## 4－5　プラスティック工場宛クエスチョネア

# QUESTIONNAIRE TO PLASTIC COMPANY

## I. General

1. Name of the company
2. Date of the establishment
3. Name of the President
4. Location of the mill
5. Capital amount
6. Annual sales amount by products
7. Organizaiton and number of employees classified by department and educational background
8. Production capacity by products
9. Raw materials
   a. Name of the countries of origin
   b. Annual consumption of the raw materials

## II. Technial matters

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)
2. Test items and test procedures in the manufacturing process for quality control
3. Present system for quality control
4. Significant quality problems to be solved, and factors delaying the solution, if any
5. Test items and test procedures for quality assurance of the products
6. Environmental problems, if any.

## 4－6　プラスティック工場からの回答

4－6－1　プラスティック工業会

## URUGUAYAN PLASTIC INDUSTRY ASSOCIATION

May 18, 1989

General Information

Foundation date : July 25 1956

Number of enterprises associated : 95

Number of workers : about 5.000

Main production processes :
- injection
- blowing
- extrusion
- compression
- *thermoforming*
- calendering
- rotational moulding
- glass fiber
- polyethylene film
- acrylics
- expanded plastics

Main raw materials :
- Low and high density polyethylene (LDPE, HDPE)
- polypropylene (PP)
- polystyrene crystal and high impact (PS)
- styrene acrylonitrile copolymers (SAN)
- *acrylonitrile/butadiene/styrene copolymers* (ABS)
- Methyl metacrylate
- Polyethylene terephatalate (PETP)

Raw materials are imported mainly from Argentina and Brazil.

Products : many different types and applications.
Attached : List of members
National products index

Directive Board of the Plastics Industry Association.

| | | |
|---|---|---|
| President : | Gualberto Rocco | (ATMA S.A.) |
| Vicepresident : | Leonardo Szyfer | (LAJA LTDA.) |
| Secretary : | Sergio Hofman | (NIBO PLAST S.A.) |
| Treasurer : | Jacobo Zwiebach | (STRONG S.A.) |
| Members : | Hugo Donner | (NEOSUL S.A.) |
| | *Uwe Thomsen* | *(BROMYROS S.A.)* |
| | Wilson Kellog | (FERRETI URUGUAY) |
| Substitute members : | Jorge Laitano | (SISEX S.A.) |
| | Antonio Vicentin | (CRISTALPLAST S.A.) |
| | *Federico Palazzi* | *(DIVINO S.A.)* |
| | Ismael Samudio | (NASIL S.A.) |
| | José Pedro Avila | (ERWA LTDA.) |
| | Jorge Vargas | (FANACRIL S.A.) |
| | Rubens Benitez | (S.A. ALPARGATAS) |

Executive Secretary : Hector de los Santos

Main activities of the Association:

–a) Improve the relations among all plastic producers.
–b) Improve the conditions in our industry and in the country.
–c) To defend the general interest of the industry and in particular of the plastic industry.
–d) To improve the conditions of workers and their relations with the enterprise principals.

*To satisfy the above mentioned objectives the Association brings to its members the following services:*

– Negotiation of products in the Bilateral Agreements like
  CAUCE Argentine–Uruguay
  PEC Brazil–Uruguay
– Assignment at sectorial level of the quotas of the above mentioned Agreements.
– Advice on labour regulations.
– To represent the interests of the Association and its members, against the national authorities, and the public and private sectors.
– Training courses coordination with Technical Schools from Uruguay and abroad (directed to machine operators, maintenance staff and so on).

STATUTES OF THE URUGUAYAN PLASTIC INDUSTRY ASSOCIATION

CHAPTER I

Name, object and address.

Article 1.– With the name of "Uruguayan Plastic Industry Association" and with address in the city of Montevideo, is founded with members and as a part of the "Uruguayan Industrial Union", and Institution regulated by the following rules:

Article 2.– Object of the Association:

a) To strengthen links between all the plastic materials manufacturers and developing and encouraging the association spirit between them.

b) To coordinate the interest of the members in order to improve the situation of the country, the industry and the Association.

c) To promote the best relations between the members.

d) To take appropriate measures to protect the interests of the industry and of the members of the Association.

e) To initiate and manage the contacts with the Public Sector, in order to protect and improve the conditions of the industry and the general interest of the Association.

f) To improve the conditions of workers looking for harmonizing their interest with the interest of the factory owners.

CHAPTER II (about the members)

Article 3.– The Association is integrated by Founding, Active, Suscribing and Honorary members.

Article 4. – Conditions to be a member:

a) Legal ability to act in trade.

b) To be presented by two Active members.

c) To be a member of the Uruguayan Industrial Union.

d) To be accepted by the Directive Board.

Article 5. – The Founding members are the Plastics manufacturers affiliated to the Association before October 23, 1956, having voice, vote and all the other rights given to the Active members.

Article 6. – The Active members are the plastic manufacturers affiliated after October 23, 1956 and accepted by the Directive Board.

Article 7. – The Active members can vote in the assemblies and can be elected for the directive positions in the Association after one year from their affiliation.

Article 8. – The Suscribing members are the commercial firms, industries or persons related to the plastic industry that contribute with the annual or monthly membership fee to the Association. Cannot have voice and vote in the assemblies nor be elected for the directive positions in the Association.

Article 9.– The Honorary members are persons nominated by the Directive Board and approved by the Assembly, in view to important services given to the Association or this industrial field.

Article 10.– The membership fee will be established by the Directive Board.

Article 11.– The members that delegate in others the participation in the Association should give to them the appropriate authorization.

Article 12.– Duties of the members:

a) To know and to fulfil the present statute.

b) To pay punctually the membership fee to have rights to the association benefits.

c) To participate in the assemblies.

d) To look for the interests of the Association and their good organization.

e) To respect and fulfil all the resolutions of the assemblies and the Directive Board.

f) To promote all the solutions that benefit the Association and this industrial sector.

g) To pay the entrance and monthly fees of the Uruguayan Industrial Union.

Article 13.– Member status is lost by:

a) Written resignment presented to the Directive Board that will be considered in the case that the member already satisfied the previous membership fees.

b) Fraudulent bankruptcy.

c) Debt of more than three monthly fees and remain in that condition after two warning notes from the Treasury.

d) Non fulfilment of the statute on the resolutions of the Directive Board and the Assembly. The exoneration of a member by this motive only can be decided by the Assembly.

e) Immoral or improper acts in the opinion of three members of the Directive Board, ratified in a second meeting by the same numbers of votes.

f) By non founded accusations, in this case the Directive Board must inform to the next Assembly on the motives of its resolution.

g) Resignment as a member of the Uruguayan Industrial Union.

Article 14.– The eliminated members can appeal against the resolution of the Directive Board in the next Assembly to be carry out (if the appeal is presented in no more than 10 days after the notification of the membership elimination).

Article 15.– The eliminated members could enter again in the Association after the fulfilment of the entrance conditions. If the elimination was based on Article 13c, the monthly fees indebt must be satisfied.

CHAPTER III (about the Directive Board)

Article 16.– The association will be managed by a Directive Board of seven titular and seven substituting members, for a period of one year (members could be reelected).

Article 17.– To integrate the Directive Board it is necessary to be an active member from at least one year and to be up to date with the membership fees.

Article 18.– The necessary quorum for the sessions is five members of the Directive Board to adopt resolutions and minutes approval, and of three members to put through the different matters.

Article 19.– The President or the Vicepresident, in case of temporary or definitive absence of the former, the legal representative of the Association will conduct the sessions of the Assembly, Directive Board, will sign together with the Secretary all minutes and documents of the Institution, and together with the Treasurer all acts or contracts of purchase, sale of any kind of goods immovable or movable, and all credits, rights or duties of the Association.

Article 20.– The Secretary will sign together with the President the minutes of sessions and all other documents of the Institution, will make the minutes of the Assemblies and Directive Board meetings and will present the Annual Report to be presented in the Assembly and for the approval of the Directive Board.

Article 21.– The Treasurer will manage the social funds, present the Annual Balance to the Assembly and for the approval of the Directive Board, and will sign together with the President all acts or contracts of purchase, sale of any kind of goods immovable or movable and all credits, rights or duties of the Association.

Article 22.– The Directive Board must sessionate at least once a month.

Article 23.– The resolutions of the Directive Board will be adopted by majority of the members present.

Article 24.– The members of the Directive Board that cannot participate in three consecutive meetings without a justifiable reason will be warn by note, and if in spite of that they remain nopn assisting to the meetings they will be replaced by the first Substituting member in the list announcing this fact to the other members of the Association.

Article 25.– Duties of the Directive Board:

a) To represent and conduct the Association in all its internal and external relations.

b) To summon and assist to Assemblies proposing and discussing there all the relevant matters, and to fulfil and control the fulfilment of all the resolutions adopted.

c) To control the fulfilment of the statutes.

d) Make the interpretation and application of the statutes in the particular cases not taken previously in account.

e) Consider the membership applications of new members or the reentering applications, and take resolution on the approval (majority of votes required)

CHAPTER IV (about the Fiscal Committee)

Article 26.– The Fiscal Committee must inspect all the economical affairs of the Association, alone or together with the Treasury. Must be integrated by three titular and three substituting members to be elected together with the Directive Board.

CHAPTER V (about the Assemblies)

Article 27.– The Association will make Ordinary and Extraordinary General Assemblies.

Article 28.– The summon for Assembly must be in written form with details of the matters to be discussed or the causes of the summon. The notice must be certificated and 5 days in advance.

Article 29.– The necessary quorum is half plus one the members of the Association, but after 30 minutes of the fixed initiation time the Assembly can operate and take resolutions with any number of members.

Article 30.– The Ordinary General Assembly must be held each October, and the Extraordinary each time that the Directive Board indicates, or by request of three members to the Directive Board. In this case the summon must be done not after eight days from the request.

Article 31.– In the Ordinary General Assembly the Directive Board must present the Annual Balance and Annual Report, and in this Assembly new members for the Directive Board should be elected.

CHAPTER VI (about the elections)

Article 32.– The elections for the Directive Board must be done using printed or handwritten lists without establishing the position and by simple majority of votes.

Article 34.– In case of draw decision must arise by raffle.

Article 35.– Five days before the elections the Directive Board must notice, in any adequate form, the list of members able to be elected.

Article 36.– The President must nominate three members to form the Elections Committee that will make a report on the results of the elections, in view of which the President will proclaim the elected members.

CHAPTER VII (General dispositions)

Article 37.– The Assembly can in any moment change, modificate or broaden this statutes by the affirmative vote of the half plus one of the members. The list of modifications must be distributed in advance.

Article 38.– This statutes will be submitted to the approval of the Industrial Chamber of the Uruguayan Industrial Union.

Article 39.– After the approval of the Industrial Chamber and to obtain the Legal Personate the Directive Board can make the necessary actions as well as to accept the modifications required by the Executive Power.

Article 40.– The Association can not be dissolved by any reason if at least five members wish its continuation.

Article 41.– In case of dissolution of the Association it must be carried out the settlement of all properties and the remaining result including all files will be given to the Uruguayan Industrial union.

4 - 6 - 2 ATMA S. A.

ATMA S.A. RINCON 728 MONTEVIDEO - URUGUAY. TEL.: (02) 91 75 31-33.- 90 16 52. P.O. BOX 729 - TLX. ATMA UY 22535

QUESTIONNAIRE TO PLASTIC COMPANY

I) G E N E R A L

1) ATMA S.A.

2) 1948

3) Victor Armando Chaquiriand

4) Ruta 5 km. 19, La Paz - Departamento Canelones

5) Social Capital N$ 50.812.204

6) Aprox. US$ 3.000.000

7) Of the Company:

- Production: 130
- Maintenance: 13
- Mill Administration: 13
- Mould Making Mill: 12
- Sales Department: 30 (includes expedition)
- Board Members: 4
- General Services: 20

All areas are led by managers, who are engineers (in the mill) or specially trained people (in the Sales Department).

We permanently send our people to courses on different subjects (human relations, personal security, sales, marketing, costs, etc.).

Atma hires the administration services from another company. These services include: Purchasing, Finance, Book-keeping, Personnel.

8) 2.500 tons/year

9) HIPS, PS, SAN, ABS, PP, HDPE, LDPE, LLDPE, PA, PC, PMMA, Acetals, CAB.

a) Brazil, Argentina, W. Germany

b) PS: 40-50 tons/year
HIPS: 180-200 tons/year
PP: 130-150 tons/year
HDPE: 1200-1300 tons/year
LDPE: 100-120 tons/year

## II) T E C H N I C A L M A T T E R S

1) The mill is directed by an Industrial Manager who depends on the General Manager. The areas of which he is directly responsible are:

a) Production (including Finishing)
b) Maintenance
c) Mould making
d) Quality Control
e) Administration and General Services

The structure of each Department is the following;

a) Production: 1 Chief engineer
1 Assistant to the chief engineer
5 Supervisors (transforming)
3 Supervisor (finishing)
2 Supervisor (silkscreening)
118 Workers (working in three shifts in the processing area and two shifts in the finishing and silkscreening areas.

(Each supervisor has at least one assistant who is trained to be a supervisor in the future)

b) Maintenance: 1 Chief engineer
1 Chief supervisor
11 Workmen with different specializations sometimes obtained in the technical school (mechanical, electrical, etc.)

c) Mould Making: 1 Chief engineer
1 Chief supervisor
10 Workmen (most of them are diplomat mould making workmen

d) Quality Control: 1 Engineering student
2 Supervisors

e) Administration and General Services: Include the mill book-keeping, stocks, ware-houses, door-keepers, gardeners, cleaners, etc.

The equipment installed in the factory is the following:

- 13 injection molding machines (range from 40 to 1200 tons closure pressure) mainly Italian and about 10 years old
- 2 blow molding machines (50 and 80 litres, 1960 and 1980)
- 3 extruders (one of 4 1/2" screew diameter and two of 2 1/2")
- 1 termoformer (Italy 1980)
- 5 rotational molding machines
- 4 silkscreening machines
- Auxiliary equipment to the production machines, such as water chillers/heaters, grinders, dryers, mixers, hopper chargers, forklifts, etc.

The quality control laboratory is equiped with:

- 1 suntest machine (outdoor exposure)
- 1 melt indexer
- 1 densimeter
- 1 precision weighing scale
- 1 platform for drop test
- 1 set of usual measuring instruments
- 1 set of devices for the quality control of bottle crates and boxes (impact, drop, tensoactive bath, pressure, etc.)

2-3) There are different procedures for quality testing according to the products manufactured. All the special devices were created and/or built in our factory. These procedures take place during the process, and are registered in specially designed forms. Usual quality controls include: color, matching, dimensional stability, deformation control, capacity control, closure control, resistance to tensoactives control, etc.

All raw materials entering the ware-house are checked in their melt-index and sometimes in density.

4) The main problems that we have in quality are due to the state of our molds, which are quite old. As our mould making department is usually saturated of work, we are not able to modernize molds or to build new ones as replacements. The new molds are produced with modern technology and have high outputs.

5) The first and main quality procedure we make is the weight control. The values are written down in forms (there is one form for each machine) and when these are out of standard, the supervisor is put immediately under notice to take the corrective actions. Depending on the product, it may be definitively rejected and ground or not. This control is made every half hour.

   All machine operators have a quality approved specimen which is consulted, when necessary, during the production process.

   Regularly blow molded articles are drop tested and, when required, an hermeticity test is done.

   Bottle crates are tested once every eight hours in the tensoactive bath; once every shift a sample of crates is drawn to control the dimensional stability, flashes, color, and general appearance; and once every week a sample is drawn to control a series of requirements stated by our customers.

   In our own line of products such as house-wares, controls of color, leveling, closure, fitting, homogenity, etc. are carried out.

   All the tests are run, when necessary, in specially designed equipment and noted in forms.

## 4-6-3 FANACRIL LTDA

QUESTIONNAIRE TO PLASTIC COMPANY

I. GENERAL

1. Name of the Company.
   FABRICA NACIONAL DE ACRILICOS LTDA. (FANACRIL LTDA.)

2. Date of the establishment.
   April 1,1970

3. Name of the President.
   Roberto Zecharies
   Alberto Pesovich
4. Location of the mill.
   Luis A. de Herrera km 32,7 Pando, Canelones.

5. Capital amount.
   U$S 500.000

6. Annual sales amount by products.

   Acrylic plates  U$S 1.000.000

7. Organization and number of employees classified by department and educational background.

Administration Department: 10 employees ( Manager,Accountant,3 assistants for accounting,salesmen and warehousing).

8. Production capacity by products.

600 tons per year

9. Raw materials
   a) Name of the countries of origin.
      Methyl methacrylate (monomer)
      Pigments
      Colorants
   Origin: Mexico,France,England,Brazil,USA.

   b) Annual consumption of the raw materials.

      Methacrylate: 300 tons/year.
      Pigments:  0,5 ton/year

## II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)
Personnel: Production Manager (Chemical Engineer)
Production Chief
2 foremen
25-30 workers ( 2 shifts)
Production machinery list.-
1 atmospheric distillator
3 reactors (double wall) of stainless steel
2 double wall tanks (stainless steel)
5 vacuum tanks (stainless steel)
2 vacuum equipments.
2 boilers 1 fuel oil and the other wood burning.
2 independent production lines for moulds preparation (one for small sizes totally manual, the other is semiautomatic with suction equipment for mould movement)
5 water baths (25.000 liters each) for the polymerization of acrylic plates.(cast acrylic sheets).
1 despolymerization equipment (cracking) for reconversion from polymer to monomer.
1 equipment for chemical treatment of the recovered monomer.
1 equipment for seamless acrylic tubes by centrifugation (cast acrylic tubes)
Moulds of tempered glass for making acrylic plates of sizes up to 3,1 x 1,85 m (Made in England)
Land area: 10.000 m2
Covered area: 4.000 m2

Laboratory equipment list
General material for chemical analysis
Testers for final product control: Barcoll indentometer,visual colour comparator, callipers etc.

2. Test items and test procedures in the manufacturing process for quality control.
The objective of the quality control tests in the production process is related with the control of the polymerization and its effects on the technical properties of the final product.
It's a chemical factory with a plastic as the final product , then the controls are more of the chemical type since instead of processing an already made plastic or polymer the polymer itself is being made in the process.

3. Present system for quality control.
a) Raw materials
General tests on methyl methacrylate monomer (ASTM and general chemical analysis)

b) During the process .
b.1) production of acrylic sheets: physical methods for control of the degree of polymerization.
b.2) cracking of the polymer for monomer reuatilization: physical methods for control of the cracking process and chemical analysis of the product obtained.

c) Final Product
Weight, thickness and other physical properties,visual colour control , test on the surface hardness.

4. Significant quality problems to be solved and factors delaying the solution if any.
a) To obtain the same colour in the different production batches.
b) Colour matching (metameric colours)
c) Heterogeneous distribution of molecular weights or contaminations in the raw materials that imparts optical distortions in the acrylic sheets after moulding.
d) Procedures for giving opacity (with styrene copolymers)

The solution to this problems is hindered by the non available specialized testing instruments and . by the small scale of production that makes difficult to justify this investment.

5. Test items and test procedures for quality assurance of the products.
Because of the small production scale there is not a quality assurance section , but we make a permanent control in the different production steps.

6. Environmental problems ,if any.

No environmental problems found.

4-6-4 GALEA S.A.

QUESTIONNAIRE TO PLASTIC COMPANY May 16 ,1989

I. GENERAL

1.Name of the Company.
GALEA S.A.

2.Date of the establishment.
February 1985

3.Name of the President.
Alfredo F. de Mello

4.Location of the mill.
Juan Paullier 1887

5.Capital amount.
N$ 50.000

6.Annual sales amount by products.

| | | |
|---|---|---|
| Straps | N$ 150.000.000 | ( U$S 270.000) |
| plastic rope | 4.500.000 | ( 8.000) |
| Decorative ribbon | 17.000.000 | ( 31.000) |
| Strings | 12.000.000 | ( 22.000) |
| Plastic belts * | 22.000.000 | ( 40.000) |

* 95% for export.

7.Organization and number of employees classified by department and educational background.
Administration : 7 (highschool)
Sales : 3 "
Production : 5 "

8.Production capacity by products.

| | |
|---|---|
| Straps | 25 ton/month |
| Plastic rope | 3,75 " |
| Decorative ribbon | 3 " |
| Strings | 9 " |
| Plastic belts | 6 " |

9.Raw materials
a) Name of the countries of origin.
Polypropylene ,polyethylene of low and high density:Brazil
Polyurethane : W.Germany

b) Annual consumption of the raw materials.

| | |
|---|---|
| Polypropylene | 120 ton/year |
| High density polyethylene | 15 " |
| Low density polyethylene | 5 " |
| Polyurethane | 2 " |

II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)
1. Foreman ,technician and 3 assistants.
-Rulli-Davis standard equipment for strap extrusion and monofilament, diameter 60 mm
-Extruder (local made) diameter 45 mm for blowing film and ribbons, with stretching train , relax tower and standard coiling machine.
-Extruder (local made) diameter 38 mm for polyurethane belts production with bath and tensile train.
-String twisting machine with 14 positions ( made in Taiwan)
- 1 twisting and 2 plaiting machines (Nadolski) for plastic rope.
- 2 cone machines for string.
- Mixer for raw materials (local made)
- Oven

2. Test items and test procedures in the manufacturing process for quality control.
Object: to supply a good product.

3. Present system for quality control.
Periodic verification of the dimensions of the products.

4. Significant quality problems to be solved and factors delaying the solution if any.
The biggest problem is in strap production,which in the coils at warehouses had some twisting. The causes of the problem could be melt flow variations of the raw material,wrong distribution of the material inside the matrix,or problems in the stretching ,waiting ,or coiling zone.Until now we can't solve this problem.
A second problem is the extrusion of polyurethane belts of Shore A 95 hardness.We can extrude material with hardness Shore A 85 without problems,but with Shore A 95 it happens an intermitent flow of material that causes diameter variations of the belts.
A third problem is encountered in the production of the 15 mm diameter polyurethane round belt that presents some shrinking due to heterogeneous cooling.

5. Test items and test procedures for quality assurance of the products. No used.

6. Environmental problems ,if any.
Not existent.

4-6-5 LAJA LTDA

QUESTIONNAIRE TO PLASTIC COMPANY

I. GENERAL

1.Name of the Company. LAJA LTDA.

2.Date of the establishment. August 20, 1936

3.Name of the President. Arturo Szyfer
Leonardo Szyfer
Jorge Szyfer

4.Location of the mill.
Rute Nº67 km 24.500 Las Piedras Canelones.

5.Capital amount. N$ 48.000

6.Annual sales amount by products.

| | | | |
|---|---|---|---|
| Exports : U$S 6.000.000 | | PVC compounds U$S | 3.000.000 |
| | | Thermoplastic rubber | 2.000.000 |
| | | Others | 1.000.000 |
| Domestic market : | | | |
| U$S 1.900.000 | | Plastic tubes U$S | 600.000 |
| | | Construction materials | 350.000 |
| | | Compounds | 750.000 |
| | | Plastic furniture | 200.000 |

7.Organization and number of employees classified by department and educational background.

| | |
|---|---|
| Administration and Sales: | 50 |
| Industrial plant: | 120 |
| Warehouse: | 15 |
| Distribution: | 15 |
| Maintenance and services: | 20 |
| Purchasing section: | 10 |
| Cleaning service: | 10 |

8.Production capacity by products.

9.Raw materials
a) Name of the countries of origin.
Brazil,Argentine, Mexico,U.S.A.,Belgium,Holland,Spain, Italy.

b) Annual consumption of the raw materials. U$S 5.000.000

## II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)

a- Organization The plant Direction has three Divisions:
Production , Maintenance and Research and Development.
b- Number of personnel: 240
c- Machinery
8 Extruders double screw with diameters from 60 to 150 mm
6 Extruders monoscrew
4 injection machines ( 2 of them able for PVC and polyolefins)
Auxiliary equipment
-Stretching trains
-Vacuums vats
-Connection aids

Laboratory equipment: Plastograph
Melt index
Roll mill
Tensile Tester
Equipment for hydraulic tests on tubes and accesories
Pilot plant for making thermoplastic and thermosetting compounds.
Laboratory injection machine
Laboratory press
Laboratory extruder

2. Test items and test procedures in the manufacturing process for quality control.

Ussualy control of dimensions.

3. Present system for quality control.

-Quality control of raw materials.
-Quality control of final products.
Standard test methods are used.

4. Significant quality problems to be solved and factors delaying the solution if any..
Tests on long term ambient exposition of products.
Development of PVC compounds and thermoplastic rubber for new applications.
Colour matching
Factors delaying the solution : the cost of the testers for the above mentioned purpose makes such investment non viable.

5. Test items and test procedures for quality assurance of the products.
See 3 above.

6. Environmental problems ,if any.
Not found.

4-6-6 NASIL S.A.

QUESTIONNAIRE TO PLASTIC COMPANY May 17 , 1989

I. GENERAL

1.Name of the Company. NASIL S.A.

2.Date of the establishment. August 2,1982

3.Name of the President. Ismael Samudio

4.Location of the mill. Office: Arenal Grande 1781 Montevideo
Plant: 74 Route KM 25.200 Suarez
Canelones

5.Capital amount. U$S 400.000

6.Annual sales amount by products.

| Product | U$S/year |
|---|---|
| Yarn | 22.950 |
| Mosquito net | 153.900 |
| Sail-cloth | 13.500 |
| Ribbon | 89.550 |
| Rope | 67.500 |
| Hand-bags | 148.500 |
| Others | 20.250 |

7.Organization and number of employees classified by department and educational background.

| | |
|---|---|
| Manager | 3 |
| Production personnel | 39* |
| Administration | 5 |
| Maintenance | 3 |

* One Plant Chief, 2 foremen and 36 workers.

8.Production capacity by products.

| Product | Production capacity per year |
|---|---|
| Yarn | 130.000 kg** |
| Mosquito net | 130.000 m2 |
| Sail-cloth | 12.000 m2 |
| Ribbon | 1.000.000 m |
| Rope | 20.000 kg |
| Hand-bags | 150.000 units |
| Others | 5.000 kg |

** yarn capacity includes the portion of the production used for making other products.

9.Raw materials : high density polyethylene
a) Name of the countries of origin: Brazil
b) Annual consumption of the raw materials: 100 ton

II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)
Organization and number of personnel were detailed in I.7.
Laboratory for quality control not available by the moment.
Machinery: 4 Extruders of 45 mm diameter
3 Stretching and coiling equipment for yarn
1 warping machine
15 flat looms for textile products of 1,5 and 2,00 m width
2 looms for ribbon
1 recovery mill
4 Braids
Auxiliary equipment for each process

2. Test items and test procedures in the manufacturing process for quality control.

| | |
|---|---|
| Yarn | diameter regularity |
| | title |
| | colour |
| | tensile strenght |
| | weathering |
| Rope | tensile strenght |
| Textiles | netting |
| | failures control |

3. Present system for quality control.
Quality control is being done visually and with the aid of magnifying glasses,manual micrometers and precision balances.

4. Significant quality problems to be solved and factors delaying the solution if any.
-To obtain constant colour products
-Control of yarn diameter

5. Test items and test procedures for quality assurance of the products.
We don't know procedures for quality assurance.

6. Environmental problems ,if any.
Not found.

## 4-6-7 NEOSUL S.A.

QUESTIONNAIRE TO PLASTIC COMPANY

I. GENERAL

1.Name of the Company. NEOSUL S.A.

2.Date of the establishment. 1962

3.Name of the President. Ing. Herbert Donner

4.Location of the mill. Aizpurua 2092, Montevideo

5.Capital amount. U$S 1.200.000

6.Annual sales amount by products.
Films and PVC coated fabrics U$S 4.000.000

7.Organization and number of employees classified by department and educational background.

| | | |
|---|---|---|
| Production and maintenance | Workers | 95 |
| | Managers and administration | 10 |
| Administration | | 15 |
| Auditor | | 2 |
| Computing | | 3 |
| Commercial trading department | | 8 |
| Laboratory and quality control | | 4 |
| Professional staff | | |
| Engineers | | 4 |
| Engineer assistant | | 1 |
| Accountant | | 1 |

8.Production capacity by products.
The production lines are flexible and can make all the products.
Production capacity is 150-200 ton/month (1.800-2.400 ton/year)

| 9.Raw materials | Origin | Consumption ton/year |
|---|---|---|
| PVC resin | Argentine<br>Brazil<br>Mexico | 550 |
| Stabilizers | Argentine<br>West Germany<br>Japan | 20 |
| Other pigments | various | 6 |
| Calcium carbonate | France<br>Argentine<br>Brazil | 70 |

II. TECHNICAL MATTERS

1. Organization,number of personnel and list of equipment (both in manufacturing line and in laboratory)
Production Machinery
3 two rolls plastic calenders Zimmer (Germany) two of them of 1450 mm width , and the other of 1300 mm width,including thickness measuring system by radioisotopes.
6 extruders: 2 monoscrew (local made)
1 " (from Argentine Amut)
1 " (from Italy Amut)
1 doublescrew (Italy,Amut)
1 " (Japan,Toshiba)
Mills
Mixers
1 Stamping machine by gravure (one colour)
1 Electrical oven for foaming
1 Drilling machine Bickel (Germany)
1 Stamping machine with oven Dornbush (Germany)
1 complete maintenance workshop
1 Workshop for the production of stamping cylinders

Laboratory
Flexure tester Frank (Germany) 500 cycles/min
Laboratory rolling mill Mecanoplast (Brazil)
Tensile strenght tester T 5.000 J.J.Instruments (U.K.) with plottera
Screen J.E.L.
Folding-flexing machine (local made)
Film cheking machine (local made)
Analytical balance WA 32 (Polland) (0,5/10.000g)
Laboratory stamping machine (local made)
2 balances dial-o-gram 310 Ohaus (USA)
1 balance dial-o-gram 2610 Ohaus (USA)

2. Test items and test procedures in the manufacturing process for quality control.
2.a Quality control of raw materials. The objective es to verify the fulfilment of specifications

| Product | Test |
|---|---|
| Resin | Particle size |
| | Impurities |
| Plasticizer | Colour |
| | Density |
| | Flash point |
| Stabilizers | Stabilizing effect |
| Lubricants | Melting point |
| | Impurities |
| | Iodine index |
| Additives | Physical aspect |
| Fillers | Colour |
| | Plasticizer absorption |
| Pigments | Colour |
| | Covering power |

2.b Process control
The object is to check that the product satisfies the prescribed specifications.

| Process step | Test |
|---|---|
| Pigments dispersion | colour verification |
| | size reduction grade |
| Laminating | weight and thickness |
| | adhesion of the plastic layer |
| | tensile strenght of fabric |
| | tearing strenght of fabric |
| | elongation under stress |
| | dimentional stability |
| | folding and flexing |
| | gravure loss |
| | water permeability |
| | impact resistance |
| | flammability |
| | blocking |

3.Present system for quality control

a) Raw materials control by the laboratory.

b) Production process control by the operator with the support of the laboratory when needed.

c) Final product control by the laboratory.

d) Quality audit of the product to be delivered.

4. Significant quality problems to be solved and factors delaying the solution if any.

a) Bad quality of raw materials. It is difficult to check due to the absence of adequate testing instruments.

b) Difficulties for quality improvement, due to the high cost of the experimental trials in the commercial machines.

c) Impossibilities of adapting some products to market requirements, due to the difficulties in getting new technologies.

d) Lacking of equipment for doing some tests on the quality of the final product.

6. Environmental problems, if any.
Concentration of vapours and plasticizers. There are some problems with the measuring of such items due to the high cost of the instruments required, so we are not sure that the ventilation system is the more adequate.

## 4-6-8 NIBO PLAST URUGUAYA S.A.C.I.

QUESTIONNAIRE TO PLASTIC COMPANY

I. GENERAL

1.Name of the Company. NIBO PLAST URUGUAYA S.A.C.I.

2.Date of the establishment. SEPTEMBER 1, 1952

3.Name of the President. ABEL HOFMAN

4.Location of the mill. CHIAVARI 2865/TENIENTE GALEANO 3160

5.Capital amount.

6.Annual sales amount by products. U$S 5.000.000

7.Organization and number of employees classified by department and educational background.

| | |
|---|---|
| Plant workers | 250 |
| Moulding making | 20 |
| Administration | 50 |
| Managerial staff | 7 |

8.Production capacity by products.

9.Raw materials

a) Name of the countries of origin.

Argentine,Austria,Brazil,USA

b) Annual consumption of the raw materials.

1200 tons

II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)
1) In the injection of thermoplastics field we have 26 injection machines with capacities in the range from 50 g to 6 kg with presses in the range from d40 to 1200 ton.
In athe extrusion process , processing of all thermoplastic by roll mills:rolls from 20 to 1200 microns and calendered sheets with thickness from 0,5 to 7 mm and dwidth up to 1,2 m.Number of machines =3.
Processing of thermoplastics by extrusion blowing for packages from 20 cm3 to 20.000 cm3.Number of machines=6.
Automatic thermoforming process for one use packages.Number of machines=4
Auxiliary production system:
Mould making workshop with capacity in circular shapes up to 2 m diameter and 8 tons weight, and rectangular ones up to 1,2 x 1,2 m and 7 tons wight. Number of machines = 35.
Printing by screenprinting,offset ,and hot stamping.Number of machines= 15
Laboratory equipment: tensile tests,weathering tests,loss of colour and impact resistance of some products,precision balances. Number of machines= 5.

2. Test items and test procedures in the manufacturing process for quality control.
The main object in the production process is the control of each item to satisfy the prescribed specifications ,technical tests on the industrial products and sampling and tests on the final losts produced.

3. Present system for quality control.
Control by variables and by attributes in the production process, with specific sampling procedures , and on each final lot based on onternational or local standards.

4. Significant quality problems to be solved and factors delaying the solution if any.
-Building problems.
-Quality of the raw materials that can not be tested due to the lack of appropriate testing equipments.
-limited machines equipments.
-Difficulty in getting specialized man power.

5. Test items and test procedures for quality assurance of the products.
At first we must make quality control tests on the differents types of raw materials, in the fields of thermoplastics ,for such purpose we don't have any testing equipment.
Also machines for testing final products are needed as we have only the above mentioned equipment.

6. Environmental problems ,if any.

Not found.

4-6-9 SISEX S.A.

QUESTIONNAIRE TO PLASTIC COMPANY Montevideo May 17,1989

I. GENERAL

1.Name of the Company. SISEX S.A.

2.Date of the establishment. SEPTEMBER 1 , 1964

3.Name of the President. AMADEO CARTESIO
JORGE LAITANO (GENERAL MANAGER)
SILVIA GUERRA (MANAGER ASSISTANT)

4.Location of the mill.
Angel Floro Costa 1529-Jose L. Terra 2106- Montevideo

5.Capital amount. N$ 30.000

6.Annual sales amount by products.
U$S 800.000 Vinyl coated fabrics 100% for domestic market.
(11 months of production)

7.Organization and number of employees classified by department and educational background.
Administration: 4 persons with University background.
Plant: 13 persons with Highschool level.

8.Production capacity by products.
500.000 m / year (11 months of production)

9.Raw materials
a) Name of the countries of origin.
Europe:Germany,Sweden,England,France,Spain.
America: USA,Mexico,Brazil,Argentine.

b) Annual consumption of the raw materials.
Chemical products: 120.000 kg
Base fabric: 100.000 m

II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)

a. 1 Technician-1 Assistant
4 machine operators-6 assistants
1 cutting operator,final control.

b Machinery and equipment
Production line- Balances (big and small size)
1 High speed dispersion machine 200 kg
1 " " " " 20 "
Three roll mill for plastisols production - 300 kg/h
Three roll mill for additives and pigments.
Gelification line composed of rolls fabric/paper autoalignable.
Plastisol applicator, laminator,curing tunnel ( 7 meters long with electrical heaters
Embossing system with multiple rolls,cooling system and tensile system for release paper.
Gravure system,impregnation equipment,ink applicator,lacquer applicator with drying tunnel,high speed dispersion machine, colloid mill.

Laboratory equipment: Precision balance,Brookfield synchroelectric viscosimeter model R.V.T. ,grind meter wedge.
Manual applicator-flash point control Ford cup
Non contact infrared temperature meters, dial-calipers,counter of meters for thickness.

2. Test items and test procedures in the manufacturing process for quality control.
Test are being done mannually: colour control under a specified light,gloss,dull,elongation, tear.
In laboratories outside the factory we ask for the following tests: weariness,abrasion,colour permanence,exudation,inks and lacquer adhesion from the plastic to the fabric.

3. Present system for quality control.
Quality control by attributes: thichness,flexure,gloss,dull,weight and base fabric.

4. Significant quality problems to be solved and factors delaying the solution if any.

We must do outside the factory most quality control tests and we have a considerable delay in getting the results.

5. Test items and test procedures for quality assurance of the products.
Quality starts from using raw materials made by well known manufacturers. Then control on the intermediate steps,making of coloured plastisols, spreading of the material,curing,foaming ets and inks and lacquers.
We used: thermometers,calipers for gelification control,weight control,thickness,adhesion, len ght, width, fabric tension,viscosity of plastisols and organosols.

6. Environmental problems ,if any.
We have some problems with the weather conditions:
Too humid = 60 %
Too dry = 20 %
Too hot= 15 %
Too cold= 5 %

4－6－10 TEMPLER S.A.

QUESTIONNAIRE TO PLASTIC COMPANY Montevideo May 19,1989

I. GENERAL

1.Name of the Company. TEMPLER S.A.

2.Date of the establishment. August 20, 1980

3.Name of the President. Gualberto Rocco

4.Location of the mill. Vera 2765 Montevideo,Uruguay

5.Capital amount. N$ 7.500.000

6.Annual sales amount by products.N$ 60.000.000 (U$S 110.000)

7.Organization and number of employees classified by department and educational background.
Production: 11 Primary school level
Administration: 2 High school level and special courses.

8.Production capacity by products.
Polyethylene film: 600.000 kg/year

9.Raw materials
a) Name of the countries of origin.
Brazil, Argentine (lineal polyethylene)

b) Annual consumption of the raw materials.
600.000 kg

II. TECHNICAL MATTERS

1. Organization, number of personnel and list of equipment (both in manufacturing line and in laboratory)
Production: 11 persons
Administration: 2 persons

Machinery:
1 Vertical extrusion machine diameter 55 mm
1 Horizontal extrusion machine diameter 45 mm
1 Automatic bag making machine
1 manual sack making machines (example for fertilizers)

2. Test items and test procedures in the manufacturing process for quality control.
No.

3. Present system for quality control.
No.

4. Significant quality problems to be solved and factors delaying the solution if any.
Testing the quality of raw materials.
Physical testing of polyethylene film.

5. Test items and test procedures for quality assurance of the products.
No.

6. Environmental problems ,if any.
No.

## 4－7　今回の調査団訪「ウ」を報じる新聞記事

EL PAIS 18-5-1989

## Llegó Misión de Técnicos Japoneses

Se encuentra en nuestro país una Misión de la Agencia de Cooperación Internacional del Japón (JICA), con el objetivo de estudiar el reforzamiento, por un período de un año, del proyecto para la Mejora de la Calidad de la pulpa de celulosa y el papel, en el Uruguay, llevado a cabo oportunamente por dicha Agencia en el Laboratorio Tecnológico del Uruguay (LATU) mediante el cual se montaron instalaciones especializadas en su nueva Sede.

Asimismo se estudiará la posibilidad de realización de otro Proyecto de Cooperación Técnica, de similares características, en el área de plásticos.

Durante su permanencia en el Uruguay, dicha Misión se entrevistará con el Sr. Ministro de Industria y Energía, Dr. Jorge Presno; autoridades de las Asociaciones de Fabricantes de Papel y de Industrias del Plástico, y efectuará visitas a algunas fábricas de procesamiento de plásticos.

EL DIA 18-5-1989

# *Misión japonesa reforzará proyectos de cooperación*

## Procuran mejoras en papel, celulosa y en área de plásticos

Se encuentra en nuestro país una Misión de la Agencia de Cooperación Internacional del Japón (JICA), con el objetivo de estudiar el reforzamiento, por un período de un año, del proyecto para la mejora de la Calidad de la pulpa de celulosa y el papel, en Uruguay, llevado a cabo oportunamente por dicha Agencia en el Laboratorio Tecnológico del Uruguay (LATU) mediante el cual se montaron instalaciones especializadas en su nueva sede.

Asimismo se estudiará la posibilidad de realización de otro Proyecto de Cooperación Técnica, de similares características, en el área de plásticos.

Durante su permanencia en Uruguay, dicha Misión se entrevistará con el ministro de Industria y Energía, Jorge Presno; autoridades de las Asociaciones de Fabricantes de Papel y de Industrias del Plástico, y efectuará visitas a algunas fábricas de procesamiento de plásticos.

### Firman documentos

Mañana, a la hora 16, se firmará, en el local de Galicia 1133, los documentos respectivos estableciendo el reforzamiento del proyecto de pulpa de celulosa y papel, y el estudio de factibilidad de un proyecto en el área de plásticos.

Suscribirán los documentos el jefe de la misión japonesa, Sr. Kentaro Hayashi y el director general del Ministerio de Industria y Energía, Rafael Noboa.

EL PAIS 20-5-1989

# Misión Japonesa Firma Convenios de Apoyo a LATU

*Misión japonesa con autoridades nacionales.*

Se encuentra en nuestro país una Misión de la Agencia de Cooperación Internacional del Japón (JICA), con el objetivo de estudiar el reforzamiento, por un período de un año, del proyecto para la Mejora de la Calidad de la pulpa de celusosa y el papel, en el Uruguay, llevando a cabo oportunamente por dicha Agencia en el Laboratorio Tecnológico del Uruguay (LATU) mediante el cual se montaron instalaciones especializadas en su nueva Sede.

Asimismo se estudiará la posibilidad de realización de otro Proyecto de Cooperación Técnica, de similares características, en el área de plásticos.

Durante su permanencia en el Uruguay, dicha Misión se entrevistará con el Sr. Ministro de Industria y Energía, Dr. Jorge Presno; autoridades de las Asociaciones de Fabricantes de Papel y de Industrias del Plástico, y efectuará visitas a algunas fábricas de procesamiento de plásticos.

**FIRMAN DOCUMENTOS**

Ayer a la hora 16, se firmó en el local de Galicia 1133, los documentos respectivos estableciendo el reforzamiento del proyecto de pulpa de celulosa y papel, y el estudio de factibilidad de un proyecto en el área de pásticos.

Suscribieron los documentos el Jefe de la Misión japonesa, Sr. Rentaro Hayashi y el Director General del Ministerio de Industria y Energía, Dr. Rafael Noboa.

## 4－8　A1フォーム／A4フォーム Signed Copy

Form A1

# TECHNICAL COOPERATION BY THE GOVERNMENT OF JAPAN

## PROPOSAL

By the Government of the Oriental Republic of Uruguay

for an expert, i. e., corrugated sheet and box making

to the Government of Japan.

*Notes.*– This form has been devised for the general guidance of the Government agencies concerned (JAPAN) in order to facilitate the supply of relevant information and data necessary to afford an adequate appreciation of the nature of the technical co-operation required. The careful completion of this proposal form will avoid much reference back and lead to speedier action.

| | |
|---|---|
| 1. Back ground Information<br>This section should show as precisely as possible the general nature of the project for which the expert is required, stating whether it comes within the Government's development programme. It is important to indicate whether the project is a new enterprise or whether it was started previously. In the latter case, any assistance received under other technical co-operation programmes (e.g. under United Nations auspices) should be stated. With regard to industrial enterprises, some impression of the size is important and the output and number of workers to be employed are useful indications. The type of process, make and age of industrial or scientific equipment with which the expert will be concerned should be specified. In the case of academic establishments, it is an advantage to know the number of annual intake of students, their level of attainment, numbers and status of existing staff and details of any research facilities and the level of research being undertaken (Copies of brochures, annual reports, financial statements, calendars, syllabus of instruction etc. should be attached where applicable). | Through the Pulp and Paper Quality Improvement Project held between JICA and LATU from 1981 to 1986 a specialized laboratory was established in LATU. Nowadays the facilities are intensively used as central laboratory of the Uruguayan pulp and paper industry, as well as giving advice and support to exporters (mainly using corrugated boxes) and local users of paper and board products.<br>For the above mentioned reasons and as most of uruguayan exports are being made in corrugated boxes that must withstand the stresses of charge, discharge, warehousing and transportation under usually humid conditions, it would be useful to receive and expert in the field of corrugated sheet and box making.<br>This request is presented based on the minutes of discussions on the aftercare programme for the japanese technical cooperation on the pulp and paper quality improvement project in the Oriental Republic of Uruguay signed on May 19, 1989 between the Japanese Aftercare Survey Team and the uruguayan authorities concerned. |
| 2. Specification for the post.*<br>(*a*) post title | Expert in corrugated sheet and box making. |
| (*b*) duties for which the expert will be responsible.<br>These should preferably be listed, and it is important to give as much detail as possible. | Guidance and advice on corrugated sheet and box making. |
| (*c*) authority to whom expert will be responsible. | Technological Laboratory of Uruguay (LATU). |

* It is essential that full particulars should be given. If the space provided is inadequate, they should be given on a separate sheet.

| | |
|---|---|
| 2. Specification for the post (*Cont'd.*)<br>(*d*) Qualification and experience required and approximate age limits | Experience in waterproof corrugated sheet and boxes if possible. Age to be determined by JICA. |
| (*e*) number of personnel required. | One (1). |
| 3. In the case of continuous projects, give name and particulars of understudy or counterpart who is to work with the expert | Ing. Fernando Stotz (chief of Section Pulp and Paper).<br>Ing. Rodolfo Montañez (researcher of Section Pulp and Paper).<br>Ing. Raûl de Castro (researcher of Section Pulp and Paper).<br>Sr. Dilvar Silva (maintenance technician). |
| 4. Terms and conditions of appointment:<br>(*a*) duration | One (1) month. |
| (*b*) actual place of employment, nearest town and post office | LATU, Montevideo. |
| (*c*) *if living accommodation to* be provided, state whether furnished or unfornished, and whether suitable for married man with family: | Will be provided but taking into account local conditions and financial possibilities of Uruguayan authorities concerned. |
| (i) daily allowance for food if accommodation only provided | No provision. |
| (ii) daily rate for accommodation and food if neither are provided in kind | No provision. |
| (*d*) daily and nightly rates of subsistence payable when away from base on duty | No provision. |
| (*e*) are costs of internal travel paid or car provided? | Car and fuel are provided, but not travel allowance. |
| (*f*) what leave arrangements are suggested? | |
| (*g*) extent to which free hospital and medical treatment is to be provided for the expert and his accompanying dependents, if any | In accordance with the regulations applied to Uruguayan Government Officials. |
| (*h*) shall the expert be exempted from the payment of income tax and charges of any kind imposed on or in connection with any allowances to be remitted from overseas? | Yes. |
| (*i*) (i) shall the expert be exempted from the payment of customs duties and charges of any kind imposed on or in connection with the importation of equipment, machinery, materials and medical supplies as well as personal and household effects belonging to the expert and his family, *including one refrigerator*, one sewing machine, one radio and other electrical appliances? | Articles N° 46 and N° 47 for special mission, of Decree N° 99/986, dated Feb. 13, 1986, will be applied. |
| (ii) In case a car is not provided to the expert by the host government, shall the expert be exempted from the payment of customs duties and charges of any kind imposed on or in connection with the importation of a car? | Car and fuel are provided. |

| | |
|---|---|
| **4. Terms and conditions of appointment (*Cont'd.*)** | In accordance with the law and regulations in force in the Oriental Republic of Uruguay, the Government of the Oriental Republic of Uruguay undertakes to bear claims if any arises against the Japanese expert resulting from, ocurring in the course of, or otherwise connected with the discharge of their official functions in the Oriental Republic of Uruguay (*) |
| (*j*) does host government undertake to indemnify expert inrespect of damages awarded against him for actions performed in the course of his official duties? | |
| (*k*) approximate date on which the expert is required to arrive in receiving country | Between January and March 1990. |
| (*l*) any other information | - |
| **5. Previous steps, if any, to fill the post:** | |
| If any previous attempt has been made to fill the post from any external source (UN Specialised Agency or other) please indicate: | - |
| (*a*) to whom proposal was addressed, with date | - |
| (*b*) result or present stage of negotiations | - |
| (*c*) are other experts working in this area in associated projects or have there been experts working in this field previously? If so, are any reports by these experts available? | - |
| **6. Correspondence:** Name, postal and telegraphic address of official to whom correspondence regarding this proposal should be forwarded | Enrique D. Bia.<br>Laboratorio Tecnológico del Uruguay (LATU).<br>Avda. Italia 6201, Montevideo, Uruguay. |

Signed .....

*Date:* 15/5/85

on behalf of the Government of .....

(*) except for those arising from the wilful misconduct or gross negligence of the Japanese expert.

Form $A_1$

# TECHNICAL COOPERATION
# BY THE GOVERNMENT OF JAPAN

## PROPOSAL

By the Government of the Oriental Republic of Uruguay

for an expert, i. e., installation of environmental testing chambers

to the Government of Japan.

*Notes.*– This form has been devised for the general guidance of the Government agencies concerned (JAPAN) in order to facilitate the supply of relevant information and data necessary to afford an adequate appreciation of the nature of the technical co-operation required. The careful completion of this proposal form will avoid much reference back and lead to speedier action.

| | |
|---|---|
| 1. Back ground Information<br>This section should show as precisely as possible the general nature of the project for which the expert is required, stating whether it comes within the Government's development programme. It is important to indicate whether the project is a new enterprise or whether it was started previously. In the *latter case, any assistance* received under other technical co-operation programmes (e.g. under United Nations auspices) should be stated. With regard to industrial enterprises, some impression of the size is important and the output and number of workers to be employed are useful indications. The type of process, make and age of industrial or scientific equipment with which the expert will be concerned should be specified. In the case of *academic establishments, it* is an advantage to know the number of annual intake of students, their level of attainment, numbers and status of existing staff and details of any research facilities and the level of research being undertaken (Copies of brochures, annual reports, financial statements, calendars, syllabus of instruction etc. should be attached where applicable). | Through the Pulp and Paper Quality Improvement Project held between JICA and LATU from 1981 to 1986 a specialized laboratory was established in LATU. Nowadays the facilities are intensively used as central laboratory of the Uruguayan pulp and paper industry, as well as giving advice and support to exporters (mainly using corrugated boxes) and local users of paper and board products.<br>For the above mentioned reasons and as the properties tested in the laboratory are very close dependent on the moisture content of the materials is extremely necessary the installation of very precise environmental chambers which allows to conduct the tests in the required conditions of temperature and humidity.<br>This request is presented based on the minutes of discussions on the after care programme for the japanese technical cooperation on the pulp and paper quality improvement project in the Oriental Republic of Uruguay signed on May 19, 1989 between the Japanese Aftercare Survey Team and the uruguayan authorities concerned. |
| 2. *Specification for the post.** (*a*) post title | Expert in environmental testing chambers installation. |
| (*b*) duties for which the expert will be responsible. These should preferably be listed, and it is important to give as much detail as possible. | Guidance and advice on:<br>1) installation<br>2) maintenance |
| (*c*) authority to whom expert will be responsible. | Technological Laboratory of Uruguay (LATU). |

* It is essential that full particulars should be given. If the space provided is inadequate, they should be given on a separate sheet.

| | |
|---|---|
| 2. Specification for the post (*Cont'd.*)<br>(*d*) Qualification and experience required and approximate age limits | Experienced in the field of environmental testing chambers installation.<br>Age to be determined by JICA. |
| (*e*) number of personnel required. | One (1). |
| 3. In the case of continuous projects, give name and particulars of understudy or counterpart who is to work with the expert | Ing. Fernando Stotz (chief of Section Pulp and Paper).<br>Ing. Rodolfo Montañez (researcher of Section Pulp and Paper).<br>Ing. Raúl de Castro (researcher of Section Pulp and Paper).<br>Sr. Dilvar Silva (maintenance technician). |
| 4. Terms and conditions of appointment:<br>(*a*) duration | One (1) month. |
| (*b*) actual place of employment, nearest town and post office | LATU, Montevideo. |
| (*c*) if living accommodation to be provided, state whether furnished or unfornished, and whether suitable for married man with family: | Will be provided but taking into account local conditions and financial possibilities of Uruguayan authorities concerned. |
| (i) daily allowance for food if accommodation only provided | No provision. |
| (ii) daily rate for accommodation and food if neither are provided in kind | No provision. |
| (*d*) daily and nightly rates of subsistence payable when away from base on duty | No provision. |
| (*e*) are costs of internal travel paid or car provided? | Car and fuel are provided, but not travel allowance. |
| (*f*) what leave arrangements are suggested? | |
| (*g*) extent to which free hospital and medical treatment is to be provided for the expert and his accompanying dependents, if any | In accordance with the regulations applied to Uruguayan Government Officials. |
| (*h*) shall the expert be exempted from the payment of income tax and charges of any kind imposed on or in connection with any allowances to be remitted from overseas? | Yes. |
| (*i*) (i) shall the expert be exempted from the payment of customs duties and charges of any kind imposed on or in connection with the importation of equipment, machinery, materials and medical supplies as well as personal and household effects belonging to the expert and his family, including one refrigerator, one sewing machine, one radio and other electrical appliances? | Articles N° 46 and N° 47 for special mission, of Decree N° 99/986, dated Feb. 13, 1986, will be applied. |
| (ii) In case a car is not provided to the expert by the host government, shall the expert be exempted from the payment of customs duties and charges of any kind imposed on or in connection with the importation of a car? | Car and fuel are provided. |

| | |
|---|---|
| 4. Terms and conditions of appointment (*Cont'd.*) | |
| (*j*) does host government undertake to indemnify expert inrespect of damages awarded *against him for actions* performed in the course of his official duties? | In accordance with the law and regulations in force in the Oriental Republic of Uruguay, the Government of the Oriental Republic of Uruguay undertakes to bear claims if any arises against the Japanese expert resulting from, ocurring in the course of, or otherwise connected with the discharge of their official functions in the Oriental Republic of Uruguay (*) |
| (*k*) approximate date on which the expert is required to arrive in receiving country | Between January and March 1990. |
| (*l*) any other information | - |
| 5. Previous steps, if any, to fill the *post:* | |
| If any previous attempt has been made to fill the *post from any external* source (UN Specialised Agency or other) please indicate: | - |
| (*a*) to whom proposal was addressed, with date | - |
| (*b*) result or present stage of negotiations | - |
| (*c*) are other experts working in this area in associated projects or have there been experts working in this field previously? If so, are any reports by these experts available? | - |
| 6. *Correspondence:* | |
| Name, postal and telegraphic address of official to whom correspondence regarding this proposal should be forwarded | Enrique D. Bia.<br>Laboratorio Tecnológico del Uruguay (LATU).<br>Avda. Italia 6201, Montevideo, Uruguay. |

Signed .....

*Date:* 15/5/89 on behalf of the Government of .....

(*) except for those arising from the wilful misconduct or gross negligence of the Japanese expert.

Form A4

# TECHNICAL COOPERATION BY THE GOVERNMENT OF JAPAN

## PROPOSAL

By the Government of ....the Oriental Republic of Uruguay..... to the Government of Japan for the supply of equipment

*Notes.*－(1) This form has been devised for the general guidance of co-operating countries in order to facilitate the supply of relevant information and data necessary to afford an adequate appreciation of the nature of the technical assistance required. The careful completion of this proposal form will avoid much reference back and lead to speedier action.
(2) The requisite number of copies of the Form A4 duly endorsed by the appropriate Foreign Aid Department of the requesting government should be forwarded to the donor government concerned through the appropriate channels.
(3) The equipment to be supplied by the Government of Japan will become the property of the requesting government upon receipt of the shipping documents through the Japanese Embassy. Since the equipment is supplied on C.I.F. basis, it is requested that the recipient government will meet·
(a) customs duties, internal taxes and other similar charges, if any, imposed in respect of the equipment, and
(b) expenses necessary for the transportation, installation, operation and maintenance of the equipment.

| | |
|---|---|
| 1. **Background Information**<br>Please describe as concisely as possible the general outlines of the project for which the equipment is required, indicating whether the latter is (*a*) for use by an expert in the performance of his duties (*b*) for a training scheme of institution or (*c*) for a research institution. If either (*b*) or (*c*) please say whether the equipment is for the establishment of a new institution or the expansion or re-organisation of an existing one (e.g., by the provision of a new department, etc.). The name and exact location of the institution, its approximate cost and the authority responsible for it should be stated. Where appropriate details should be given of the availability of any services required for the operation of the equipment. This would include operation by electricity (i.e. type of current, periodicity, voltage and any variations, phases, frequency etc. and if D.C. is the only current available please give full details), water reticulation or steam gas etc. Details of similar equipment already in use should be given. | Through the Pulp and Paper Quality Improvement Project held between JICA and LATU from 1981 to 1986 a specialized laboratory was established in LATU. Nowadays the facilities are intensively used as central laboratory of the uruguayan pulp and paper industry, as well as giving advice and support to exporters and local users of paper and board products.<br>Accordingly the installations must be reinforced in the aspects regarding to conditioning of samples, colour measurement, etc.<br>This request is presented based on the minutes of discussions on the aftercare programme for the Japanese technical cooperation on the Pulp and Paper Quality Improvement Project in the Oriental Republic of Uruguay signed on May 19, 1989 between the Japanese Aftercare Survey Team and the uruguayan authorities concerned. |
| 2. **Description of equipment required.**<br>Please give a full description of each item and general specifications where possible. The manufacturer and estimated cost of each item if known together with details of the proposed end use of item should be given. Where applicable, give details of any special packing or tropic proofing required and indicate whether handbooks or instruction data supplied in English will suffice. If appropriate, please indicate any required priorities or phasing of deliveries and advise whether adequate facilities exist for maintenance and servicing of the type of equipment requested. (If lengthy, detailed lists should be annexed; it would be convenient to have separate annexures for (*a*) films; (*b*) books and (*c*) other equipment.) | As referred in Annex III in the Minutes of Discussions signed on May 19, 1989. |
| 3. Has this equipment request already been directed to any other Agency or country and if so to whom was it addressed and with what result? | No. |
| 4. Has the list of equipment already been discussed with representatives of the supplying country/ies? If so, please indicate what stage the discussions have reached. | Yes.<br>Final stage. |
| 5. Furnish full particulars in respect of－<br>(*a*) Consignee;<br>(*b*) Official to receive documents and enquiries; and<br>(*c*) Clearing agent at port of entry. | Ing. Enrique D. Bia. President.<br>LATU.<br>Avda. Italia 6201, Montevideo, Uruguay. |

| | |
|---|---|
| 6. **Where equipment is required for use by an expert**<br>Please indicate–<br>(*a*) The country or agency from which the expert has been requested or obtained.<br>(*b*) His duties and length of secondment (a reference to the relative Form A. 1 will suffice when the expert is being provided by the country to whom the equipment request is addressed).<br>(*c*) What use is proposed for the equipment when the expert's period of secondment terminates?<br>(*d*) By what date is the equipment required? | After care programme for the Japanese Technical Cooperation in the pulp and paper quality improvement project. |
| 7. **Where equipment is required for Training or Research Institutions**<br>Please indicate–<br>(*a*) Nature and standard of training or research to be undertaken<br>(*b*) Total number of students to be accommodated from within the country or from elsewhere in the Region, the qualifications for admission, the duration of courses, and the annual output of trainees<br>(*c*) Whether there is already a similar institute(s) in existence in the country. If so, please give details<br>(*d*) Whether buildings are already available. If not has construction started and when is it expected to be completed?<br>(*e*) Whether qualified staff to handle the equipment has been recruited or is proposed to be recruited locally.<br>If not is it proposed:–<br>(*i*) to recruit foreigners under aid-programmes?<br>(ii) to train locally recruited personnel abroad in handling equipment? (the reference numbers of any Forms A. 1 or A. 2 relating to such requests should be quoted)<br>(*f*) Taking into account the answers to (*d*) and (*e*) above, what is the date by which the equipment is required and the date on which training or research work is to commence.<br>(*g*) Whether any assistance in drawing up the Scheme has been obtained from outside experts? (Any specialist reports or Government surveys (e.g., Educational Committee Reports, etc.), bearing on the request should be provided if possible) | Central Laboratory of the pulp and paper industry.<br>–<br>Nil.<br>Building already available.<br>Qualified staff available.<br>Before March, 1990.<br>Japanese Expert. |
| 8. **Correspondence**<br>Name, Postal and Telegraphic Address of official to whom correspondence regarding this proposal is to be forwarded | Enrique D. Bia<br>Laboratorio Tecnológico del Uruguay (LATU)<br>Avda. Italia 6201, Montevideo, Uruguay. |

Signed .....

on behalf of the Government of .....

Date: 16/5/89

**For use only by Donor Government**

Proposal accepted/rejected/withdrawn

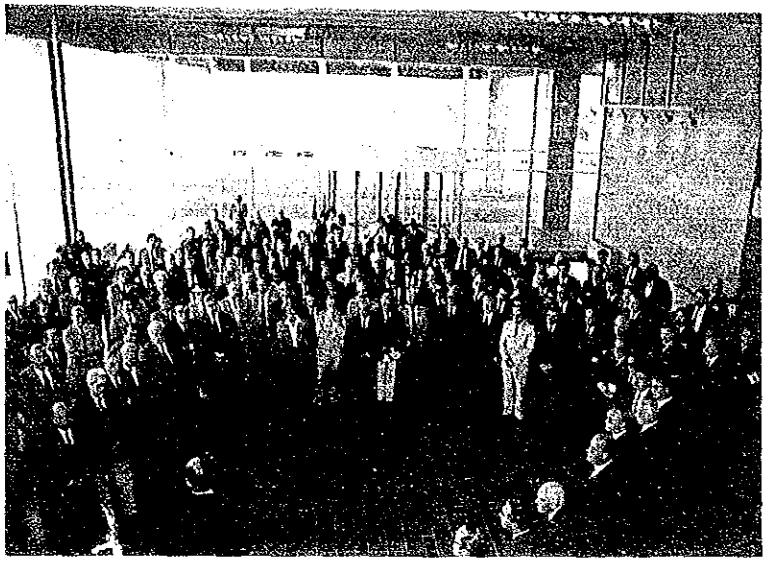
on behalf of the Department of .....

Date: .....

## 4－9　新ＬＡＴＵ開所式

4－9－1　写　真

新ＬＡＴＵ 開所式



新ＬＡＴＵ開所式
（左から3番目 サンギネッテイ大統領。　その右が Ｂｉａ理事長）

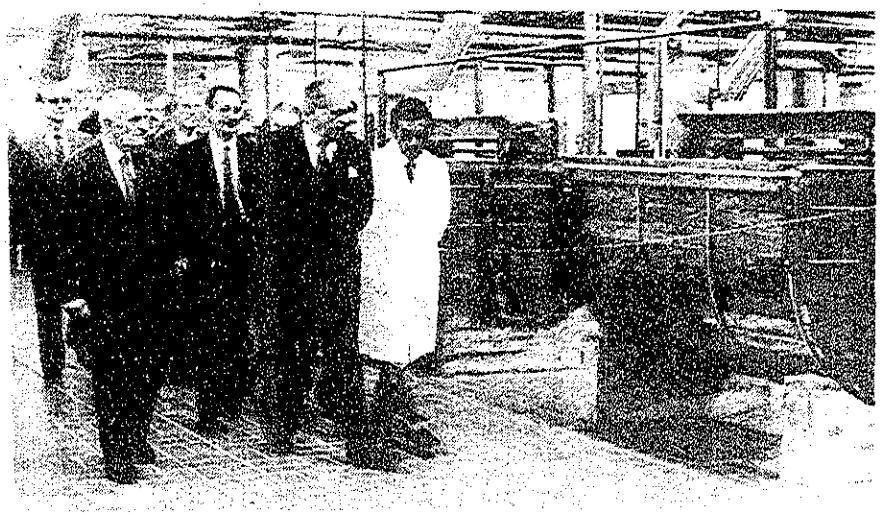
サンギネッティ大統領
紙パルプ研究室視察

"EL PAIS" (8-4-1989)





# Inauguraron Ayer el Nuevo Laboratorio Tecnológico Dotado de Modernos Equipos en Apoyo de Industrias



Fue inaugurado ayer por el Presidente de la República el complejo edilicio del Laboratorio Tecnológico del Uruguay, ubicado en Avenida Italia y Bolivia, que permitirá mejorar la calidad de los productos exportables uruguayos a través de mejores controles y la investigación tecnoiógica.

Las obras inauguradas consisten en múltiples instalaciones necesarias para servicios de laboratorios y plantas piloto que contienen materiales especiales, un acondicionamiento térmico ajustado en zonas muy amplias de trabajo, sistemas especiales de evacuación de gases tóxicos y corrosivos, iluminación artificial especial, sistemas de drenaje con tratamiento de plantas piloto, etc.

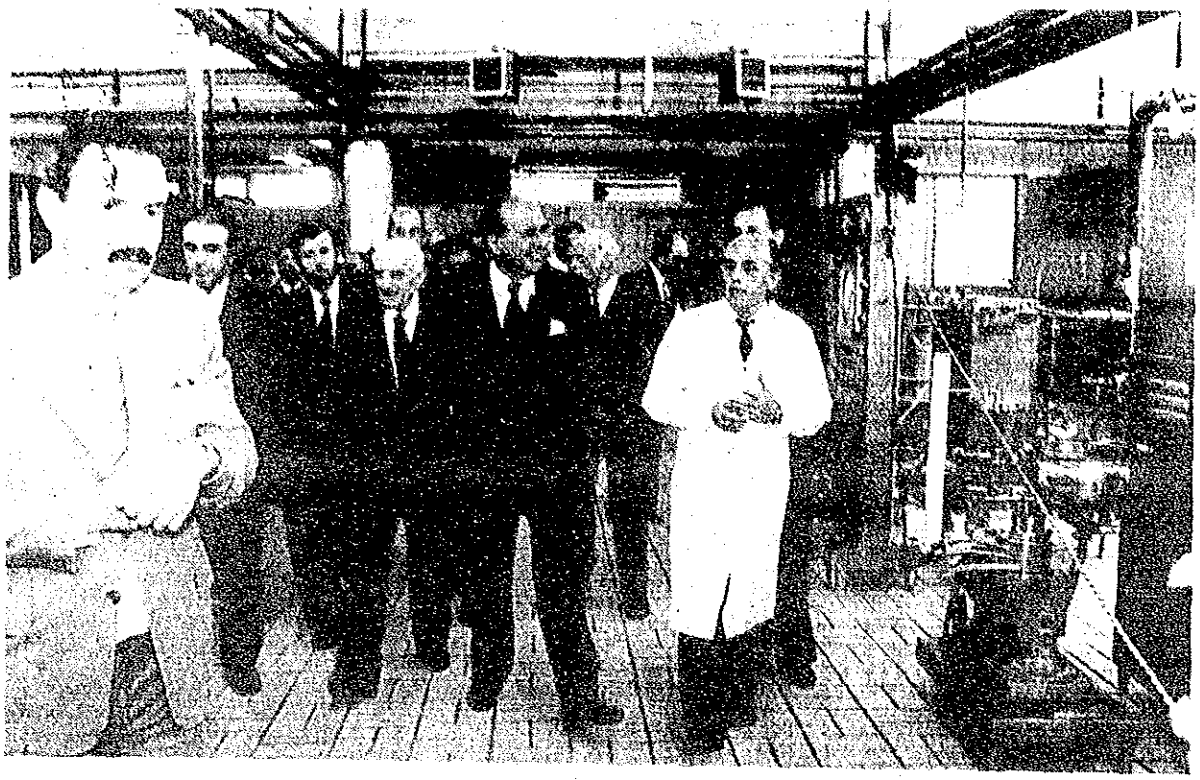
Las construcciones abarcan 20.000 m²2 y tienen sectores dedicados a los productos lácteos, productos cárnicos, frutas y hortalizas, bebidas alcohólicas fermentadas, cueros y artículos derivados, textiles, celulosa y papel, envases y materiales de empaque, metrología, aprobación de elementos de protección personal, ensayo de materiales, microbiología, biotecnología, análisis instrumental, análisis químico, alimentos importados, servicio de inspección y administración.

El acto de inauguración contó con la participación de las más altas autoridades nacionales y representantes del sector industrial privado uruguayo encabezados por el titular de la Cámara de Industrias, Néstor Cosentino, quien abrió la parte oratoria.

Cosentino destacó la realización que significa la habilitación de la nueva sede y el trabajo conjunto del sector público y privado en la consecucción de la misma, elogiando la personalidad del Director del instituto, Ing. Bía, por su perseverancia en llevar adelante al LATU a través de tantos años de actividad.

Cerrando la ceremonia, el presidente de la República, Dr. Julio Ma. Sanguinetti, señaló **"Incorporamos a la vida del país este laboratorio que es, sin duda, la puerta hacia la modernidad, la puerta hacia el siglo que viene, la puerta hacia esa exportación que, día a día nos reclama más capacidad de investigación, más capacidad técnica y que va desde todos los procesos de producción hasta su presentación y envasado"**. Por último, el Primer Mandatario subrayó asimismo la tarea del Ing. Bía al frente del instituto.

"EL DIA" (8-4-1989)



*El presidente Julio María Sanguinetti inauguró ayer la nueva sede del Laboratorio Tecnológico del Uruguay, dependiente del Ministerio de Industria y Energía, y luego recorrió las modernas y amplias instalaciones.*

"LA MAÑANA" (8-4-1989)

El Presidente de la República, Dr. Julio María Sanguinetti, junto al Ministro de Industria y Energía, Dr. Jorge Presno, y el titular del LATU, Ing. Enrique Bia, proceden a cortar la cinta dejando de esa manera oficialmente inaugurada la nueva planta del mencionado laboratorio.

"LA MAÑANA" (8-4-1989)

# Ing. Bía: una obra para todos

Ing. Enrique Bía

"Me impresiona a mí mismo, porque cuando empezamos nunca pensamos que íbamos a terminar en esto" dijo a La Mañana el Ing. Enrique Bía, titular del Laboratorio Tecnológico del Uruguay, que ayer inauguró sus nuevas instalaciones ubicadas sobre Avenida Italia.

Sostuvo que "en total se trata de 16.000 metros cuadrados edificados, que además cuentan con la posibilidad de que en el futuro se les haga una ampliación".

El Ing. Bía destacó que "este momento de la inauguración, lo que nos brinda es la satisfacción de ver que lo que hicimos no quedó en papeles, sino que se ha transformado en una realidad".

## OBRA PARA EL PAIS

Destacó que "esta obra no es para los que trabajamos en ella, ni para ningún partido ni agrupación en particular. Esta es una obra para el país, que éste la necesitaba para poder seguir ampliando sus exportaciones de productos elaborados".

Afirmó que "este laboratorio permite poner a Uruguay en igualdad de condiciones a la hora de competir en el mercado internacional".

Subrayó que "permitirá no sólo lograr buena calidad de los productos, sino una uniformidad. Ya no habrá partidas de una calidad y otras de una diferente".

Interrogado sobre la inversión que demandó esta nueva planta del LATU, dijo que "en la infraestructura se invirtieron más de 8 millones de dólares".

En cuanto al equipamiento dijo que "se adquirió con un préstamo del Banco Mundial que fue de 6.800.000 dólares".

El Ing. Bía indicó que en estos momentos en el LATU trabajan unos 35 técnicos, personal que deberá ser reforzado ahora que se ha habilitado la nueva planta.