Industrial Transfer Erection & Maintenance

INDUSTEAM NEWSLETTER APRIL 2018



## A WORD FROM THE PRESIDENT

There are projects that mark the existence of a company. Running in April, starting of the power plant produced by Albioma on the site of Galleon 2 In Martinique Carribean Island will be effective. This is the culmination of almost two years of work Piping Department and the Eriem Engineering office. The conduct of this project, by its size, the volumes of work put into effect, the difficulties inherent in its situation is the shining proof of Industeam's ability to manage projects large scale. So I decided that this issue of this newsletter would be exclusively dedicated. We can all be legitimately proud of this realization and keep this newsletter as proof of the quality of the work provided by the collaborators of Industeam.

We are already at the end of the first quarter of this new Year of activities for our businesses. Its start is promising even if at the moment our catches the control panel are slightly indented compared to our objectives. This is mainly due to the shift in the decision making of our customers. We have great opportunities to take orders very soon. Some information that seems to me Important.

I saw a significant improvement in the management of our business between the end of 2017 and that of the first quarter. I consider that this is the consequence of the taking awareness of the majority of you on the imperious need to refocus on the values we and have made the success of Industeam since the its creation. It is essential not to let go of our efforts and to consider that our modes of operation are a permanent challenge to meet the best expectations of our customers. The rigor of driving of action plan 2018 under the responsibility of Hugues Antoine (organization of studies), Eric Hühn (skills) and Beatrice Delhotal (resource management and recruitment) is essential to the future of Industeam.

An important new development potential of Industeam. Our group has been years a recognized supplier in the aerospace sector and we count on many accomplishments Stélia Aerospace and its Moroccan subsidiaries or Its front-line suppliers. Now Industeam is also likely to carry out projects directly for the Airbus Mother house. To date, we had only realized one project for the Airbus Composite Workshop in Nantes Subcontracting of the company ThyssenKrupp Engineering. Currently Eriem is working on the encryption of important projects which are managed by Airbus Toulouse.

Other good news the certification in 15085 obtained by Industeam Nord which validates our operating welding procedures in the railways sector and empowers us to work on broader areas such as Eurotunnel.

As you may have read or heard, the Industrial Sector has been a real embellishment in France for some month. We have been confronted for many years to project shortages. What we are waiting for today it is the shortage of quality employees to ensure the volumes that appear before us. We must be proud of the activity and success of Industeam as well as our trades. We need to know and attract as many new colleagues as possible in our Companies – We realized 47 hirings in 2017 and 28 in 2018 (18 CDI and 10 CDD). I remind you that the challenge opened in 2017 to sponsor new arrivals at Industeam is still topical. We let us now join the sponsorship of new apprentices that you will know to convince of the interest of us join; many of you have been able to discover the China, India, Brazil, the USA, Mexico and many others places and practice their profession. Then I ask you to be the first ambassadors of Industeam to the those who seem willing to share our values and encourage us to join.

> THIERRY FRANCESCHETTI INDUSTEAM'S PRESIDENT

## PRESENTATION OF THE **ALBIOMA PROJECT** GALION 2 - MARTINIQUE ISLAND

The Galion 2 plant in Martinique is a project managed by the Albioma company with which Industeam has already carried out projects in the French Maritime Departments and Territories and in particular in Guadeloupe.

Galion 2 is the first 100% Biomass Power Plant realized by Albioma in Martinique that excludes fossil fuel combustion and designed in accordance with the most stringent standards and environmental regulations (use of sugar cane residues -Bagasse-and wood pellets).

## The parts of this project allocated to Industeam have undergone 2 phases :

- The first concerned the Energy Production part for which Industeam carried out all the studies and realization of the process piping (High Pressure Steam, Low Pressure steam, water supply...), turbine room, the steam connection on the turbine, the installation of supply pumps, tanks, fire networks, smoke treatment network...
- The second phase concerned the connection equipment between the Power Plant and the Sugar Production Plant to which it is attached. Firstly to set up a steam pipping line between the Power Plant and the Sugar Production Plant to supply the machines that crush the sugar cane and secondly to realize a conveyor to link the Sugar Production Plant to the Power Plant boiler to supply it with bagasse (crushed sugar cane residue) acting as fuel for this boiler. The steam supply to the Sugar Plant started on April 11th 2018 to coincide with the beginning of the Sugar Cane harvesting of the cane on Martinique.

The piping supports as well as the framework and conveyors were made by our usual subcontractors in Romania and Slovakia.

Tendering, Contracting, , project management, Manufacturing (pre fabrication) Shipping, Site Installation and Technical Documentation was undertaken by Jean Luc Franceschetti (Project Leader)'s team assisted by Julien Desmaret.

Technical and logistical support was provided by Frederic Schmitt for quality control and preparation for transport.

Roman Bourguignon provided documentary management and procurement.

Studies concerning water treatment, Sugar Plant connection (MB-BP steam), conveyor and frame structure support were provided by Rafael Consolo, Jerome Mitka and Eric Rolin.

Prefabrication supervision and preparation of containers was provided by Juan Garrido in Thionville.

The assembly of the Sugar Plant conveyor and its support frame was carried out under the leadership of David Fiorica



assisted by Patrice Luce for adjustment and Surveyance.

On site project management was carried out by Jean Luc Franceschetti assisted by Maxime Holin as foreman.

The Industeam teams have been on the site of this new Biomass plant since January 2017 (with on 30 people on site).

The teams formed by JL Franceschetti between the Industeam supervisors, the Romanian teams that work regularly on our sites and local contractors found the necessary cohesion and competitiveness to carry out this project and meet the deadlines for the final client.

Our visit to this site for the termination of the Project and temporary delivery last week enabled us to verify our client's satisfaction regarding Industeam's performance and we can display legitimate pride in the quality of this project which is the largest in volume ever undertaken by Industeam.

Industeam 3D Model at the end of engineering studies



#### Aerial view of Power Plant and Sugar Plant on March 17, 2018



#### General view of Power Plant and Sugar Plant on April 6, 2018





# **1 - ENERGY PRODUCTION**

Turbine and Connection of High Pressure Steam Piping line



Turbine's Floor



Engines Room step 1





## Cooling High and Low Pressure



### De-gasing



### Tanks and exchangers





Pumps



## Cooling for Alternator



### Chemical tanks on skids



### Cooling for Alternator



### Pipes for fumes exhausting compressors



Fire networks and pipes for Engine's Room



### **Roof exhausting**



Water Treatment







# **2 - CONNECTION POWER PLANT SUGAR PRODUCTION PLANT**

#### Middle Pressure Steam Piping Line and Bagasse Conveyor









## **THE PROJECT IN A FEW FIGURES**

### **KEY DATES**

May 27, <b>2016</b>	Order
October 17, <b>2016</b>	Starting of site works
December 14, <b>2017</b>	End of phase 1
January 8, <b>2018</b>	Starting of phase 2 site works
4th week of <b>2018</b>	Starting ignition of the boiler
5th week of <b>2018</b>	Steam turbine starting
April 6, <b>2018</b>	End of Industeam project

#### Total Project Duration : 22 months

#### Number of Inches

Total project: 40	100	in
Phase 2: 4	200	in
Phase 1:35	900	in

#### Site working hours

Total project: 50	000	h
Phase 2: 8	000	h
Phase 1:42	000	h

#### Weights of supports + pipes

Phase 1:2167	
Phase 2: 48 1	Γ
Total project:264 1	

#### Numbers of Containers 40'

Phase 1:3	5
Phase 2:(piping)	5
Conveyor and Steel Structure: 1	2
Total project:5	2

