

SUSTAINABILITY REPORT 2009

netika mili



SUSTAINABILITY REPORT 2009

A LETTER FROM THE PRESIDENT

and verifiable objectives.

GIULIO BONAZZI,

PRESIDENT OF

AQUAFIL S.P.A.

Once again we are placing strong emphasis on explaining and sharing our results and objectives with all stakeholders in the firm belief that the sustainability is not a result to be achieved, rather a way of thinking, a way of being, a principle the must constantly guide us. During 2009 we initiated an in-house programme designed to communicate these principles to as many of our company members as possible in order to stimulate and accelerate the achievement of the objectives set for the coming years. The positive results for the 2009 operating period were achieved against the background of a critical economic situation which continued through most of 2009. Achieving positive results in a generally unfavourable economic climate provides further confirmation that the Group continues to make the right decisions in this area. Following this path, mapped out many years ago, has taken us successfully through operating period without any significant repercussions on employment levels and has enabled us to keep results in line with previous years without any slowdown in investment. The environmental indicators monitored continuously are in line with expectations thanks mainly to the projects implemented in the previous two years which became fully operational in 2009. The energy efficiency, for example, of the trigeneration plant has been further improved and we have launched other projects aimed at improving performance even further. For the Group, 2009 was also a year of new developments. We signed an agreement with the UK investment fund Hutton & Collins who placed substantial funding at the disposal of the Group. This funding enabled three major investment projects: the Econyl sustainability project; the China project, with the planned opening of a new spinning mill at Jiaxing, near Shanghai; two photovoltaic power stations in the south of Italy.

In the pages which follow we will be providing greater details of the results and projects mentioned briefly here. What I hope will be become clear as you read this document is our commitment to continue along the path of sustainable development, a path which we believe is the only one leading to success in the future.

The publication of the third Sustainability Report by the Aquafil Group confirms our ongoing commitment to transparent business practices and the implementation of clear, documented



- 07 OUR GUIDING PRINCIPLES
- 08 ABOUT THE REPORT

11 AQUAFIL AND ITS STAKEHOLDERS

- 12 THE AQUAFIL GROUP
- 13 GROUP STRUCTURE
- 14 ITALY SLOVENIA CROATIA GEORGIA (USA) THAILAND CHINA
- 16 OUR ORGANIZATION
- 17 GOVERNANCE
- 19 THE HUTTON & COLLINS FUND
- 20 AQUAFIL AND ITS STAKEHOLDERS
- 22 GROUP ACTIVITIES
- 28 THE ECONYL PROJECT

31 A YEAR. RESULTS, ACTIONS AND PROJECTS

32	THE ECONOMY
34	THE FINANCIAL SITUATION
36	CONSOLIDATED ENVIRONMENTAL BALANCE SHEET
38	OVERVIEW OF INVESTMENTS
40	RESULTS
46	OVERVIEW OF IMPROVEMENT PROJECTS
50	COMMITMENT TO COMPANY PERSONNEL
58	AQUAFIL SYNTHETIC FIBRES AND POLYMERS (JIAXING) CO. LTD.
60	COMMITMENT TO THE LOCAL COMMUNITY
62	OVERVIEW OF THE PROJECTS FOR THE 2010-2011 PERIOD

63 GLOSSARY

"SUSTAINABILITY IS NOT A RESUITT BE ACHIEVED, RATHER A WAY OF THINKING, A WAY OF BEING, AND A PRINCIPLE THAT MUST CONSTANTLY GUIDE US".

GIULIO BONAZZI, PRESIDENT OF AQUAFIL S.P.A.

OUR GUIDING PRINCIPLES

Being constantly sensitive to the stimulus offered by Clients who make sustainability their development strategy, since we are convinced that this is the path to follow if we are to strengthen our leadership.

Making sure that our sustainable policy is concretely implemented.

Choosing Suppliers who offer the best performance in terms of Sustainability.

Establishing and strengthening a link with the Communities where the Group operates and intends to grow in the future.

Strengthening the roots the company has in the local area by paying constant attention to internal resources.

SOURCE: "THE NATURAL STEP"

THE CREATION OF CONDITIONS THAT COMPROMISE THE ABILITY OF PEOPLE TO SATISFY THEIR NEEDS

THE PHYSICAL DEGRADATION OF NATURE

THE ACCUMULATION OF SUBSTANCES PRODUCED BY THE COMPANY

THE ACCUMULATION OF SUBSTANCES EXTRACTED FROM THE EARTH'S CRUST

OUR DAILY COMMITMENT IS BASED ON FIGHTING:

ABOUT THE REPORT

THIS REPORT WAS DRAFTED AND PUBLISHED BY THE AQUAFIL GROUP IN ACCORDANCE WITH THE GLOBAL REPORTING INITIATIVE (GRI) G3 GUIDELINES FOR SUSTAINABILITY REPORTING (2006). THE REPORT IS PUBLISHED IN THE ITALIAN, ENGLISH, SLOVENE AND CROATIAN LANGUAGES IN ORDER TO ENSURE FULLER UNDERSTANDING THROUGHOUT THE GROUP.

ABOUT THE REPORT

The year 2009 was one of continuity for the Aquafil Group. Encouraging results were achieved also thanks to the projects initiated in previous years which became fully operational during the course of 2009. The report is divided into two parts:

the first part provides information about the Aquafil Group. We describe the Group's current organisation, the business areas in which we operate and our relationship with stakeholders. The second part reports the economic, environmental and social results for the entire operating year making comparisons with activities in previous years. The latter part provides an overview of the projects for the two-year period 2009-2010 and the state of project progress.

In this year's report we have wherever possible tried to use plain, less technical language with the aim of communicating the concepts of sustainability to as wide an audience as possible. In line with our guiding principles and our commitment to promoting the idea of sustainability, this report will be focussing on the key concepts of sustainability.

IN THE LAST THREE YEARS, THE ENVIRONMENTAL TEAM COORDINATED BY THE ENERGY & **RECYCLING BUSINESS** UNIT HAS FINE TUNED ITS DATA COLLECTION AND MONITORING SYSTEMS THROUGHOUT THE GROUP TO GUARANTEE THE HIGHEST LEVELS OF RELIABILITY OF THE

DATA PUBLISHED.

PHOTO INTO THE BACKGROUND: NEW BRIDGE BUILT OVER THE SARCA RIVER CLOSE TO TORBOLE

AQUAFIL AND ITS STAKEHOLDERS

THE AQUAFIL GROUP



90%	AQUAFIL ENGINEERING (DE)
94,99%	AQUAFIL BULGARI IPLIK (TR)
99,99%	AQUAFIL ASIA PACIFIC (T)
90%	AQUAFIL SERVICE (DE)
100%	MTX FIBRE (IT)
100%	> BORGOLON (IT)
99,64%	CENON (SK)
100%	TESSILQUATTRO (IT)
100%	
100 %	AQUASFAUL (II)
050/	
83%	AQUATIL SULAKIS (II)
E 40/	
51%	AQUAFIL PUVVEK (II)

The Aquafil Group specialises primarily in the production, marketing and supply of Nylon 6 synthetic yarns. We are Europe's leading producer of carpet yarns. We produce technical polymers for moulding and synthetic yarns for the clothing industry. Aquafil has a global presence. Our 1,800 employees work in eleven production sites worldwide. We have five production sites in Italy, three in Slovenia, one in Croatia, one in USA and one in Thailand. In the latter part of the year we set up a new company in China, near Shanghai, where a production facility will be specialising in the spinning and reprocessing of BCF carpet yarns and the production of engineering plastics.

THE GROUP-WIDE BUSINESS STRATEGY IS BASED ON FOUR FUNDAMENTAL PRINCIPLES:

CLOSE COOPERATION WITH CUSTOMERS

•

•

•

•

CONTINUOUS TECHNOLOGICAL INNOVATION

SPECIALISATION IN HIGH ADDED VALUE PRODUCTS

COMMITMENT TO THE USE OF RECYCLED RAW MATERIALS





THE ORGANIZATION OF THE AQUAFIL GROUP AS OF 31.12.2009

THE SCOPE OF THIS SUSTAINABILITY REPORT OF ALL OF THE GROUP'S PRODUCTION SITES





ITALY SIC GEORGIA (USA) THAILAND CHINA

TWELVE PRODUCTION SITES ON THREE CONTINENTS

🌮 CROATIA

OROSLAVJE NTF

Interlacing - Covering Twisting - Texturizing

F THAILAND

RAYONG - BANGKOK

BCF Interlacing Twisting - Logistics

CHINA

JIAXING



BCF Polymerization Spinning

EP Polyamide and masterbatch compounds

OUR ORGANIZATION

Complex production processes and products but a streamlined organisation. The Aquafil lean management organisation is divided into business units. THE ENERGY & RECYCLING BUSINESS UNIT PROVIDES SUPPORT SERVICES TO THE OTHER BUSINESS UNITS.

Technical, administrative and human resource management services are handled centrally by our headquarters at Arco (TN) in Italy.



CORPORATE GOVERNANCE

Group corporate governance is the responsibility of two bodies: the Board of Directors of Aquafil S.p.A. (group leader) and the Executive Management Committee.

The Board of Directors of Aquafil S.p.A (group leader) directs the corporate governance system of the Aquafil Group. It defines the development strategies of Aquafil companies and issues directives. It decides investment plans and monitors and evaluates results. In 2009 the Board of Directors was joined by two representatives of Hutton & Collins, a UK investment fund which has recently signed a growth plan agreement with the Group.

The role of the Executive Management Committee is to assist the Board of Directors in implementing strategy decisions. It is responsible for the operational management of industrial activities, logistics and marketing.

THE COMMITTEE MONITORS THE GENERAL PROGRESS OF THE GROUP, THE PROGRESS OF PROJECTS AND THE IMPLEMENTATION OF HEALTH AND SAFETY IN THE WORKPLACE POLICY.

GOVERNANCE

GIULIO BONA771 PRESIDENT AND MANAGING DIRECTOR

BRUNO TORRESANI

CARLO BONAZZI HONORARY PRESIDENT

ADRIANO VIVALDI MANAGING DIRECTOR

MANAGING DIRECTOR

ANTONIO BONAZZI MEMBER OF THE BOARD

MAURO MORETTI MEMBER OF THE BOARD

RAFAEL BOULET TORRES MEMBER OF THE BOARD





Our ultimate objectiv To become the leading company in the market of polyamide fibres and polymers, with total commitment to sustainability with the ultimate goal of contributing to restoration of the integrity of the Earth System.

THE HUTTON & COLLINS FUND

In September 2009 Aquafil signed an agreement with the company H&C Romeo, financed by funds managed by Hutton & Collins, a management company operating in UK and continental Europe.

Hutton & Collins, founded in 2002 by Graham Hutton and Matthew Collins, today manages three dedicated funds totalling € 1.4 billion (\$ 1.9 billion) on behalf of leading global financial institutions. The operation agreed with Aquafil is the second in Italy for this UK fund and is one of the largest private equity transactions in Europe since the beginning of 2009.

The fund has invested at total of € 45 million in order to support the Aquafil growth strategy with the aim of strengthening the Group's position of leadership world-wide.

H&C FUNDING WILL ENABLE THE COMPANY TO CONTINUE INVESTING IN SUSTAINABLE DEVELOPMENT. THE INVESTMENT WILL ACCELERATE THE COMPANY'S GROWTH STRATEGY WHICH IS FOCUSED ON THE DEVELOPMENT OF ECONYL, AN ENVIRONMENTALLY SUSTAINABLE PROJECT, AND EXPANSION INTO THE ASIAN MARKET WITH THE OPENING OF ITS FIRST PRODUCTION FACILITY IN CHINA.

THE H&C FUND HAS INVESTED IN 22 PROJECTS IN 21 COMPANIES WORLD-WIDE. IT HAS ONE OTHER PROJECT ELETTRA GROUP, SPECIALISTS IN ELECTRICAL POWER GENERATION AND RENEWABLE ENERGY.

AQUAFIL AND ITS STAKEHOLDERS

CUSTOMERS

One of Aquafil's guiding principles has always been close cooperation with customers. Customers are the first to know which way the market is moving. That's why we listen to them for information on the latest trends and developments. That's why we are strongly focused on sharing with them our commitment to products made from recycled raw materials.

WE CONTINUE TO ORGANISE SPECIAL MEETINGS WITH CUSTOMERS ABOUT RECYCLING. OUR AIM IS TO DEVELOP SHARED METHODS AND OBJECTIVES TO BE INCORPORATED IN OUR SUSTAINABLE GROWTH PROJECTS.

SUPPLIERS

The Group policy sees suppliers as important partners in business success and a sustainable approach to manufacturing. We continue to work closely with our suppliers on the application of the REACH directive. With our suppliers, primarily those providing packaging and raw materials, we have established an ongoing dialogue to identify the methods which will improve the levels of sustainability in our dealings with them.

OUR OBJECTIVE IS TO ESTABLISH A SHARED APPROACH TO NATURAL RESOURCE SAVINGS, ENERGY EFFICIENCY AND RECYCLING BECAUSE THESE FACTORS ARE VITAL TO OUR FUTURE DEVELOPMENT.

EMPLOYEES

TRAINING, ESPECIALLY ON HEALTH AND SAFETY IN THE WORKPLACE AND SUSTAINABILITY TOPICS, IS OF PRIMARY IMPORTANCE.

THE LOCAL COMMUNITY

THE LOCAL COMMUNITIES WHERE OUR COMPANIES OPERATE HAVE ALWAYS BEEN CENTRAL TO OUR SOCIAL POLICY. IN LINE WITH THE MISSION OF THE ENERGY & RECYCLING BUSINESS UNIT, WE PROMOTE A BROAD APPROACH TO SUSTAINABILITY ISSUES INSIDE OUR COMPANIES AND IN THE LOCAL COMMUNITIES WHERE THEY OPERATE. WE STRONGLY BELIEVE IN SUSTAINABILITY AND ARE COMMITTED TO PROMOTING SUSTAINABILITY AS A GUIDING PRINCIPLE NOT ONLY IN OUR WORK BUT ALSO IN ALL OUR DAILY ACTIVITIES.

We continue to collaborate with leading universities on R&D projects. Two students, from the Cattolica University (Milan) and the University of Trento, based their degree theses on Aquafil using us as an example of a modern, multinational company dedicated to sustainability.

We are strongly committed to our employees. As already mentioned in the Letter from the President, in 2009 the Group managed to maintain existing employment levels despite the widespread slowdown in economic activity. We made minimum use of the social assistance programmes provided in the countries where we operate.

PHOTO ON THE RIGHT: CARPET MADE FROM ECONYL® AND ALTOCHROMA® YARNS

GROUP ACTIVITIES

BCF SYNTHETIC YARNS FOR TEXTILE FLOORING

The core business of the Group ever since its foundation has been the production of polyamide 6 yarn for carpeting used in contract applications (hotels, offices and public buildings), the automotive industry and the home furnishings market. A highly differentiated product range, innovative production technology and a first-class customer care service have made the Group the leading manufacturer for this sector in Europe.

The manufacture of products containing recycled material continues to increase in importance and is the area where Aquafil sees the major challenges of the future.

OUR CUSTOMERS SHARE AND SUPPORT OUR VISION AND HAVE ALREADY CREATED ENTIRE COLLECTIONS BASED ON OUR ECONYL RECYCLED YARNS. ECONYL YARNS OFFER EXACTLY THE SAME QUALITY AND TECHNICAL PERFORMANCE AS YARNS MADE FROM VIRGIN RAW MATERIAL. CONSUMERS HAVE BECOME VERY SENSITIVE TO ENVIRONMENTAL ISSUES AND TODAY SHARE THE SAME GUIDING PRINCIPLES AS THE AQUAFIL GROUP.



Econyl 70 contains 70% post-industrial recycled material and 30% virgin raw material and makes Aquafil market leader for recycled products. In the USA we have developed a yarn containing a percentage of post-consumer recycled material. This has been made possible by local supplies of suitable material in the form of recycled carpeting.









ENGINEERING PLASTICS

Polymers for injection moulding consist of compounds developed from Nylon 6 and also from other types of polymer. Our products range from simple polymers with additives to products for high-added-value applications such as reinforced polymers for the automotive industry, flameproof polymers for electrical engineering applications and polymers for furnishings and sports.

In 2009 this business unit obtained major, new approvals for the formulations used in the certified plastic components made by leading manufacturers. Integrated production processes mean that we can use yarn wastes and reprocessing waste produced inside the Group. This is an area where products of the Econyl family becoming increasingly more important. In 2009 Aquafil was award "Sustainable Product" approval by UL Environment, a leading standards, approval and certification authority.

ON COMPLETION OF THE APPROVAL PROCESS WE WERE AWARDED AUTHORISATION TO THE USE OF THE **ECO SUSTAINABLE PRODUCT CERTIFICATION MARK** ON PRODUCTS COMPLYING WITH THE REFERENCE STANDARD. WE WERE THE FIRST MANUFACTURER WORLD-WIDE TO OBTAIN UL CERTIFICATION FOR THESE PRODUCTS.



0

Recycled Polyamide

-, AQUAFIL







PHOTO ON THE RIGHT: ORACLE SPORTS TEAM CLOTHING MADE BY SLAM USING DRYARN®. PHOTO BY KIND PERMISSION OF SLAM.

SYNTHETIC YARNS FOR THE CLOTHING INDUSTRY

Synthetic yarns for clothing is the third business area in the Aquafil Group. The quality and reliability of our fibres has enabled leading fashion houses and sportswear companies throughout Europe to make high quality products for an increasingly more demanding market. In addition to the Nylon 6 and 66 yarns widely used in the hosiery and clothing sectors, we also produce special microfibers for use in special forces military clothing, professional sports wear and equipment for extreme sports.

This is another sector where consumers are looking for environment-friendly products which contain recycled material and which are made in conditions where every effort is made to reduce the impact on the environment. Aquafil met this need promptly by providing industry customers and final consumers with a wide range of Dryarn and Microlon solution-dyed microfibres. Solution dyeing eliminates the need to dye the thread, fabric or garment using a conventional method which otherwise consumes a great deal of water and energy, and uses substances that are often difficult and expensive to dispose of.

THE RECENT INTRODUCTION OF ECONYL® HAS ATTRACTED A LOT OF ATTENTION FROM MAJOR NAMES IN THE CLOTHING INDUSTRY. THIS YARN CONTAINS A HIGH PERCENTAGE OF RECYCLED MATERIAL AND IS SEEN BY CLOTHING MANUFACTURERS AS AN OPPORTUNITY TO PROMOTE THEIR ENVIRONMENTAL POLICIES AND TO CAPITALISE ON THE GROWING SENSIBILITY OF CONSUMERS TOWARDS ENVIRONMENTAL ISSUES.



Dryanne Dry









THE ECONYL PROJECT

THE RECYCLING AND REUSE OF MATERIALS IN OUR PRODUCTION PROCESSES WILL PROVIDE EXTRAORDINARY OPPORTUNITIES FOR GROWTH IN THE COMING YEARS.

ONMENTAL BENEFITS OF ONE TON OF ECONYL







WATER

WASTE

C0₂

CRUDE OIL



•

.

from renewable sources;

To encourage a culture of sustainability inside the Aquafil Group and in dealings with stakeholders.

In October 2009, the business unit started a new project to promote the use of recycled material which involved all the research and production technology departments. The aim of the project is to develop and perfect innovative and economically competitive technologies for the production of polymers and recycled yarns. The project will develop the technologies for producing the "Econyl" polymer obtained from recycled post-industrial and post-consumer wastes.

THIS WILL MAKE IT POSSIBLE TO CLOSE THE RECYCLING LOOP. PROCESS WASTE AND USED MATERIAL WILL BE CONVERTED INTO SECONDARY RAW MATERIAL FOR MAKING CARPETING YARN, CLOTHING YARN AND TECHNICAL POLYMERS.

THE ENERGY & RECYCLING BUSINESS UNIT

Set up in 2008, the Energy & Recycling business unit immediately started to implement its mission objectives. Its objectives are:

To promote the use of low environmental impact energy and energy generated

To promote the use of recycled raw materials;

During the year, the business unit grew with the recruitment of experts in the energy sector. Specialist personnel enabled a start to be made on projects related to energy efficiency, the reduction of environmental impact and renewable energy sources.



A YEAR. RESULTS, ACTIONS AND PROJECTS

Our core purpose To serve Humanity while preserving the Earth, creating value through innovation.

THE ECONOMY

COMBATING THE CRISIS

In general, the year was characterised by a world economic recession, a liquidity crisis in the international banking system and widespread public intervention to support the economy. Despite this unfavourable background, the Aquafil Group achieved good results and was able weather the effects of the crisis thanks to a solid equity situation and its position of leadership. Against the backdrop of a global market recession, Aquafil significantly increased its market shares in all three of its business area and maintained stable sales volumes.

SIGNIFICANT FACTORS HERE WERE THE DEVELOPMENT OF NEW PRODUCTS, THE RENEWAL OF THE PRODUCT RANGE AND THE ADDITION OF NEW PRODUCT FAMILIES INCLUDING ECONYL®.

The fall in consolidated turnover reflects the contraction in raw material prices which characterised the first three quarters of the operating period with the trend only being reversed in the final months of the year.







ECONOMIC

THE SUBSTANTIAL FALL IN THE AVERAGE YEARLY PRICE OF RAW MATERIALS IN COMPARISON WITH 2008 HAD A VERY NEGATIVE EFFECT ON THE VALUE OF INVENTORIES THUS WORSENING THE OPERATING RESULTS FOR THE PERIOD BY APPROX. € 8.8 MILLION THEREBY TRANSFERRING MOST OF THE BENEFITS TO THE NEXT OPERATING PERIOD.

THE FINANCIAL SITUATION

AN IMPORTANT YEAR FOR STRENGTHENING AQUAFIL GROUP EQUITY

Net indebtedness to external investors considerably decreased thanks to the cash flow generated by operations. From the equity point of view the most significant event in the period was the acquisition of a minority shareholding in the company by HC Romeo S.a.r.I. a body belonging to the UK investment fund Hutton & Collins. H&C bases its investment strategy on assisting successful entrepreneurs and management teams in developing their businesses.

THIS OPERATION STRENGTHENS THE EQUITY OF THE AQUAFIL GROUP WITH THE FUND PROVIDING FULL SUPPORT FOR THE GROUP'S DEVELOPMENT STRATEGY FOR ITS TRADITIONAL BUSINESS BASED ON SUSTAINABILITY AND GROWTH IN ASIA AND NORTH AMERICA.



NET FINANCIAL DEBT TO THIRD PARTIES

"SUSTAINABLE DEVELOPMENT IS DEVELOPMENT THAT MEETS THE SOCIAL. COLOGICAI AND FCONOMIC NFFDS OF CURRFNT GENERATIONS $\Lambda/\Box H() \cup \Box$ COMPROMISING THE ABILITY OF JRE GENERATIONS OWN NFFDS".

WORLD COMMISSION ON ENVIRONMENT AND DEVELOPMENT. OUR COMMON FUTURE, 1987

ECONOMIC



600

Report

ability I

AQUAFIL Sus

CONSOLIDATED ENVIRONMENTAL BALANCE SHEET

2009 vs 2008

STEAM PURCHASED 73.128 MWh / 71.392

The control and reporting system operating at each of the eleven sites of the Aquafil Group is now thoroughly tested and has made it possible to produce a Consolidated Environmental Balance Sheet for the third year running. Each site is in a position to assess its environmental results and to draw up its own improvement plans with the help of the Energy & Recycling business unit which coordinates these activities. The system has proved to be effective and Group results shown a continuous improvement over the last three years. We can say that the actions implemented to promote sustainability have made it possible to limit the negative effects of the economic crisis started in 2008.

THE TABLE SHOWS THE NORMALIZED INDICATORS AND IT IS CLEAR THE POSITIVE TREND OF ALL THE INDICATORS OVER THE THREE-YEAR PERIOD. THREE INDICATORS ARE PARTICULARLY IMPORTANT FOR THE ENVIRONMENT AND BUSINESS: ENERGY, WATER CONSUMPTION AND WASTE DISPOSAL.

CONSOLIDATED ENVIRONMENTAL BALANCE SHEET

TREND 2007-2009

			Normalia	zed values p	per ton of finish	ed product
		UdM	2007	2008	2009	%09/08
	Basic materials	ton/ton	0,921	0,932	0,928	0%
	Auxiliary materials	ton/ton	0,076	0,068	0,067	-1%
	Electricity purchased	Kwh/ton	1.860	1.809	1.740	-4%
	Steam purchased	Kwh/ton	709,6	674,2	662,5	-2 %
\wedge	Natural gas purchased	Kwh/ton	2.144	2.154	2.126	-1%
	Water including condensation from steam	m³/ton	46,61	45,91	40,90	-11%
	Packaging for raw materials	ton/ton	0,011	0,017	0,007	-58%
IN	Packaging materials for the finished product	ton/ton	0,110	0,110	0,10	-9 %
		1ton	2007	2008	2009	%09/08
OUT	Packaging materials for the finished product	ton/ton	0,085	0,085	0,077	-9%
	Waste recycled	kg/ton	47,1	53,7	50,3	-6%
ЛN	Waste disposed of	kg/ton	12,5	8,6	6,9	-20 %
\sim	Emissions	gr/ton	574	581,3	486,1	-16%
	Greenhouse gases	ton/ton	439,5	426,4	423,4	-1%
	COD	kg/ton	2,8	2,6	2,4	-8%
	Waste water	m³/ton	39.5	39.4	35.1	-11%



4.514.590 m³ / 4.862.106

Bei





WASTE DISPOSED OF 1.286 ton / 1.361

DISCHARGE WATER **3.879.190** m³ / 4.171.077

COD **263** ton / 280

CH₄

OVERVIEW OF INVESTMENTS

•

.

INVESTMENTS IN THE ENVIRONMENT AND SAFETY



The positive trend in the consolidated balance sheet indicators is a clear demonstration of the validity of our decision to invest in safety and the environment.

Our projects have made it possible to reduce consumption, reduce costs and thereby reap economic benefits. In 2009 we invested a total of \in 5.9 million (approx. US\$ 8.2 million). Intervention has focused on three areas:

Safety. Our attention in this area was concentrated on fire prevention;

Energy. Activities here concentrated on the continuous optimisation of plant and machinery and the construction of photovoltaic power stations for the production of energy from renewable sources;

Recycling waste. Research projects in this area concentrated on the recycling of polyamide 6 process waste and waste from external sources.

IN THE 2009-2010 PERIOD WE STARTED 21 NEW PROJECTS. IN 2009 A FURTHER 3 PROJECTS WERE ADDED WITH THE OBJECTIVE OF IMPROVING THE LEVELS OF SUSTAINABILITY IN AQUAFIL GROUP ACTIVITIES. THESE PROJECTS ARE DETAILED IN THE 2008 REPORT. MOST PROJECTS CONCERN INTERVENTION AT SINGLE SITES. A REPORT ON THE PROGRESS OF THESE PROJECTS AND THE RESULT ACHIEVED IS GIVEN IN THE SECTION BELOW.

PROGRESS OF THE 21 PROJECTS IN THE 2009-2010 PLAN (LISTED IN THE 2008 REPORT)

WORK AREA	No. of projects	Completed projects	BENEFITS	IN 2009
			VALUES	RESULT
Improvement in energy efficiency (1)	9	5	-2890 Mwhe/a	-1,1%
			-115 000 Sm³/a	on el. en.
Waste reduction	3	2	-79 ton	-12,3%
Improvement/reduction of emissions	5	2	Process control	100%
Reductions in water consumption and COD	3	1	-244 000 m³/a	-5,1%
Work safety	4	3	Accident reduction	(see data)
TOTAL PROJECTS	24			



RESULTS

TRIGENERATION **PERFORMANCE**

TEP SAVINGSCO, PREVENTED



COGENERATION • TRIGENERATION • TEP

In 2006 Aquafil installed a cogeneration plant to provide the electricity previously supplied by the mains network and to provide the heat previously obtained from the burning of natural gas. Subsequently the use of cogeneration was gradually extended and then converted to trigeneration. We are now in a position to confirm the considerable environmental advantages of these developments which have enabled savings in natural resources and reductions in the emission of greenhouse gases. This is clearly shown in the bar chart for the period from 2006 to 2009 which shows the TEP saved and the CO₂ prevented.

THE RESULTS SHOW:

THE ENVIRONMENTAL ADVANTAGES OF COGENERATION AS AN ALTERNATIVE TO THE SEPARATE PRODUCTION OF ELECTRICITY AND HEAT;

THE TRANSFORMATION OF COGENERATION INTO TRIGENERATION ENABLES FURTHER IMPROVEMENTS.





ELECTRICITY

Energy consumption in 2009 totalled 500,000 Mwh of which 47% was provided by methane and other fuels (practically nearly all of the fuel used was natural gas). Even though the total consumption of energy increased in comparison with 2009, it should be noted that electricity purchased from the external network rose by just 0.3% while the consumption of natural gas rose by 2.9%. This increase in the consumption of primary energy in place of secondary energy such a electricity, increases performance. The indicator for total energy per product unit in 2009 was 2.8% less than that for 2008 and 4% less than in 2007, the year in which we started to control and report data. Despite the negative impact of the 2008-2009 economic crisis, the project implemented at the various sites during the three-year period made it possible to improve consumption figures and mitigate the negative effects of the crisis. The trigeneration plant at the Arco (TN) site is now fully operational and it has only been necessary to draw supplies from external sources during scheduled maintenance down-time and during peak periods. It has been possible to feed back nearly 5,000 Mwhe to the external network. In 2009 more thermal energy was recovered by bringing the cold water absorption units into full operation. As the table shows this enabled further reductions in the consumption of electrical energy.

ENERGY

If we take into account the overall performance obtained with plant originally designed for standard cogeneration, 956,500 Sm³ of natural gas was consumed for the energy fed back to the network. The equivalent CO₂ of this is 0.375 t/Mwh against the nationwide figure of 0.531 t/Mwh.

FEEDING ENERGY FROM THE AQUAFIL TRIGENERATION STATION BACK INTO THE NETWORK HAS PREVENTED THE EMISSION OF 775 TONS OF THE GREENHOUSE GAS $\rm CO_2.$

AQUAFI Energy	IL GROU PURCHA	P SED 2007	2008 200	9	ARCO FACIL
Mwh	2007	2008	2009	%	Electricity in Mw
METHANE	240.309	228.096	234.633	47%	
ELECTRICITY	208.453	191.519	192.081	38%	Thermal energy
THERMAL ENERGY	79.539	71.392	73.128	15%	
TOTAL	528.301	491.007	499.842		
specific consumptio Mwh/t	n 4,726	4,669	4,539		

THE REFERENCE YEAR IS 2005 WHEN ELECTRICITY WAS PURCHASED EXTERNALLY AND HEAT WAS PRODUCED USING TRADITIONAL METHODS.



FACILITY		Purchased from outside sources	Produced Total	internally SOLD	TOTAL	
	2007	14.180	68.159	0	82.339	
y in Mwhe	2008	10.520	62.048	0	72.568	
	2009	2.975	70.228	4.968	68.235	
	2007	-	91.783		91.783	
energy in Mwht	2008	-	101.651		101.651	
0,	2009	-	106.730		106.730	

WASTES

The Aquafil Group has concentrated its efforts in this area on recycling waste from internal and external sources and on reducing the amount of non-separated waste it produces. The first step in the waste programme was to reduce non-separated waste. Results in 2008 were a significant improvement on 2007 (down from 1095 to 643 t/year). Results in 2009 were much better than planned with non-separated waste being down -12% on 2008, a great improvement on the planned figure of -5%. In 2009 the figures for all wastes remained stable at 2008 levels despite the increase in production which took place in 2009. Customers now request smaller batches. This means that material transferred between companies for processing now requires smaller packages and more packaging materials. To counteract the increased waste produced by this trend we implemented the following actions:

Maximum recovery and recycling of undamaged paper tubes;

Adoption of recyclable tubes wherever possible in one of the reprocessing cycles.

THESE INITIATIVES ENABLE A REDUCTION OF WASTE PAPER FROM 2636 TON IN 2008 TO 2463 TON IN 2009.

TYPE OF WASTE		kg/ton produced			% RECYCLED				
	2007	2008	2009	2007	2008	2009	2007	2008	2009
NON-HAZARDOUS SEPARATED WASTE	4.779	5.065	5.107	42,6	47,7	46,2	100	100	100
Paper	3.164	2.636	2.463	28,3	24,9	22,3	100	100	100
Plastic and wood	1.349	1.638	1.483	12,0	15,5	13,4	100	100	100
Other	266	791	1.161	2,3	7,3	10,5	100	100	100
HAZARDOUS SEPARATED WASTE	499	620	638	4,5	5,8	5,7	23	26	28
Residual Organic	116	162	180	1,0	1,5	1,6	100	100	100
Oils and exhausted batteries*	383	458	458	3,5	4,3	4,1	0	0	0
NON-HAZARDOUS NON-SEPARATED WASTE	1.095	643	564	9,8	6,1	5,1	0	0	0
SLUDGE FROM WATER TREATMENT	308	260	195	2,7	2,5	1,8	0	0	0
TOTAL	6.681	6.588	6.504	59.6	62.1	58.8	73	79	81

*Recycling performed by approved consortia

ATMOSPHERIC EMISSIONS

.

Direct CO₂ emissions: 93% of these emissions are produced by the Arco cogeneration plant; .

Direct CO₂ emissions resulting from the transfer of semi-finished materials between company sites;

Indirect CO₂ emission resulting from the purchase of electrical energy and steam from external sources; •

Direct CO₂ emission produced internally are in practice counterbalanced by the lower impact of indirect CO₂ emissions of -1370 ton. In particular the Arco production facility produces more electricity internally but as a result consumes more gas and therefore emits more direct CO₂. However, Arco substantially reduces the need to purchase electrical energy from outside sources (3,000 Mwhe against more than 10,000 Mwhe for the previous years). The difference of 7,000 Mwhe produced externally would have produced more than twice the CO₂ emitted by internal generation plant.

THE INCREASED EMISSIONS OF CO, PRODUCED INTERNALLY IS COUNTERBALANCED BY A MORE EFFICIENT UTILISATION OF THE FOSSIL FUELS USED. THIS IS CLEARLY DEMONSTRATED IN THE LOWER TOTAL ENERGY CONSUMPTION PER PRODUCT UNIT. METHODS FOR TRANSFERRING SEMI-FINISHED MATERIAL BETWEEN COMPANY SITES IS BEING IMPROVED AND THIS IS DEMONSTRATED BY THE LOWER AMOUNTS OF CO, EMITTED FOR THIS ACTIVITY.

Conversion coefficients:

1Kwh = 0,531 Kg CO₂ eq (Enel)

IN MOST CASES THE ACCURACY

TO A TOLERANCE OF 5 - 10%.

OF EMISSION FIGURES IS SUBJECT

ATMOSPHERIC EMISSIONS

TOC (CPL+OIL+VOC)

NOx

СО

SO2/SOx

DUSTS

TOTAL

PM10

2007

32,8

19.7

7,6

0

3,9

0

64

2008 2009

23,7

18.8

4.8

0

6.3

0

61,6 53,61

33,4

17.2

7,3

0

3.7

0

1Kwh = 0,43 Kg CO₂ eq (ELES and Slovenian Ministry of Industry-Department of Energy)

1Kwh = 0,726 Kg CO₂ eq (WebSite Southern Company - Georgia Power Company)

AQUAFIL GROUP Emissions of equivaler greenhouse gases	t 2007	2008 ton	2009 ton	Delta 2009-2008 ton	EMISSION TRADING for the Arco facility	ASSIGNED QUOTAS	CONSUMED QUOTAS	SAVING
DIRECT	49.258	45.151	46.740	1.589	2006	43.098	36.259	16%
INDIRECT	125.596	120.185	118.815	-1.370	2007	51.788	42.998	17%
MOVEMENT	2.433	2.650	2.299	-351	2008	55.203	39.548	28%
TOTAL	177.287	167.986	167.854		2009	55.203	42.220	24%



PRODUCTION OF WASTE



HAZARDOUS

WATER TREATMENT SLUDGE

42

Atmospheric emissions at the various Aquafil sites are tested at scheduled intervals which are more frequent than those required by regulations. Atmospheric emissions for our sites are moderate and below the specified limits. For climate altering gases we make a distinction between the following types of emission:

WATER

•

•

WATER SOURCES IN 2009

ENVIRONMENTAL

INDICATORS



TYPES OF WASTE WATER IN 2009



The water saving initiatives started in 2008 led to further improvements in 2009. Total water consumption in 2008 was 4.8 million m³ and dropped to 4.4 million m³ in 2009. This translates into an improvement in unit consumption. Unit consumption remained stable around 45 m³/ton in the first two years and then in 2009 dropped to 40m³/ton.

The savings are mainly in water drawn from wells. Most waste water (86%) goes into surface drainages while the remaining amounts are sent to local water treatment authorities. The COD in waste water is considerably lower than stipulated for various sites and countries and continues to fall. In 2007 COD was 310 ton and continued to fall to through 2008 dropping to 263 ton in 2009.

THIS REDUCTION IS DUE TO:

CONTROL PROCEDURES AT THE SITES OF THE MAJOR CONSUMERS OF PROCESS WATER. THESE PROCEDURES ENABLE CORRECTIONS TO BE MADE RAPIDLY EVEN IN THE EVENT OF SMALL DEVIATIONS;

PLANT MODIFICATIONS WHICH HAVE ENABLED REDUCTIONS IN THE USE OF PROCESS WATER.



DESTINATION VOLUME OF H ₂ O WASTE WATER m ³			VOLUME OF H ₂ O m ³			COD	CONCEN	AVERAG TRATIO	E N mg/litre
	2007	2008	2009	2007	2008	2009	2007	2008	2009
TREATMENT	594.581	622.662	548.779	95	100	91,4	160	160	167
SURFACE WATER	3.848.489	3.548.415	3.330.411	215	180	172	56	51	52
TOTAL	4.443.070	4.171.077	3.879.190	310	280	263	-	-	-



ENVIRONMENTAL INDICATORS 2009

nability Report

AQUAFIL Sustair

OVERVIEW OF IMPROVEMENT PROJECTS

ENERGY AREA

PROJECT	FACILITY	COMPLETION AT 31-12-2009	ACTIONS AND BENEFITS				
1 Energy efficiency improvement plan	Aquafil USA	20%	In 2009, analysis and identification of improvement points with the assistant external experts (City Electrical Team, Cartersville and an independent comp identified potential savings of over 2000 Mwh/year.				
			Completion planned for 2010.				
2 Substitution of neon lighting with energy-saving	Tessil 4	100%	Fitting of 643 new, T5 energy-saving light bulbs in the Tw Benefits:	isting department.			
light bulbs.			a) Reduction in energy consumption:	60 Mwh/year			
			b) CO_2 emissions prevented:	32 ton/year			
3 Substitution of textile yarn reprocessing machinery	Bulgari doo	50%	Substituted motors on 15 textile reprocessing machines. Benefits at current stage:				
motors with low energy consumption equivalents.			a) Reduction in energy consumption:	90 Mwh/year			
			b) CO_2 emissions prevented:	40 ton/year			
4 Installation of automatic on-off light switches on machines.	Borgolon	100%	Automatic on-off light switches installed on all machines. refrigeration units increased. Benefits:	Operating temperature of			
5. Increasing the operating			a) Reduction in energy consumption:	840 Mwh/year			
temperature of refrigeration units.			b) \rm{CO}_2 emissions prevented:	445 ton/year			
6 Increase the efficiency of energy auto-generation plant.	Aquafil	40%	Engineering design completed. Forecast benefits:				
			a) Average electrical output:	+1% (approx.)			
			b) Increase in energy production:	2.600 Mwh/year			
			c) CO_2 emissions prevented:	450 ton/year			

SUPPLEMENTARY PROJECTS FOR 2009/2010

7 Substitution of existing refrigeration machines with	Julon	100%	Machines substituted. New machines operative in July 2009. Benefits:				
new low-consumption types.			a) Reduction in energy consumption:	1.030 Mwh/year			
			b) \rm{CO}_2 emissions prevented:	440 ton/year			
8 Optimisation of the management of compressed	Julon	100%	Installed new management data collection system. Insta Benefits:	lled new compressors.			
air. Rationalisation of compressors. Installation of			a) Reduction in energy consumption:	960 Mwh/year			
new energy saving machines.			b) CO_2 emissions prevented:	410 ton/year			
9 Heating of offices, canteen and changing rooms at Arco with heat recovered from hot water.	Aquafil	100%	The water heating circuit of all the offices, the canteen a previously heated with local gas boilers, is now supplied from a low temperature heat recovery system. Benefits:	nd the changing rooms, I with hot water obtained			
			a) Reduction in methane gas consumption:	115.000 Sm³/year			
			b) $\rm CO_2$ emissions prevented: (with the heating system operating 90 days per year)	225 ton/year			
TOTAL EFFECTS OBTAINED FOR THE YEAR IN 2009:		1) Reduction in electricity consumption:	2.980 Mwh/year				
			2) Reduction in methane gas consumption:	115.000 Sm³/year			
			3) CO, emissions prevented:	1.592 ton/year			

WASTE AREA

PROJECT	FACILITY	COMPLETI AT 31-12-2
1 Elimination of 50 t/year of separated wastes through the use of aluminium tubes.	Bulgari doo	90%
2 Programme for reducing non-separated wastes (-5%) extended to all sites.	All sites.	100%
3 Reduction of separated waste by using recyclable separators for the intercompany handling of bobbins at Italian sites (-15%).	BCF Italy	0%
EMISSIONS AR	EA FACILITY	COMPLETI

PROJECT	FACILITY	AT 31-12-2
1 Rationalisation and reduction of emission points.	Aquaspace	0%
2 The start of this project is planned for 2010.	Aquafil	20%
3 Construction of plant for the generation of electricity from renewable sources. (-1560 ton/year of CO ₂)	Aquafil Solaris	40%
4 Anemometric and meteorological measures.	Tessil 4	100%
5 Elimination of one of two stacks in order to reduce total atmospheric emissions.	Borgolon	100%

ION ACTIONS AND BENEFITS

In 2009 we substituted 90% of the disposable paper tubes of the yarn bobbins sent from Julon to Bulgari doo for reprocessing with recyclable aluminium tubes. Effects:

Reduction in paper waste:

45 ton/year

Overall effect of reductions in non-separated wastes in the period 2007-2009:

Tear	ION	Reduction (%)
2007	1095	-
2008	643	-41% on 2007
2009	564	-12% on 2008

Target higher than specified.

The start of this project is planned for 2010.

ION ACTIONS AND BENEFITS

The start of this project is planned for 2010.

We investigated the technical methods which could be used to improve the Aquafil filters. The possible solutions identified are being assessed.

Completed: the design of the two photovoltaic fields (approx. 1 Mwp) at Aquafil Solaris and the selection of the panels for this site. The two areas selected have been prepared for installation and fenced off. The application procedures for connecting the photovoltaic plant to the national power supply network is being completed.

A 15 metre high anemometric tower was installed on roof of the Tessil 4 facility at Cares. In November 2009 the survey included measurements of wind speed and direction in order to study the feasibility of installing wind power generation equipment.

Following special authorisation from the authority responsible, we modified the extraction of interlacing air containing oily droplets to include a washing scrubber. The stack concerned was taken out of service and the washed air was conveyed to the remaining stack. Effects:

a) Reduction in the number of stacks.

- b) Reduction in emitted volumes.
- c) Simplified management and control of emissions.

2009

WATER AREA

PROJECT	FACILITY	COMPLETION AT 31-12-2009	ACTIONS AND BENEFITS				
1 Completion of the project to reduce consumption of polymer cooling water used in autoclaves	Aquafil 30%		Completion of the first part of the project to reduce autoclave cooling water consumption through the introduction of a special recycling circuit. We obtained an overall saving of 640 m ³ /day. Effects:				
(-20% per year).			a) Savings in well water:	230.000 mc³/year			
			b) Percentage reduction:	-10%			
2 Reduction of total COD in ton/year and/or Kg/t (-10%).	Aquafil 60%		We established a procedure for monitoring and controlling the various types of waste water which enables real-time correction in the event of variations. The system became operational at the end of the year. Effects:				
			a) Annual reduction in COD:	-6,4%			
3 Improvement of conditioning equipment to	Borgolon		We improved the circuit by installing a liquid separator. Effects:				
eliminate water leakages from the circuit			a) Savings in well water:	14.000 mc ³ /year			
			b) Percentage reduction on previous consumption:	-25%			

SAFETY AREA

PROJECT	FACILITY	COMPLETIC AT 31-12-20
1 Completion of CPI works at all Italian sites.	Italy – Trento	85%
2 Maintain the hours/year of safety training at all sites at current levels.	All	100%
3 Transfer of FMEA results to an operational environment with the involvement of employees.	AEP	100%
4 Completion of the feasibility study into the installation of an EH&S module on the SAP platform for managing safety issues.	Aquafil	100%

+21%

>50%

ON ACTIONS AND BENEFITS

This is a major project as the size of the investment in the Safety area shows. This project is planned for completion in the first quarter of 2010.

Training on safety issues was maintained at 2008 levels and was increased on practically all sites. Example:

Slovenia/Croatia

Aquafil USA

The Failure Mode and Effect Analysis (FMEA) conducted in the Compounds department was revised by an external consultant with the involvement of all the personnel directly concerned. FMEA was extended to all the production departments in the facility. The results of the analysis were used as the basis for drafting a technical intervention plan (plant modifications and improvements) and a training plan. A scale of priorities was defined based on the level of risk identified for each item.

The SAP - EH&S INDUSTRIAL HYGIENE project was drafted. On the basis of specifications drawn up by safety experts, the internal ICT department assisted by an external IT company drafted a project for installing the EH&S module on the Group's SAP system. The final adoption of the module is still subject to an assessment of the adaptability and flexibility of the module in operational situations. The adaptability and flexibility of some sub-modules is good (e.g. preparation of product safety data labels) but poor in other cases (e.g. plant maintenance operations). Drafting the project was in itself an valuable experience because it enabled a systematic review and revision of procedures regarding safety issues.

COMMITMENT TO COMPANY PERSONNEL



The steps along the way. We will develop and evolve closed loop cycle products, thus saving natural resources and contributing to the regeneration of the environment. We will give ourselves the concrete and measurable goal of climate neutrality increasing continuously the use of energy obtained from renewable sources. We will involve all collaborators, clients, suppliers and local communities in our project.

AQUAFIL GROUP	2007	2008	2009
MEN	1.201	1.170	1.167
WOMEN	568	648	623
TOTAL	1.769	1.818	1.790

The macro economic crisis of 2009 led to an overall slowdown in the growth and development of the world economy. Clearly the Aquafil Group could not hope to remain unaffected by the general downturn. However, it did manage to achieve the objective it set at the start of the crisis. Our objective, then as now, was to limit as far as possible any fall in employment levels throughout the Group.

Guided by a company ethical policy which places the needs of company personnel at the forefront and thanks to the forms of social assistance available in many countries, in 2009 we managed to limit the decline in company employment levels to -1.85% (consolidated) on the previous year.

The situation for each country is as follows:

COUNTRY	UNEMPLOYMENT RATE 2009 / 2008 BY COUNTRY	UNEMPLOYMENT RATE 2009 / 2008 AQUAFIL
ITALY	+1%	+0,56%
SLOVENIA	+2,7%	+3,89%
CROATIA	+2,4%	-2,60%
USA	+3,5%	0
THAILAND	+0,20%	0

*Official sources: Eurostat, Bureau of Labor Statistics (USA) Cia - Central Intelligence Agency

PERSONNEL BY **B.U.**



UNEMPLOYMENT LEVELS INCREASED IN ALL THE COUNTRIES WHERE AQUAFIL HAS PRODUCTION FACILITIES. COMPARING AQUAFIL FIGURES WITH NATIONAL FIGURES WE CAN SEE THAT THE INCREASE IN UNEMPLOYMENT ACROSS THE AQUAFIL GROUP WAS SLIGHTLY LOWER THAN THAT FOR ALL COUNTRIES WITH THE EXCEPTION OF SLOVENIA. IN SLOVENIA THE INCREASE WAS ABOVE THE NATIONAL AVERAGE BECAUSE AN ENTIRE DEPARTMENT WAS TRANSFERRED FROM THE SLOVENIAN PLANT TO THE FACILITY IN CROATIA.

	MEN				WOMEN			TOTAL	%		
	2007	2008	2009	2007	2008	2009	2007	2008	2009	2008	2009
ITALY	637	653	661	216	245	232	853	898	893	49,4%	49,9%
SLOVENIA	443	389	372	195	177	166	638	566	538	31,1%	30,1%
CROATIA	15	31	36	94	161	161	109	192	197	10,6%	11,0%
USA	100	89	89	57	53	53	157	142	142	7,8%	7,9%
THAILAND	6	8	9	6	12	11	12	20	20	1,1%	1,1%
TOTAL	1201	1170	1167	568	648	623	1769	1818	1790		

	ITALY						ABROAD					TOTAL			
	MEN WOMEN					MEN WOMEN				I					
	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009	2007	2008	2009
EXECUTIVE	18	21	21	1	2	2	4	6	8	0	0	0	23	29	31
MIDDLE MANAGEMENT	35	32	35	5	5	5	54	46	44	17	15	14	111	98	98
OFFICE WORKERS	100	105	106	79	82	82	35	30	33	49	70	70	263	287	291
PRODUCTION WORKERS	484	499	499	131	152	143	471	435	422	286	318	306	1372	1404	1370
TOTAL	637	657	661	216	241	232	564	517	507	352	403	390	1769	1818	1790

SOCIAL INDICATORS

TRAINING ITALY



TRAINING SLOVENIA AND CROATIA



TRAINING USA AND THAILAND



TRAINING: RESULTS

We are firmly committed to the training of our personnel training because we know that skilled, well-trained people are the key to our company's success.

At our European sites 40% of our training effort is dedicated to health and safety in the workplace and to environmental issues. In the United States, on the other hand, training initiatives tend to concentrate on technical matters. Aquafil USA has invested considerably in training and continued with the projects started in the previous year. We believe that raising the awareness of safety issues is a fundamental first step in increasing safety in the workplace.

In all our production facilities we are committed to maintaining the highest possible quality standards even though these may not be required by local regulations. Language learning courses have also been held especially in Slovenia where Italian and English are considered to be an essential part of personnel training programmes. Particular attention is paid to the training of new employees who attend special induction courses under the guidance of the departmental supervisor.

IN 2009, IN ACCORDANCE WITH ITS MISSION STATEMENT, THE ENERGY & RECYCLING BUSINESS UNIT ORGANISED MADE-TO-MEASURE, IN-HOUSE COURSES TO PROMOTE THE PRINCIPLES OF SUSTAINABILITY IMPLEMENTED AT AQUAFIL. THIS WAS A MAJOR TRAINING INITIATIVE INVOLVING ALL PERSONNEL AT ALL LEVELS THROUGHOUT THE COMPANY. CONTINUOUS TECHNICAL TRAINING PROGRAMMES FOR CERTAIN COMPANY ROLES CONTINUED AS IN PREVIOUS YEARS.



HEALTH AND SAFETY IN THE WORKPLACE

The frequency, risk and gravity indices all continued to improve in 2009 confirming the trend of previous years. The trend also confirms the value of the action programmes based on the following four principles:

Keep people at all levels continuously informed;

Train people to work safely and correctly;

Involve everyone in the production process;

Monitor activities systematically and measure results.

During the year one new member of staff was recruited to the Safety Office. This made it possible to dedicate more time to supervising and monitoring safety matters in-house. In 2009 collaboration between the Safety Managers (RSSP) of each site was further improved. Safety Managers now share their experiences and interpretations of safety standards and also take part in training courses. Increased interaction between production personnel and the Safety Office has made it possible to intervene more rapidly to prevent potential risks.

IT SHOULD BE EMPHASISED THAT AQUAFIL PROMOTES AND IMPLEMENTS A HEALTH AND SAFETY POLICY BASED ON PREVENTION. THE POLICY IS IMPLEMENTED THROUGHOUT THE GROUP AND TAKES INTO ACCOUNT THE INDIVIDUAL CHARACTERISTICS OF EACH GROUP MEMBER.

AQUAFIL GROUP	hours worked (including temps)	no inf. accidents > 3 days	no of day lost more than 3 days	FI	GI	RI
2007	2.887.834	94	2296	32,55	0,36	26,88
2008	3.233.891	85	2087	26,28	0,65	16,96
2009	3.272.860*	51	1181	15,58	0,80	5,62

FI (FREQUENCY INDEX): (no. of accidents with lost time > 3 days) x 1,000,000 / hours worked. GI (GRAVITY INDEX): (no. of days lost > 3 days) x 1,000 hours worked. RI (RISK INDEX): FI X GI

*Includes the total hours worked by temporary personnel.



ISO 14001-2004 CERTIFICATION AND ENVIRONMENTAL PERMITS.

THE FOLLOWING ISO 14001-CERTIFIED FACTORIES IN THE AQUAFIL GROUP COMPRISE 60% OF THE GROUP (IN TERMS OF PERSONNEL AND SALES VOLUMES):

AQUAFIL S.P.A. (ARCO), CERTIFIED IN 2002. CERTIFYING AGENCY DNV.

•

JULON D.D SUBSEQUENTLY ASSOCIATED TO AQUASET STORE, OBTAINED THE ISO 14001 CERTIFICATION IN 1998.

IN OCTOBER 2008 JULON OBTAINED THE AIA PURSUANT TO IPPC.

THE THREE ENVIRONMENTAL MANAGEMENT SYSTEMS ARE PERIODICALLY AUDITED BY THE RELATIVE CERTIFYING AGENCIES.

AQUAFIL S.P.A. AND AQUASPACE S.P.A. OBTAINED INTEGRATED ENVIRONMENTAL AUTHORIZATION ON 2 SEPTEMBER 2005 AND 24 OCTOBER 2007, RESPECTIVELY.

SAFETY AND ENVIRONMENTAL POLICY

The primary goals that we set ourselves are: ongoing improvements in safety, the work environment, and protection of the natural environment.

Convinced that improving the work environment and reducing the risk of accident are a social obligation which the company must fulfil, and that the natural environment is a shared resource that is precious to everyone, Aquafil S.p.A. is thus committed to:

٠

creating and maintaining an organized Safety and Environmental Management System which provides constant supervision of company operations and minimizes the probability and the consequences of accidents, whatever their nature;

reducing the impact of company operations, processes and products to protect the environment, prevent all types of pollution, and optimize the use of natural resources.

setting goals for improving safety in the workplace and reducing the environmental impact of company operations, processes and products; •

estimating in advance (and right up until the development phase) the possible impact of new processes and products on safety, the workplace and the external environment;

improving the management of natural resources and energy;

systematically verifying and documenting the efficiency of its Safety and Environmental Management Systems;

promoting a safety and environmental culture at the factory by providing appropriate training and by communicating to all personnel the goals for improvement that are established from time to time, so that staff becomes fully involved in completing activities designed to effect improvement and in solving specific problems;

ensuring that employees of outside companies working at the factory follow procedures and current laws regarding safety in the workplace and environmental protection.

obeying current laws on safety and the environment;

To implement this policy, Aquafil S.p.A. is committed to:



Our core values. The importance of people clients, suppliers, collaborators or simply as citizens of the Farth The quest for innovation as a constant necessity, pursued with every available means. The entrepreneurial spirit: a willingness to put oneself on the line with one's work, accepting all the risks and the obligations.

INITIATIVES

We sponsor sports activities in the Trentino region. For several years we have participated in an indoor football tournament organised by the city of Ljubljana in Slovenia. Our ski team competes in the Italian championship for employees in the textile industry.

OUR SOCIAL PROGRAMME FOR GROUP EMPLOYEES AND THEIR FAMILIES INCLUDES SUMMER EVENTS SUCH AS DINNER AT THE BAGATOL LAKE AND FOOTBALL, VOLLEY BALL AND BASKET BALL TOURNAMENTS. WE ORGANISE WINTER JOURNEYS ON THE SNOW. A TEAM OF OUR EMPLOYEES RUN IN INTERNATIONAL MARATHONS INCLUDING THE LAST PRAGUE AND NEW YORK MARATHONS.

In the United States, the initiative started two years ago to integrate the company into the local community of Cartersville continues with success. We provide financial assistance to the local Elementary School and Aquafil staff have dedicated 150 hours of their own time to assisting children with special needs. Also worthy of note is the very special "We cook for you" event, now in its fourth year, where all personnel are invited to a dinner cooked and served by managers. During the year Aquafil established links with the social work charity Elio d'Oro

at Riva del Garda. The charity promotes the integration into the community of the physically and mentally disabled and the socially disadvantaged. It offers social and educational services designed to encourage the development of work skills, personal independence and general well being. As part of our social programme we entrusted the charity with the preparation of the BCF yarn samples which we show to our customers. Once again this year, the company underwrote a medical insurance policy for its employees in Thailand. This was in addition to the health check-up which is more complete than that required by local regulations.

Our employees at Julon, Slovenia and at Aquafil USA can choose to participate in a private pension fund. In Slovenia, 263 employees opted into the scheme with the company making a contribution of \in 112,411. In the United States 20 employees chose the scheme and the company made a contribution totalling \$ 29,000.

AS IN PREVIOUS YEARS WE AWARDED FIVE SCHOLARSHIPS TO THE SONS AND DAUGHTERS OF EMPLOYEES WHO ACHIEVED THE BEST SCHOOL RESULTS. THEY CAN INVEST THE FUNDS AWARDED IN THE COURSE OF THEIR CHOICE.

THE PILA AWARD

In 1990, at our Arco facility, the PILA group (for Prevention of Accidents among Aquafil Workers) was set up as a permanent analysis and study unit to involve the entire organization in matters regarding workplace safety, health and guality at the production facilities of the Aquafil Group.

Originally made up of technical and production managers in our factories in Italy and a representative of the workers, the group was rearranged to meet the requirements of Legislative Decree 81/08, although its activities remained unchanged. In this expansion, new members were included that have specific responsibilities associated with safety in the workplace. The group meets on a regular basis to discuss common problems, examine accident statistics and issue the PILA Report, as well as to evaluate any new technology that is available in the sector. Aquafil Group management, together with the managers of the various production facilities, felt the need to expand its preventive measures to include meetings and opportunities to discuss results. As part of the Pila Group's activities, the PILA Award was created in 1998 with the goal of further strengthening the Group's effort to raise awareness of the importance of safety in the workplace.

THE CONTEST IS OPEN TO EMPLOYEES WITH OPERATIONAL RESPONSIBILITIES (WORKERS AND INTERMEDIATES). APPROXIMATELY 30 EMPLOYEES WITH THE LEAST TIME LOST DUE TO ACCIDENT AND ILLNESS ARE REWARDED EVERY YEAR.

PENSION FUNDS, SCHOLARSHIPS

嘉兴艾菲而聚合纤维有限公司 AQUAFIL SYNTHETIC FIBRES AND POLYMERS (JIAXING)CO., LTD.

AT THE END OF 2009 WE SET UP AQUAFIL SYNTHETIC FIBRES AND POLYMERS (JIAXING) CO., LTD. IN THE CITY OF JIAXING, IN ZHEJIANG PROVINCE, CHINA.

The mid-course goal Within 2020, 50% reduction of greenhouse CO₂ per unit of product into the atmosphere, 30 years ahead the G8 statement.

AQUAFIL SYNTHETIC FIBRES AND POLYMERS (JIAXING) CO., LTD.

Jiaxing is an industrial city in China. It has over 1,000 industrial companies, 300 of which are completely financed by foreign capital. The city has attracted over \$ 3 billion of foreign investment. The main industrial sectors are: automotive components, machinery, electronics, textiles and foodstuffs.

The new facility will start production during 2010 and will be producing Nylon 6 carpeting yarn and technical polymers for injection moulding.

The facility incorporates the very latest building technology and has been designed with particular attention to environmental concerns.

The facility will produce a high quality product to meet the needs of leading carpet makers world-wide. Some of these companies already operate in China or are planning to open production facilities there. Our objective is to open an Aquafil production facility in China which will directly serve the north Asian market directly.

A team of Chinese personnel coordinated by an Italian manager has already commenced the proceedings for setting up the new plant. Things are moving smoothly. Once it is up and running, it will employ 100 people. Twenty percent of the workforce will be working in product research and development.

AS IN OUR OTHER INTERNATIONAL PROJECTS WE WILL BE IMPLEMENTING OUR POLICY OF CLOSE COLLABORATION AND INVOLVEMENT WITH THE LOCAL COMMUNITY. THIS IS PARTICULARLY **IMPORTANT HERE** BECAUSE THE LOCAL CULTURE, RELIGION AND LANGUAGE IS VERY DIFFERENT FROM OUR OWN.

2009

AQUAFIL

COMMITMENT TO THE LOCAL COMMUNITY

The integration of the Aquafil Group companies into the local communities where they operate has always been one of guiding principles of our social policy. There are numerous benefits to having a company well rooted in its local surroundings. Low staff turnover is one of them.

OUR SOCIAL POLICY TRANSLATES INTO REAL FUNDING FOR EDUCATIONAL AND SOCIAL PROJECTS. AN EXAMPLE OF THIS IS OUR SPONSORSHIP OF SILA, A REGISTERED CHARITY IN SLOVENIA, PROMOTING SOCIAL INITIATIVES IN THE CITY OF LJUBLJANA.

TURN OVER ITALY	2005	2006	2007	2008	2009
DEATH	1	1	2	2	2
RESIGNATION	19	18	17	37	16
EMIGRATION	0	2	0	0	0
END OF WORK CONTRACT	2	0	5	10	11
TERMINATION	2	1	1	7	1
RETIREMENT	9	8	15	13	27
TRANSFER TO OTHER GROUP COMPANY	2	4	2	3	0
LABOUR MOBILITY	-	-	-	-	-
TOTAL	35	34	42	72	57

THE FUTURE FOR YOUNG PEOPLE

We continued with the "School and Industry Partnership" project started last year. The aim of the project is to introduce young people to the world of work. Top managers are directly involved in the initiative. They guide young students through courses designed to provide in-depth, specialist knowledge on the various aspects of work. Participants can choose from one of six courses according to what interests them.

Work is coordinated by a local technical college and gives young students the chance to put their schoolroom knowledge to the test in industrial surroundings. For example, we hosted students in company work environments so that they could see at first-hand the practical aspects of health and safety in the workplace. Before the visit our HSE officer visited the technical college to make a company presentation, to explain our industrial processes and to introduce the concepts of applied safety. The activity was judged to be a highly effective learning experience because it gave students direct contact with a real industrial environment impossible to replicate in the classroom.

OUR COOPERATION WITH ITALIAN AND FOREIGN UNIVERSITIES AND LEADING RESEARCH INSTITUTES CONTINUED WITH SUCCESS ONCE AGAIN CONFIRMING OUR INTERNATIONAL LEADERSHIP AS A SUSTAINABLE COMPANY. THE PRESIDENT OF AQUAFIL MAKES AN ACTIVE CONTRIBUTION TO PROMOTING SUSTAINABILITY.









OVERVIEW OF THE PROJECTS FOR THE 2010-2011 PERIOD

ENERGY

• Implementation of an energy efficiency improvement plan based on the final results of a survey. Our target is to complete 50% of the plan in 2010 with the overall objective of saving 2000 Mwh/year. (Aquafil, USA)

• Completion in 2011 of the substitution of the remaining 50% textile yarn reprocessing machinery motors with their low consumption equivalents (-10%). (Bulgari d.o.o., Croatia)

• Substitution of neon lighting with energy-saving light bulbs in the interlacing department (-30%/50%). (Tessil 4, Italy)

• Substitution of neon lighting with energy-saving light bulbs in the production department (-30/50%). (Aquaset, Celie - Slovenia)

• Substitution of light bulbs currently consuming 106 kw with bulbs consuming 38 Kw to make energy savings of 64%. (Aquaset, Senozece - Slovenia)

• Increase the efficiency of energy auto-generation plant as per the 2009 project with a target of +2000 Mwh/year. (Aquafil, Italy)

• Survey to study the feasibility of reducing steam consumption in

• Use of hot water recovered from the cogeneration plant during winter to substitute the steam in the two heating systems. The target is to save 400 kwh/h by reducing the consumption of natural gas for heating. (Aquafil, Italy)

• Heating of 14 spinning extruders with diathermal oil in the place of electrical resistances to save 450 Mwh/year electricity. (Aquafil, Italia)

EMISSIONS

• Rationalisation and reduction of emission points. (Aquaspace, Italy)

• Improvement in filter efficiency with a 10% reduction in emissions. (Aquafil, Italy)

• Completion of plant for generating energy from renewable sources (-1560 ton/year of CO).

 Reduction of TOC emission for Suessen BCF varn thermosetting machines (-30% approx.). (Julon, Slovenia)

• Improvement in emissions with a reduction of 50% in the dust emissions of the yarn laboratory through the modernisation of the pyrolysis ovens. (Julon, Slovenia)

WASTES

• Completion of plans to substitute paper core tubes with aluminium tubes to reduce separated wastes by another 10 tons. (Bulgari d.o.o. Croatia)

• Reduction of separated waste by using recyclable separators for the intercompany handling of bobbins at Italian sites (-15%). (BCF Italy)

• Further reduction of -3% of non-separated wastes at all sites.

• Reduction of separated paper waste by increasing the recovery and use of basic yarn tubes from 65% to 80% in the BCF area. Slovenia. (Julon and Aquaset, Slovenia)

• Elimination of the last chloride dielectric oil condensers and their substitution with new equipment which does not use this material. (Julon, Slovenia)

WATER

cooling water used in autoclaves. (Aquafil, Italy)

-6.5% to a total of -10%. (Aquafil, Italy)

• Automation and timing of drainage of the conditioner water tanks in the texturizing department and construction of a closed circuit Saving: 20 m³/ day.

• Installation of evaporation towers for the three 500 kw compressors Saving: 250,000 m³/year (-5%). (Aquafil, Italy)

• Survey of the recovery of cooling water from the extruder motor in order to reduce the consumption of well water by 15%. (AEP, Italy)

EMPLOYEES

- Completion of CPI works for Italian facilities.
- Maintain the hours/year of safety training at all sites at current levels.
- Planning of the technical methods and procedures required to implement the recommendations of the 2009 Failure Mode and Effect Analysis (FMEA). (AEP, Italy)

operations during polymerisation maintenance. (Julon, Slovenia)

GLOSSARY 2009

TO AID IN THE CORRECT INTERPRETATION OF THE TOPICS DISCUSSED, REPORTED BELOW ARE THE MEANINGS OF THE ACRONYMS USED.

ΔΙΔ

Integrated Environmental Authorization. The general authorisation granted by the authorities in charge to the companies subject to IPCC.All the environmental provisions (effluents, emissions, waste, etc.) are reported in a single authorisation document.

CO

Carbon monoxide, a toxic gas produced by the incomplete or partial combustion of fuels and combustible materials

CO,

Anidride carbonica, gas naturalmente presente in Carbon dioxide, a gas that is naturally present in the atmosphere. It is produced by combustion, respiration, and the decomposition of organic material due to the oxidation of carbon.

COD

Chemical Oxygen Demand. The oxygen consumed to oxidize organic and inorganic substances dissolved in water or in suspension. This parameter is mainly used to estimate the content of oxidizable compounds, and thus to evaluate the potential for polluting naturally occurring water and discharge water.

CPI

Fire Prevention Certificate.

CPL

Caprolactam

FMEA

Failure Modes and Effect Analisys.

Methodology that by analysing the possible faults in terms of probability, gravity and detectability allows us to anticipate risks and errors in both the development and design phase and in the operating phase of industrial operations.

IPPC

Integrated Pollution Prevention and Control.

European Directive aimed at reducing emissions and effluents, no longer on the basis of individual pollution sources but, having analysed their global effect, it imposes restrictions with respect to normal legal limits.

NOX

Nitrogen oxides. These gasses are mainly produced when atmospheric nitrogen is oxidized during normal combustion.

OIL

Oil fog.

PAT

Autonomous Province of Trento

PM10

Particles suspended in the air (PM: particulate) with an aerodynamic diameter of less than 10 microns.

REACH

Registration, Evaluation and Authorisation of Chemicals.

The European regulation with the objective to increase safety levels and protect the health of people and the environment from the risks deriving from the use of chemical substances.

SO2/SOX

Sulfur dioxide/sulfur oxides, which are produced by oxidation of sulfur during combustion of fossil fuels containing this element as an impurity.

TEP

Tons of Oil Equivalent - a unit of energy corresponding to the output of 1 ton of oil, used to express the energy production or consumption of a country.

тос

Total Organic Carbon.

The quantity of carbon contained in an organic compound. This parameter is used as a water quality indicator and to evaluate the content of organic substances present in smokes.

VOC

Volatile Organic Compounds.

Represent the organic substances released in the environment through the emissions. The principal source of these emissions is the use of solvents

Published by Aquafil S.p.A. via Linfano, 9 · 38062 Arco · Trento · Italy Tel. +39 0464 581 111 · Fax +39 0464 532 267 e-mail: info@aquafil.com · www.aquafil.com

Editorial design and coordination Aquafil S.p.A.

Concept e design Verter s.r.l.

Photo archive Archivio Aquafil

Printing Centrooffset Master Srl



Printed in May 2010.

Printed on paper Splendorgel EW Fedrigoni Cartiere SpA certified Chain of Custody FSC Ref. nr. C020064 (mixed sources).

Aquafil S.p.a.

Via Linfano, 9 · 38062 Arco TN · Italy **T.** +39 0464 581 111 · **F** +39 0464 532 267 info@aquafil.com

www.aquafil.com

