecto internacional de Nuevo Laredo acordado en el Acta 279 de la CILA, firmado por el Ingeniero Principal de la Sección mexicana Luis Antonio Rascón Mendoza y el Ingeniero Principal de la Sección estadounidense Carlos Marin el 30 de mayo de 1997. Los Comisionados observaron que los Ingenieros Principales

COMISION INTERNACIONAL DE LIMITES Y AGUAS ENTRE MEXICO Y LOS ESTADOS UNIDOS

- 2 -

tomaron en cuenta los costos que deberían corresponder a Estados Unidos de los seis elementos principales del proyecto internacional, considerando que para México las normas de descarga de aguas residuales hacia el Río Bravo provenientes de Nuevo Laredo son diferentes a las de Estados Unidos, y que las descargas de la planta de tratamiento de Nuevo Laredo deberán apegarse a las normas internacionales acordadas en el Acta 279 de la Comisión, siempre y cuando las medidas de control necesarias para cumplir con tales normas sean financiadas conjuntamente por los gobiernos de México y Estados Unidos. Además, los Comisionados tomaron nota de que los Ingenieros Principales recomendaron un costo para Estados Unidos, considerando la diferencia entre el costo de México para una operación y mantenimiento que cumpliera con las normas nacionales del efluente establecidas para Nuevo Laredo, Tamaulipas y los costos de operación necesarios para cumplir con las normas de efluente utilizadas para la Planta Internacional; y considerando así mismo el objetivo del gobierno mexicano de reforzar a los Organismos Operadores. En ese sentido, el Organismo Operador necesitará mayor apoyo en los primeros años de operación y mantenimiento mientras se consolida su fortalecimiento.

Los Comisionados revisaron los procedimientos para la distribución de costos entre ambos países recomendados por los Ingenieros Principales en el Informe Común del 30 de mayo de 1997, y observaron que los Ingenieros Principales proponen que Estados Unidos cubra su participación en los costos estimados de operación y mantenimiento de los seis elementos principales del Proyecto Internacional de Saneamiento de Nuevo Laredo hasta el año 2005, distribuyendo la participación de Estados Unidos con base en los costos actuales. En tal sentido su participación será de \$350,000.00 dólares para 1996 y \$700,000.00 dólares para 1997. Asimismo, observaron la posición de Estados Unidos en el sentido de que, tomando como base un costo total estimado en un rango de \$15.0 a \$27.49 millones de dólares para un período de 10 años, no está en posibilidades de que su participación exceda del 33.3% de los costos reales incurridos en dicho período. Dicha participación asignada a Estados Unidos, estará sujeta a revisión al final de cada año, con base en los costos reales incurridos, y en función de la información proporcionada a la Comisión por la Sección mexicana, referente a los avances logrados en el proceso de fortalecimiento del Organismo Operador de Nuevo Laredo, Tamaulipas. También tomaron nota de la recomendación de que México, a través del Organismo Operador de Nuevo Laredo, cubra la diferencia hasta el año 2005, entre los costos reales del proyecto internacional de saneamiento y la contribución estadounidense para ese período, donde la Sección mexicana con el apoyo de la documentación comprobatoria que proporcione el Organismo Operador, concertará con la Sección estadounidense la relación de los costos reales incurridos, indicando aquellos costos que serán cubiertos con los fondos de Estados Unidos y los que serán pagados por México adicionales a la contribución estadounidense.

COMISION INTERNACIONAL DE LIMITES Y AGUAS
ENTRE MEXICO Y LOS ESTADOS UNIDOS

- 3 -

Adicionalmente, consideraron la recomendación de que al término de este período que concluye en el año 2005, la Comisión revisaría el acuerdo sobre distribución de costos a efecto de que presente recomendaciones al respecto, en función de la diferencia entre las normas de descarga en México aplicables al tramo del Río Bravo en Nuevo Laredo y las normas establecidas en el Acta 279, así como en función de la capacidad del Organismo Operador para operar la planta de manera autosuficiente. Finalmente, los Comisionados encontraron satisfactorios, los procedimientos específicos para los cobros y pagos mensuales recomendados en el Informe Común.

Con base en las consideraciones anteriores, los Comisionados adoptaron las siguientes resoluciones sujetas a la aprobación de los dos gobiernos:

1. Se adopta el Informe Común de los Ingenieros Principales referente a las recomendaciones para la operación y mantenimiento del proyecto internacional para mejorar la calidad de las aguas del Río Bravo en Nuevo Laredo, Tamaulipas-Laredo, Texas, acordado en el Acta 279 de la Comisión, firmado por el Ingeniero Principal de la Sección mexicana Luis Antonio Rascón Mendoza y el Ingeniero Principal de la Sección estadounidense Jose S. Valdez el 9 de noviembre de 1995, el cual forma parte integral de esta Acta, y constituye el programa específico de operación y mantenimiento requerido mediante la Resolución 9 del Acta 279 de la Comisión, intitulada "Medidas conjuntas para mejorar la calidad de las aguas de Río Bravo en Nuevo Laredo, Tamaulipas-Laredo, Texas", firmada el 28 de agosto de 1989, con el entendido de que México asegurará que al programa le sea incorporado el manual de operación y mantenimiento elaborado por México, el cual estará sujeto a actualizaciones si la situación lo amerita.
2. Se adopta el Informe Común de Ingenieros Principales recomendando la distribución de los costos entre los dos países para la operación y mantenimiento del proyecto internacional de Nuevo Laredo acordado en el Acta 279 de la Comisión, firmado por el Ingeniero Principal de la Sección mexicana Luis Antonio Rascón Mendoza y por el Ingeniero Principal de la Sección estadounidense Carlos Marin el 30 de mayo de 1997, el cual forma parte integral de esta Acta, y constituye el acuerdo para la distribución entre los dos países de los costos de operación y mantenimiento de los seis elementos principales del proyecto internacional de saneamiento financiado conjuntamente para la ciudad de Nuevo Laredo, Tamaulipas, y requerido en la Resolución 8 del Acta 279.
3. La administración de los fondos de Estados Unidos por la Sección mexicana deberá incluir la participación de los Ingenieros de la Comisión en los aspectos de:
 - a) Desarrollo de los contratos necesarios para mantenimiento extraordinario y


COMISION INTERNACIONAL DE LIMITES Y AGUAS
ENTRE MEXICO Y LOS ESTADOS UNIDOS

- 4 -

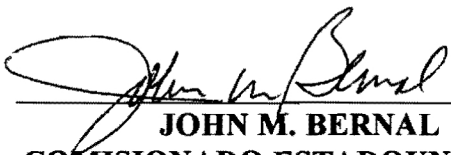
mejoramientos mayores; b) Supervisión de las operaciones en el marco del Informe Común del programa de operación y mantenimiento del 9 de noviembre de 1995, que incluya las visitas de campo que ambas Secciones estimen necesarias; c) Aplicación de los fondos de Estados Unidos a la operación y mantenimiento de los seis elementos acordados en el Acta 279 de la CILA; y d) La revisión anual del avance logrado en el proceso de fortalecimiento del Organismo Operador de Nuevo Laredo, conforme al objetivo del gobierno mexicano de reforzar la capacidad de dicha organización.

4. Todas las actividades llevadas a cabo en seguimiento de lo estipulado en esta Acta, estarán sujetas a la disponibilidad de los fondos, recursos y personal correspondientes, así como a las leyes y normatividad aplicables de cada país.
5. Esta Acta deberá entrar en vigor cuando el gobierno de los Estados Unidos Mexicanos y el gobierno de los Estados Unidos de América hayan notificado su aprobación a la misma a través de la correspondiente Sección de la Comisión.

Se levantó la sesión.



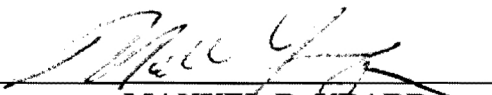
J. ARTURO HERRERA SOLÍS
COMISIONADO MEXICANO



JOHN M. BERNAL
COMISIONADO ESTADOUNIDENSE



JOSÉ DE JESÚS LUÉVANO G.
SECRETARIO DE LA SECCION
MEXICANA



MANUEL R. YBARRA
SECRETARIO DE LA SECCION
ESTADOUNIDENSE

**COMISION INTERNACIONAL DE LIMITES Y AGUAS
ENTRE MEXICO Y LOS ESTADOS UNIDOS**

**INFORME COMUN DE LOS INGENIEROS PRINCIPALES RECOMENDANDO
LA DISTRIBUCION ENTRE AMBOS PAISES DE LOS COSTOS DE
OPERACION Y MANTENIMIENTO DE LA PLANTA INTERNACIONAL DE
TRATAMIENTO DE AGUAS RESIDUALES DE NUEVO LAREDO ACORDADA
EN EL ACTA 279 DE LA CILA .**

Ciudad Juárez, Chih., a 30 de mayo de 1997.

A los Honorables Comisionados

Comisión Internacional de Límites y Aguas
entre México y Estados Unidos
Ciudad Juárez, Chihuahua y El Paso, Texas.

Señores:

Conforme a sus instrucciones, respetuosamente sometemos a su consideración este Informe Común recomendando la distribución entre los dos países de los costos de operación y mantenimiento de los elementos principales del proyecto internacional de saneamiento financiado conjuntamente para la Ciudad de Nuevo Laredo, Tam., acordado en el Acta 279 de la Comisión, intitulada “ Medidas conjuntas para mejorar la calidad de las aguas del Río Bravo en Nuevo Laredo, Tamaulipas - Laredo, Texas”, de fecha 28 de agosto de 1989.

ANTECEDENTES

Consideramos la resolución 4 del Acta 279 que establece que los gobiernos de México y Estados Unidos participarán en el financiamiento de la construcción, operación y mantenimiento de los 6 elementos principales que constituyen el proyecto internacional de saneamiento. Consideramos así mismo la resolución 8 que estipula que para los costos de operación y mantenimiento de los componentes principales del proyecto de saneamiento financiado conjuntamente, la Comisión llegue a un acuerdo respecto a la división de estos costos.

Así mismo, tomamos en consideración que la Comisión adopto los términos del Informe Conjunto de Ingenieros Principales que forma parte del Acta 279 en el cual se establece que en el caso de México las normas para descargas de aguas residuales al Río Bravo provenientes de Nuevo Laredo son diferentes de las estadounidenses, por lo cual se acordó que se aplicarían a la descarga de la planta de tratamiento de Nuevo Laredo las normas internacionales estipuladas en el Acta 279, siempre y cuando las medidas de control necesarias para cumplir dichas normas sean financiadas conjuntamente por los gobiernos de México y Estados Unidos. Adicionalmente, consideramos que el Informe Conjunto de referencia establece que el costo para Estados Unidos corresponderá a la diferencia entre el costo para México de la operación y mantenimiento para cumplir sus normas nacionales en Nuevo Laredo, Tamaulipas y el costo de operación y mantenimiento necesario para cumplir con las normas acordadas para esta planta internacional, en el Acta de referencia.

Finalmente, consideramos la información proporcionada por el Ingeniero Principal de la Sección mexicana en el sentido de que la política del gobierno de México es que los municipios adquieran una responsabilidad creciente en el financiamiento y en la operación y mantenimiento

COMISION INTERNACIONAL DE LIMITES Y AGUAS ENTRE MEXICO Y LOS ESTADOS UNIDOS

de los sistemas de agua potable y aguas residuales. En tal sentido el gobierno de México busca mejorar la capacidad institucional de los organismos operadores de los sistemas locales de saneamiento con la meta de que lleguen a ser autosuficientes en la operación y mantenimiento de dichos sistemas. Consideramos además que las normas de descarga de los dos países aplicables al área del Río Bravo en Nuevo Laredo - Laredo pueden en el futuro tender a ser similares, por lo cual es aconsejable fortalecer al organismo operador de Nuevo Laredo, Tamaulipas, para que pueda cubrir los costos que en su caso esto implique. Con este propósito un enfoque práctico para la distribución de los costos entre México y los Estados Unidos sería el de distribuir la participación estadounidense de tal forma que una proporción mayor se diera durante los primeros años de un período de 10 años y una proporción menor en la segunda parte de este lapso. Al término de este período recomendamos que la Comisión revise el acuerdo sobre distribución de costos y establezca recomendaciones al respecto, en función de la diferencia entre las normas de descarga en México aplicables al tramo del Río Bravo en Nuevo Laredo y las normas establecidas en el Acta 279, así como en función de la capacidad del organismo operador para operar la planta de manera autosuficiente.

DISTRIBUCION DE COSTOS

Observamos que los 6 elementos principales del proyecto internacional de saneamiento consistentes en: a) Colector ribereño, b) Colector Coyotes I, c) Ampliación del sistema de alcantarillado, d) Rehabilitación del sistema de alcantarillado e) Planta de bombeo y f) Planta de tratamiento de aguas residuales, fueron terminados en sus aspectos esenciales en junio de 1996. También observamos que los costos de algunas actividades de pre-operación y mantenimiento fueron cubiertas desde 1995. Revisamos el resumen de costos incluido en la Tabla I, correspondientes a los costos reales para el organismo operador para el período de julio a diciembre de 1996 y observamos que el total de estos costos en la planta de tratamiento y estación de bombeo fué equivalente a \$687,694.00 dólares.

Ademas, observamos que los costos de operación y mantenimiento de los elementos principales; Ampliación y rehabilitación del sistema de alcantarillado, serán desarrollados bajo las normas de México, de tal manera que el costo total fuera cubierto por México. Sin embargo, observamos que hubo un incremento del 25% en los costos de construcción de los Colectores Ribereño y Coyotes, mismo que es consistente con las medidas de control necesarias para cumplir con las condiciones de descarga establecidas en el Acta 279. En consecuencia Estados Unidos cubriría el 25% de los costos de operación y mantenimiento de dichos colectores. Así mismo, observamos que se agregaron ciertas características adicionales a los elementos que conforman la estación de bombeo, lo cual incrementó los costos de construcción de ésta y de la planta de tratamiento a fin de cumplir con las medidas de control necesarias para cumplir con las normas de descarga establecidas en el Acta 279. Con base en lo anterior, Estados Unidos cubriría el 25% de los costos estimados para la estación de bombeo. Sin embargo, los costos totales de la contribución estadounidense para la operación y mantenimiento de los seis elementos principales no deberían exceder el 33.3 por ciento del costo total. Con base en estos criterios estimamos que el costo de los seis elementos para 1997 estaría en el rango de \$1.12 a \$1.99 millones de dólares.

Revisamos los costos principales mencionados anteriormente, utilizando el Catálogo de Conceptos básicos que se muestran en la misma Tabla I y a partir de estos datos elaboramos una proyección de los rangos totales estimados desde 1998 hasta el año 2005, considerando un incremento en la generación de aguas residuales hasta llegar a la capacidad de la planta,

**COMISION INTERNACIONAL DE LIMITES Y AGUAS
ENTRE MEXICO Y LOS ESTADOS UNIDOS**

asumiendo un incremento del 10% anual hasta el año 2005 con respecto a los costos base estimados para 1997, en el rango de \$1.12 a \$1.99 millones de dólares y llegamos a un costo estimado total en el rango de \$15.00 millones de dólares a \$27.49 millones de dólares para un periodo de 10 años hasta el año 2005. En consecuencia, la participación estadounidense utilizando el valor mas bajo del rango citado se estima en \$5.00 millones de dólares hasta el año 2005.

Adicionalmente, tomamos en cuenta que el objetivo del Gobierno Mexicano es fortalecer al Organismo Operador y concluimos que éste requerirá un mayor apoyo en los primeros años de operación y mantenimiento del sistema, mientras desarrolla la capacidad necesaria para este propósito. De acuerdo a lo anterior, proponemos una distribución de la contribución de Estados Unidos basada en costos reales de \$350,000.00 dólares para 1996 y \$700,000.00 dólares para 1997, tomando en cuenta un costo total estimado en un rango que va de \$15.00 millones de dólares a \$27.49 millones de dólares para un periodo de 10 años hasta el 2005, así como la información proporcionada por el Ingeniero Principal estadounidense en relación a que su país no está en posición de aportar mas del 33.3 por ciento del costo total real de los 6 elementos principales en dicho periodo. Tal participación estadounidense estará sujeta a revisión al término de cada año, conforme a los costos reales, incluyendo aquellos en los que se incurra para la atención de contingencias y a la información que se presente en el seno de la CILA por la Sección mexicana en relación a los avances logrados en el proceso de fortalecimiento del Organismo Operador de Nuevo Laredo, Tam. Con base en esta revisión, a partir de 1998 se determinará en el mes de enero de cada año la participación estimada que corresponda a Estados Unidos en ese año y en los subsecuentes.

PROCEDIMIENTO DE IMPLEMENTACION

Para la implementación de la distribución de costos arriba propuesta recomendamos el siguiente procedimiento:

- 1.- Que Estados Unidos cubra su participación asignada de los costos estimados de operación y mantenimiento de los 6 componentes principales del Proyecto Internacional de Saneamiento de Nuevo Laredo en una cantidad de \$350,000.00 dólares en 1996 y \$700,000.00 dólares en 1997.
- 2.- Que para el periodo de 1998 al 2005, los Estados Unidos cubran su participación asignada en los costos estimados de operación y mantenimiento de los seis elementos principales del proyecto internacional de saneamiento sujeta a revisión y con los ajustes necesarios, al término de cada año, conforme a los costos reales que se presenten y la información presentada en el seno de la CILA por la Sección mexicana en relación a los avances logrados por el Gobierno de México en el proceso de fortalecimiento del Organismo Operador de Nuevo Laredo, Tam. conforme a lo señalado en los puntos del 3 al 6 siguientes.
- 3.- Que México a través del Organismo Operador de Nuevo Laredo cubra la diferencia hasta el año 2005, entre los costos reales del proyecto internacional de saneamiento y la contribución estadounidense correspondiente para ese período, proporcionando a Estados Unidos la relación de los costos reales basada en el catálogo de conceptos que aparecen en la Tabla I, indicando aquellos costos que serán cubiertos con los fondos de Estados Unidos

**COMISION INTERNACIONAL DE LIMITES Y AGUAS
ENTRE MEXICO Y LOS ESTADOS UNIDOS**

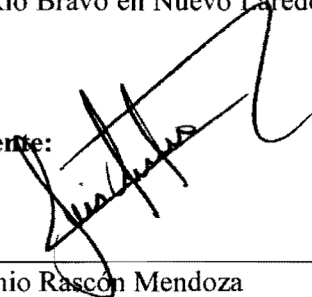
y los que serán pagados por México adicionales a la contribución estadounidense, estando disponible la documentación de apoyo correspondiente en el seno de la CILA.

- 4.- Que una vez aprobado este Informe Conjunto, la Sección estadounidense de la Comisión entregue a la Sección mexicana la contribución inicial de \$350,000.00 dólares correspondiente al año de 1996.
- 5.- Que en lo subsecuente, el organismo operador presente a la Sección mexicana los comprobantes necesarios de los costos reales de operación y mantenimiento del proyecto internacional en los que incurra cada mes, a fin de que éstos sean presentados en el seno de la CILA durante los primeros 10 días de cada mes conforme a lo señalado en el punto 3 anterior.
- 6.- Que la Sección estadounidense realice el pago a través de la Sección mexicana de los costos reales de operación y mantenimiento, presentados de acuerdo con el punto 5 anterior, dentro de los 10 días siguientes después de que estos le sean presentados a través de la Sección mexicana, y en un monto que no exceda a la proporción mensual correspondiente a la contribución anual correspondiente a ese país en efecto para ese año, utilizando la tasa de cambio de compra de pesos a dólares al cierre del último día laboral del mes en el cual se hayan efectuado los costos.

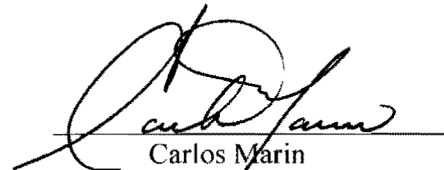
RECOMENDACIONES

Recomendamos que la CILA adopte la distribución de costos y los procedimientos para su implementación descritos en el presente informe como el acuerdo de distribución entre los dos países de los costos de operación y mantenimiento del Proyecto Internacional de Saneamiento financiado conjuntamente para la Ciudad de Nuevo Laredo, Tamaulipas, con base en la resolución 8 del Acta 279 de la CILA intitulada “ Medidas conjuntas para mejorar la calidad de las aguas del Río Bravo en Nuevo Laredo, Tamaulipas - Laredo, Texas” de fecha 28 de agosto de 1989.

Respetuosamente:



Luis Antonio Rascon Mendoza
Ingeniero Principal
Sección mexicana



Carlos Marin
Ingeniero Principal
Sección estadounidense

TABLA I

COSTOS DE OPERACION Y MANTENIMIENTO PLANTA DE TRATAMIENTO DE AGUAS RESIDUALES DE NUEVO LAREDO, TAM.

RESUMEN DE COSTOS DE OPERACION - 1996 (DOLARES)
(DOLARES ESTADOUNIDENSES)

CONCEPTO	JULIO	AGOSTO	SEPTIEMBRE	OCTUBRE	NOVIEMBRE	DICIEMBRE	TOTAL
OPERADO POR COMAPA							
MANO DE OBRA	8,207	8,331	8,207	17,263	34,605	22,027	98,640
ENERGIA ELECTRICA			10,928	52,136	50,055	53,287	166,406
REACTIVOS				2,477	2,698	3,000	8,174
EQUIPOS				2,956	11,449		14,405
LABORATORIO				925	4,507		5,432
MANTENIMIENTO DE EDIFICIOS E INSTALACIONES				110	3,474	4,539	8,123
VEHICULOS				1,035			1,035
COMBUSTIBLES Y LUBRICANTES	138	123	129	379	361	447	1,577
TELEFONOS	145	144	108	82	116	115	709
EQUIPO DE COMUNICACION				2,706			2,706
GASTOS DE OFICINA				410	182	56	648
MANTENIMIENTO DE MISCELANEOS				93	141	91	324
DESAZOLVE			551	1,102	1,102	1,102	3,859
MANTENIMIENTO DE LINEAS DE ALCANTARILLADO Y COLECTORES							
DISPOSICION DE LODOS				131	127	569	827
SUBTOTAL	8,489	8,597	19,924	81,803	108,818	85,234	312,865
OPERADO POR ATLATEC							
	133,733	134,354	106,741				374,829
TOTAL	142,222	142,951	126,665	81,803	108,818	85,234	687,693

TIPO DE CAMBIO: \$8.00 PESOS POR DOLAR

C:\MESCOS.XLS