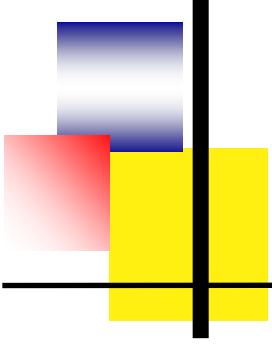


PENA GROUP
PRESENTS ITS SOLUTIONS FOR

**Quality Control in Recycling
Household Residual Waste**

THURSDAY, October the 16th 2008

Saint Jean d'Ilac (33)



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COMMUNIQUE

How can we bring our consumer society to be sustainable?

How can we contribute in keeping our planet viable for our children?

Garbage recycling is an inescapable way to reach the following common goals:

- It allows completing the « cycle of material » within the human community and its associated ecosystem, as nature already does for water, carbon or nitrogen.
- It allows raw materials conservation
- It also allows creating local jobs in a sustainable development way.

Nowadays these topics have been assimilated by politics and represent people wishes.

However, the methods to reach those goals are scarce and generally poorly efficient.

It is today **Pena Group**'s vocation (including AMENDOR, PENA METAUX, PENA ENVIRONNEMENT and PENA BRASIL) to set up efficient tools to recycle waste generated by our civilisation.

From this perspective and on the basis of our daily recycling operation, we positioned ourselves so as to sell industrial means assemblages, in the form of turnkey plant, to communities and industries that need it.

Nowadays, we also provide staff training and know-how to achieve true industrial recycling.

It is essential that the new raw material obtained through garbage recycling be a truly useful product for industrials and farmers. Thus it must be provided with the quality criteria that we find in original raw material. The purpose is to sustain and increase channels by increasing the consumption of recycled products.



COMMUNIQUE

Our know-how as a recycling business operator and our research and development steadiness lead us to discover needed technologies for the recycling society of the future.

Household waste is a real mine of exploitable products:

- **Organic matters :**

Our technology allows a **quick sanitizing composting processing of material** (1 month) into **high quality** organic mass. The effect of compost has been proven through field tests. **It allows a significant reduction of water and fertilizer flow and thus of the impact of agricultural activity.**

- **Combustible material :**

The polyethylene and polypropylene are plastics whose chemical composition is more or less alike the wax candles one. Therefore they are excellent fuels that do not generate nuisances.

Our expertise enables us to select such products so as to generate **clean fuel** used in many industrial boilers.

We offer to apply these technologies to complete the cycle of materials, and to give **true second life to garbage.**

We took up this bet. Today we offer our customers the opportunity to benefit from our achievement.



PRESENTATION OF PENA GROUP

The PENA firm, a major contributor in recycling for over 50 years

1955 : Creation of Gilbert Pena Firms - Metals recuperation and recycling

1990 : Marc PENA takes back the family business ; confirmation of environment fields diversification

1999 : Construction of the new site called SAINT JEAN **ADONIS®** platform

2001 : Creation of **GESTECO**

2001 : APV granted for our compost

2001 : Creation of a professional waste reception centre for tradesmen use

2002 : Crops Tests for corn

2003 : Development of the **ADONIS EVOLUTEAM®** composting technology. PENA ENVIRONMENT approaches communities to sell such facilities.

2003 : **ADONIS®** composting obtained **the approval of the French Ministry of Agriculture**

2005 : Creation of **AMENDOR SAS** offering to deliver turnkey factories using the **ADONIS EVOLUTEAM®** technology

2005 : Starting of the CORIS activity : production of alternative fuel out of DND.

2006 : Delivery of our first factory in **Montauban**

2008 : Creation of **PENA ENVIRONNEMENT BRASIL** and international expansion

2008 : Launching of three new composting plant.

2009 : Delivery of five factories at least, in France



PRESENTATION OF PENA GROUP

Our C.E.O : Marc PENA

A post-secondary preparatory school in Agronomy gave **Marc PENA** solid knowledge in physics, chemistry and botanic, disciplines for which he has a passion.

Aged 26 and after 2 years spent in South America, Marc PENA relays his father and in 1990 creates the **PENA Metals** and **PENA Environment** entities.

1994 : Deputy President of the **National Union** of Non-Ferrous Metal

1994 : Member of the Boards of Directors of the association for the study of world plants

1995 : Presidency of **FEDEREC SOUTH WEST ATLANTIC**, regional union of recycling companies.

1998 : Deputy Chairman of the Departmental Environment Committee

1998 : He creates alongside the IEFGE training centre, the BAC +2 "**responsible for operation of recycling industries**" training, nowadays taught at the "Maison de la Promotion Sociale" in ARTIGUES near BORDEAUX.

1999 : Founding member of **PRAXY SA**, national network of certified professionals for the overall management of waste, whose director is Marc PENA.

2000 : He is designated as one of the year 2000 top ten managers by "Objective Aquitaine" and receives the Environmental Manager trophy of the year.

2004 : Marc PENA becomes the National President of **VALORDEC** which is under control of **FEDEREC**, the National Union of businesses in waste recycling.

2007 : He represents FEDEREC and CGPME in the framework of the "Grenelle de l' Environnement" workshops.

2007 : Marc PENA presents a **nomenclature proposal for alternative fuels**

He is also member of :

- Bureau of International Recycling in Brussels (BIR)
- National Groupement of Waste and Environment SME



PRESENTATION OF PENA GROUP

PENA METAUX

SAS with a capital of : 153.000 €

Staff : 33 employees

2007 turnover : 42.879 K€

ACTIVITIES

- Collecting, trading and transporting of non-ferrous and ferrous metals (France and International).
- Metal processing: sorting, cutting, shearing, packaging.
- Transit sorting centre for banal and special industrial waste
- Transport
- Recycling of class II (DND) ultimate waste: CORIS[®] chain founded in 2005. Manufacture of alternative fuels.

CAPACITY PRODUCTION

- The capacity of the CORIS[®] ultimate waste recycling chain is currently of 10 tons per hour.
- The metal transport capacity is of 2500 tons per month.

EQUIPMENTS, FACILITIES AND MEANS OF PRODUCTION

- A 2.5 hectares registered site for environmental protection
- 8 000 square meters of industrial buildings and 250 square meters of office
- 1 plastics waste refuse disposal unit
- 1 baling press
- 1 sorting centre for industrial waste
- 1 DND shredding and granulating unit for manufacturing of substitutive fuel.
- 1 shear press brake
- Shovels and trucks

CERTIFICATION

- Environmental approach in progress



PRESENTATION OF PENA GROUP

PENA ENVIRONNEMENT

SAS with a capital of : **40.000 €**

Staff : **65 employees**

Created in : **1990**

2007 turnover : **9 757 K€**

All of the waste generated by private or public economic actors and audience is taken care of.

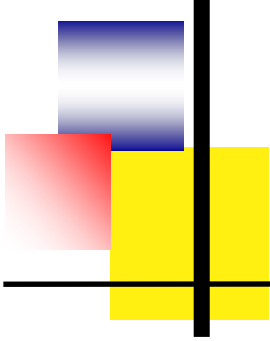
ACTIVITIES

D.N.D - Déchets Non Dangereux (non hazardous waste ; inert and non-polluting)

- Rental of containers, skips and compactors.
- Waste collection and transport.
- Selective collection
- Waste sorting for recycling
- Shredding of wood waste and of **remains from** recyclable used plastic
- Disposal and recycling in specialized branch.

D.D - Déchets Dangereux (hazardous waste)

- Identification of residues, typing of treatment procedures.
- Collecting and transporting in accordance with the European Regulation on Hazardous material on Road (**ADR**).
- Elimination and recycling by chemical or thermal means.
- Platform for the transit and grouping of Hazardous Waste (DD), toxic waste in dispersed quantities (DTQD), Special Household waste (DMS).



PRESENTATION OF PENA GROUP

ACTIVITIES

Organic Waste

- Rental of impermeable skips covered with tarpaulin
- Collection of green waste and sludge from treatment plants,
- Grinding of green waste,
- Processing of green waste, sludge from treatment plants and of the fraction of OMs that can be fermented by forced ventilation composting.
- Production of compost validated by the Ministry of Agriculture and valorised in agriculture, green spaces, nurseries...

Corporate Waste reception centre

Centre for receiving and packaging of waste mainly generated by firms.

CERTIFICATION

The platform is approved by the Adour Garonne Water Agency.

Installation registered for environmental protection. The ADONIS Eco-centre is **ISO 14001** certified by BVQI since January the 23rd of 2004.

UIC (Union of chemical industries) and MASE authorisation.

PRESENTATION OF PENA GROUP

AMENDOR

SAS with a capital of: **40.000 €**

Staff: **6 employees**

Created in: **2005**

Provisional turnover for 2008: **1,1 M€**

ACTIVITIES

- Research firm, construction and installation of composting plants and alternative fuel
- Continuous program on R&D

AMENDOR has developed the ADONIS EVOLUTEAM[®] technology which was developed by PENA ENVIRONMENT and which guarantees sanitizing products.

AMENDOR was founded at the beginning of year 2005 to valorise and develop this patent in the framework of the design, sale and installation of composting turnkey units.

For this activity AMENDOR counts on its more than 10 years daily composting practice (150t / day) that allows it to validate the choices and technical solutions offered to customers and to support them in their daily operation including in using remote management.





Our compost







Adonis Ecoluteam® Process

Pena Environment has developed an innovative and effective composting technology **ADONIS Ecoluteam®** and has set it up in our Saint Jean d'Ilzac plant.

A patent has been deposited for it which was expanded to Europe in 2004.

Our process of enclosed composting allows the control and monitoring of the fermentation and afterwards of the mixture stabilisation.

Results :

-  Reduction in the process duration : **less than 4 weeks** are needed to **develop standardized compost**.
-  A decrease of needed area that permits to integrate the project into a confined space (3000 square meters to handle 8000 tons of sludge per year).
-  **A guarantee of hygienisation** of the products : the overall mass goes over 74°C
Disappearance of human and plants pathogens.
-  Flexibility regarding the composition of the entering products (all types of organic materials can be integrated: mud, grease, screened materials).
-  **Control of nuisance towards employees, residents and environment:** air treatment through washing tower and bio-filter.
-  Manufacturing of a **quality organic amendment (compost)** that meets the **safety requirements of customers and the European standards**.

Our compost

Benefits of Adonis® composting

- ↪ With 10 tons of compost per hectare we obtain a significant **reduction in the use of chemical fertilizers**.
- ↪ **First compost approved by the French Ministry of Agriculture**.
- ↪ It permits to reduce significantly water supply and irrigation fertilizer



OUR ACHIEVEMENTS ↪

- **City Hall of Montauban** – July 2004
- **Community of communes of « Causse et Vallon de Marcillac » (12)** – December 2006
- **Agglomeration communities : Seine-Eure (27)** – May 2007
- **Community of communes of the Pays de Nuits-St-Georges (21)** – September 2007
- **Agglomeration communities of Montpellier** – December 2007
- **Departmental Syndicat Mixte of Water and Sanitation (SMDEA)** - January 2008
- **SYDETOM 66 Elne** – April 2008



Our Alternative Fuel

PREPARATION

CORIS® process aims to recycle non-hazardous waste into alternative fuel.

The sorting and grinding chain of non-hazardous industrial waste was developed in July 2005. It is a fully automated chain for the processing of non-hazardous waste into **usable alternative fuel** for industrial furnaces.



PRODUCT DESCRIPTION

Our fuel **does not contain either ferrous or non ferrous metals, it is PVC plastic free, polystyrene free, inert free.**

It is constituted by an average of:

- Paper and paperboard: 40%
- Non-chlorinated plastics: 40%
- Wood : 15%
- fabric : 5%



USE OF CORIS

- Cement
- Large industrial boilers
- Greenhouses
- Wood Kilns
- Paper factories

Our Alternative Fuels

REGULATION ↻

CORIS[®] alternative fuel **never in any way** contains waste such as:

- Substances or explosives,
- Lachrymatory products,
- Hospital waste,
- Waste from slaughterhouses,
- Asbestos waste,
- Alkaline waste (pH>12),
- Non-identified waste.

OUR ACHIEVEMENTS ↻

Mérignac (33) - 2005

SMICTOM du Penthievre-Mene (22) - February 2008

- Setting up of an **alternative fuel production** out of bulk items and out of everyday stuff coming from waste management facility.



**An objective of a 100% recycling
rate with CORIS® Process**

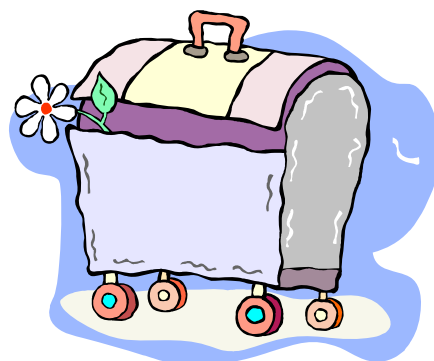
National Event

On Thursday, October the 16th 2008

**Controlling Quality in the Recycling of
Residual Household Garbage**

A second life for your garbage

**PENA Group presents its solutions
developed on the sites of
Saint Jean d'Ilac and Mérignac.**





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