### **DEMONSTRATING RESPONSIBILITY**





#### PORTRAIT OF NORDDEUTSCHE AFFINERIE AG

Norddeutsche Affinerie (NA) is the leading copper producer in Europe and a global leader in copper recycling. With almost 3,300 employees, it produced some 800,000 tonnes of copper and copper products in fiscal year 2006/07 and is also one of the leading copper producers worldwide. The NA Group is active in two main business fields along the copper value chain:

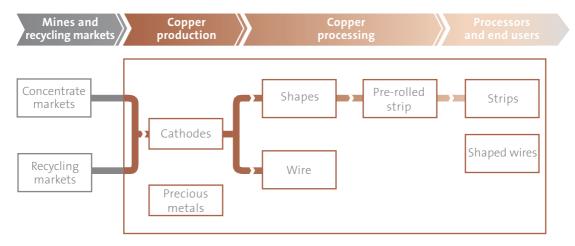
in copper production and copper processing. Direct customers include companies in the semi-finished product and cable and wire industries. The main customer sectors for copper are the electrical engineering and electronics industry, machine and plant construction as well as the building industry and traffic sector. The NA Group is oriented to long-term growth and increasing enterprise value. NA was founded in 1866 as a joint stock corporation with investments held by Norddeutsche Bank and Allgemeine Deutsche Kreditanstalt in Hamburg. After changes in the ownership structure, the IPO took place in 1998. NA shares are currently listed in the Prime Standard of the MDAX. NA has also been listed in the European STOXX 600 since September 2008. NA has additionally been admitted to the "Global Challenges Index" of the Hanover Stock Exchange, a sustainability index with strict criteria as regards the environmental and social responsibility of companies. The NA Group includes several subsidiaries and affiliated companies as well as the Belgian copper group Cumeria, an important producer of

copper cathodes, copper wire rod and shapes, which was acquired in April 2008. Today, we have some 4,700 employees in our 12 production sites in seven European countries.

copper Production At NA we produce copper cathodes out of copper contentrates and recycled raw materials. Both types of raw materials are bought on the international markets; recycled raw materials are also procured on the domestic market. Our earnings are largely determined by treatment and refining charges that are agreed with raw material suppliers as the processing fee. Our copper cathodes fulfil the very high quality requirements of the metal exchanges. The Copper Production Segment also covers the production of precious metals, sulphuric acid, iron silicate products as well as metal and chemical products from the by-elements of copper in the raw materials.

**COPPER PROCESSING** As an integrated copper group, we continue the copper value chain in this business segment and process our copper cathodes into a variety of copper products. In the first processing stage, we process the cathodes into continuous cast wire rod for the cable and wire industries and cakes and billets for the market and for processing further internally, i.e. into prerolled strip, strips and shaped wire at our group production sites in Stolberg. Our revenues in the Copper Processing Segment are determined by earnings that reflect the value added.

Market Competence in Copper Production and Copper Processing



#### BASIS OF OUR SUSTAINABILITY REPORTING

Norddeutsche Affinerie (NA) has been publishing reports on its activities in the environmental protection sector since 2002. We extended the environmental reports for the first time in 2005 with aspects of our commitment for people. NA is now publishing its first extensive sustainability report in 2008. We wish to inform the community — above all our customers and shareholders — how sustain-ability is being practiced in the various sectors. In doing so, we wish to elaborate on what we actually do for the employees, the environment and the community.

In our sustainability reporting, we are orienting ourselves to the internationally accepted guidelines of the Global Reporting Initiative (GRI G 3) as well as the supplement for our industry "Mining & Metal". Unless stated to the contrary, the report is related to NA AG with its sites in Hamburg and Lünen and covers fiscal year 2006/07. In some instances, relevant activities before and after the reporting period have been included.

In order to show the trend in key figures, we have given these, when possible and sensible, dating back to 1990. The key figures have been collected and evaluated in the specific computer systems of the respective sustainability-relevant sectors.

We wish to expand the consolidation framework in future and expand our sustainability reporting to cover the whole of the NA Group. A summary of the sustainability activities of Cumerio which we acquired in 2008 has already been included in this report

The report is available in German and English. You can also download it from our website www.na-ag.com as PDF. We expect to publish our next sustainability report for 2009 as a website in the internet.

Further information on the individual topics related to sustainability is given in our annual report 2006/07 and in the environmental statement of NA AG published in August 2008.

Further
information on
the topic of the
Consolidated
Environmental
Statement at
www.na-ag.com/
konzern/
Environmental\_
Statement\_2008.



#### Key figures of NA AG related to sustainability

		Fiscal Year 2005/06	Fiscal Year 2006/07
Revenues	€m	5,508	6,060
Taxes on income	€m	47	91
Expenditure on research and development	€m	3.7	3
Capex on environmental expenditure	€m	7.2	20.1
Average number of personnel	$(\varnothing)$	2,425	2,443
Personnel expenses	€m	150	177
Percentage of apprentices	%	8.2	7.8

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#### FOREWORD OF THE EXECUTIVE BOARD

#### DEAR READERS,

I am pleased to be able to present you with the first Sustainability Report of Norddeutsche Affinerie AG (NA) today.

NA is a performance-oriented company that actively pursues environmental protection and is regarded as an attractive employer and a good neighbour at all its production sites.

Sustainability is an elementary part of our corporate policy. Thus, NA has taken a leading position in environmental protection when compared internationally. As the largest copper recycler worldwide, we make a significant contribution, for example, to conserving the raw material base and consequently save valuable energy.

Climate protection is an important corporate target at NA. For example, therefore, as the first Hamburg company, we participated in the climate protection concept of the Hamburg Senate in August 2007. We have committed ourselves to reducing CO<sub>2</sub> emissions at the Hamburg site by 40,000 tonnes p.a. by 2012. We are very proud that we have already succeeded in achieving more than 50 % of this potential reduction already (saving of 22,000 tonnes of CO<sub>2</sub> p.a.).

At NA, sustainability also covers the social components in particular. These include not only the commitment for our employees, but also for the community in which we operate. We are, for instance, involved in the schools in the immediate vicinity of the sites of Hamburg and Lünen and help the young people on their way to starting their working life for the young people by supporting various schemes.

As a responsible organisation, we have committed ourselves on our own initiative to the continuous improvement of the health and environmental protection as well as the safety of our employees and fellow citizens. We wish to enhance our attractiveness as an employer further.

To achieve this, we are continually striving to implement solutions to the great social challenges like climate change, shortage of resources and demographic change. We are doing our utmost to ensure that future generations will find a future worth living. And we benefit from that as a company as well: we secure the future of our company by sustainable development.

The purpose of this report is to give you an overview of how we are committing ourselves for mankind and the environment. We wish to show you how sustainability is being put into practice at NA.

I hope you will enjoy reading this.

Peter Willbrandt,

Pet WHaL

Member of the Board, responsible for the Primary Copper Production and **Environmental Protection Sectors** 

October 2008



Peter Willbrandt, Member of the Board

#### SUSTAINABILITY IN FISCAL YEAR 2006/07 - HIGHLIGHTS

#### **Health management:**

NA's health management system is commended as one of the best 10 in Germany by the Handelsblatt. P. 53



OCTOBER 2006

### Promoting talented young people:

NA opens its doors to the Technical University Day. About 600 schoolchildren are given information on engineering careers. P. 60



FEBRUARY 2007

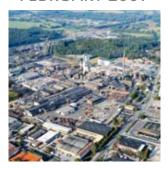
#### Research & development:

The pilot plant for the production of a flexible, copper-based CIS solar cell is completed. P. 17



**JULY 2007** 

#### FEBRUARY 2007



Environmental protection: In Lünen an ambitious concept to reduce emissions is agreed in collaboration with the authorities at a costs estimated at the time of some € 10 million. P. 24

#### **JUNE 2007**



#### Occupational safety: The new campaign "4 W's for occupational safety" to increase the employees' safety awareness is started. P. 54

#### Training:

NA presents the pilot project 9-Plus: 12 schoolchildren have the possibility of bridging the gap until they have an apprenticeship by completing a one-year training period. P. 59



**AUGUST 2007** 

#### **Transport safety:**

NA is awarded the 2nd prize from the Initiative Responsible Care for the development of two inland navigations vessels designed for the transport of sulphuric acid. P. 30



SEPTEMBER 2007

#### Sport sponsoring:

NA receives the SportMerkur award from the Chamber of Commerce for special achievements in sport sponsoring in 2007. P. 61



FEBRUARY 2008

#### **AUGUST 2007**



**Environmental protection:** 

NA presents a voluntary climate protection concept: the CO<sub>2</sub> discharge should be reduced at the Hamburg site by a further 40,000 tonnes p.a. by 2012. P. 31

#### **AUGUST 2007**



**Apprentices:** 

NA welcomes 67 new apprentices for 14 different trades and professions in Hamburg and Lünen. P. 44

#### **NOVEMBER 2007**

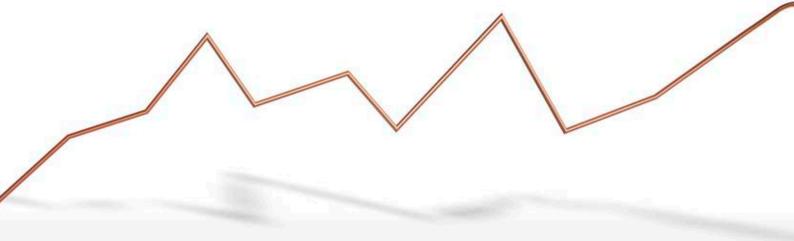


Compliance:

A Chief Compliance Officer (CCO) is appointed at NA to ensure that the company adheres to laws and directives. P. 8

### **CORPORATE MANAGEMENT**

SUSTAINABILITY AS A MANAGEMENT PRINCIPLE CORPORATE GUIDELINES CORPORATE GOVERNANCE COMPLIANCE RISK AND OPPORTUNITY MANAGEMENT STAKEHOLDER DIALOGUE AND MEMBERSHIPS



#### CORPORATE MANAGEMENT

Further information on "Sustainability as a management principle" at www.na-ag.com/NA\_ en/InvestorRelations/ corporate\_governance



#### SUSTAINABILITY AS A MANAGEMENT

**PRINCIPLE** The main goal of our corporate management is to increase NA's enterprise value. Sustainability is a central principle for securing the future of the entire NA Group. In the development of the NA Group, we orient ourselves in equal parts to the enhancement of productivity and efficiency, economic growth and our responsibility towards the environment and our employees.

**IMPROVEMENT** Our strategy is the continuous improvement in efficiency and productivity in the Group. This includes optimising production at all the sites and improving the value added chain, just as performance enhancement initiatives or the implementation of suggestions from the group-wide corporate suggestion scheme.

**GROWTH** We wish to enhance our good position in the international raw material, product and recycling markets by both internal and external growth. This includes the expansion of our core business in copper production and processing, continuing the consolidation of the European copper industry and launching on to regions with strong growth.

**RESPONSIBILITY** In order to achieve our corporate goals, we are focusing to a great extent on the good relations with our customers, our employees' know-how and commitment as well as our responsibility towards the environment and the community.

#### Further information on "Strategy and goals" in the

Annual Report of the NA Group 2006/07, Page 54 ff.



### Strategy and goals of the NA Group Cost reductions Performance enhancement • Development of know how Quality increase Expansion of the core business New products Internationalisation Consolidation of the industry RESPONSIBILITY · Further education/employee training

- Conservation of resources
- Occupational safety/health protection
- Environmental/climate protection

**COMPANY GUIDELINES** We have compiled the following principles to make us always aware of our responsibility towards mankind and the environment. These should guide us in our daily work:

- 1. To further develop environmental protection, health protection and occupational safety on our own responsibility in such a way as to avoid or reduce to a minimum the burdens on the environment and our employees.
- 2. In planning and developing new products and production processes, to take into account the special requirements of environmental and health protection and occupational safety.
- 3. To return as completely as possible to the economic cycle the processed raw materials and intermediary products, to dispose of unavoidable waste without causing harm and to encourage our raw material suppliers to mine ore in an environmentally safe manner.
- 4. To reduce the use of primary energy within the constraints of what is commercially justifiable and to recycle waste in order to conserve finite resources.
- 5. To avert danger to our employees, our neighbours and the environment by taking essential precautions and to avoid accidents and operational disruptions and yet at the same time to restrict to a minimum the impacts of any accidents or disruptions that may nevertheless occur.



Norddeutsche Affinerie AG in Hamburg

- 6. To boost a sense of responsibility in our staff and to conduct a frank and objective dialogue based on trust with them as well as with the responsible authorities and the general public.
- 7. To give our clients a suitable briefing on the properties of our products and essential safety measures and to advise them on questions regarding product disposal.
- 8. To select, inform and advise external companies and carriers acting for us to guarantee the adherence to legal regulations and our own standards on environmental protection, health protection and occupational safety.

#### Further information on Corporate Governance at

www.na-ag.com/NA\_ en/InvestorRelations/ corporate\_governance



**CORPORATE GOVERNANCE** Corporate governance stands for transparent and responsible corporate management and is based on general rules of conduct for the management as well as for the employees. This type of corporate management has always been attributed great importance throughout the entire NA Group. It also makes a decisive contribution to increasing enterprise value.

The company complies with the recommendations of the Corporate Governance Code which was established in Germany in 2002 with the following well-founded exception: the consolidated financial statements continue to be published within 120 days of the end of the fiscal year. Since the company's fiscal year differs from the calendar year, adherence to the 90 day time limit recommended by Section 7.1.2, sentence 3 of the German Corporate Governance Code would mean that the consolidated financial statements were published during the public holiday period at the end of the calendar year, and would therefore receive insufficient attention.

The current as well as earlier declarations of conformity with the German Corporate Governance Code remain available on the company's website for five years.

An amended group-wide corporate governance structure has been compiled since the acquisition of the Belgian company, Cumerio, in April 2008.

**COMPLIANCE** The compliance with statutory directives and internal guidelines is attributed great significance at NA, because illegal actions can cause all manner of damage and result in regulatory offence and criminal procedures. Additionally, there is also the danger of damage to the group's reputation and thus damage to its market position.

Since NA's actions are performed by its employees, each employee is obliged to comply with

the applicable law. NA has compiled a Code of Conduct in order to give the employees guidelines for law-abiding behaviour. The principles included apply, in particular, to dealings with customers, suppliers, other companies, shareholders, authorities, other employees and superiors and, apart from prohibiting anticompetitive behaviour and corruption, cover the compliance with anti-discrimination laws, directives for product and occupational safety as well as environmental protection.

Compliance with legal requirements and the Code of Conduct as well as the prevention of corruption and dishonest activities are ensured by prevention, controls and sanctions. Preventive measures are internal guidelines, the briefing and above all the training of employees. For example, employees take part regularly in seminars on topics related to restrictive practices and environmental legislation. The group audit from an independent body is subject to controls, which examine whether the legal requirements and internal guidelines are being observed. Labour and criminal law related sanctions are put into force in the event of violations of laws, internal guidelines or the Code of Conduct.

In November 2007 NA appointed a Chief Compliance Officer (CCO) in order that the high demands resulting from the legal requirements and Code of Conduct can be fulfilled even better. The CCO briefs the Executive Board and the Audit Committee of the Supervisory Board about his activities.

### Further information on Compliance at www.na-ag.com/NA

www.na-ag.com/NA\_ en/InvestorRelations/ corporate\_governance/ verhaltenskodex.html



#### RISK AND OPPORTUNITY MANAGEMENT

Since NA's economic environment is influenced by increasing globalisation and dynamics, we are observing the resultant impacts on NA as well as the general business activity so as to anticipate them within the framework of our risk and opportunity management system.

Both risks and opportunities are systematically and continuously identified, evaluated and actively monitored. In doing so, the considerations focus on the raw material supply, production, sales, funds and energy supply sectors

Risk and opportunity management is a company management task that reports directly to the Chief Financial Officer. The action taken is based on the risk policies defined by the Executive Board. Independent targets and risks are identified in each main sector and the respective monitoring and control instruments assigned to them. Apart from monitoring potential risks at the departmental level, the development of risk-relevant aspects is also evaluated in regular management meetings. The direct contact between the departments and risk management and the support of the internal auditors as well as the collaboration with the CCO additionally improve the identification and controlling of new risks.

The entire risk management system is documented in a form that can be audited and is subject to regular review, when we also take newly identified risks into account.

#### STAKEHOLDER DIALOGUE AND MEMBERSHIPS

For NA, responsible corporate management also means always being outgoing as regards the stakeholders. Our stakeholders are all those groups to which we have a direct or indirect relationship through our business activities: our employees, neighbours, customers, business partners, capital investors, decisionmakers from politics and industry and the media. We pursue an open and continuous dialogue with all stakeholders. First and foremost, the active exchange is beneficial for both sides. This includes personal discussions just as forums or events.

The dialogue with the stakeholders opens up valuable opportunities for NA. Risks and potential from the business activities can be identified early on; long-term growth and value added are helped in this way. Open discussions also offer us the possibility to correct or to avoid errors, as required. Likewise, the purpose of the dialogue is to communicate our actions transparently and their repercussions for our business operations. That creates trust on all sides.

We feel particularly committed to our employees and neighbours. Transparency in communication with the people in the vicinity of our sites is a matter of course. In September 2006, for example, we opened our works gates to receive our neighbours and residents in Hamburg: 800 people accepted the invitation to the neighbourhood day. The company took the opportunity to satisfy its listeners that NA fulfils the highest standards as regards environmental protection, the conservation of resources and energy efficiency and sets benchmarks worldwide.

Further information on risk and opportunity management in the Annual Report of the NA Group 2006/07.

Page 99 ff. and at www.na-ag.com/NA\_en/ InvestorRelations/ corporate\_governance/ risiko html

On top of this, NA's financial market activities also focused on the intensive communication with institutional and private investors as well as the media. Contact to the private investors, who hold some 40 % of NA's subscribed capital, is also attributed special importance since they have a mainly long-term investment horizon. Our information events "Dialogue with the shareholders" were fully booked out despite organising an extra date.

The acquisition of the Belgian company, Cumerio, in April 2008 presented us with the challenge of integrating additional interests and requirements in our corporate perspective. Corporate communications therefore focused on the merger and integration process of the Belgian company together with its production sites in Belgium, Bulgaria, Italy and Switzerland.

**MEMBERSHIPS** We want to help shape the future. As a result, NA has committed itself to sustainability in its numerous memberships. NA has been an active member of the global initiative Responsible Care since 1999. This stands for the chemical industry's wish to achieve continuous improvement in the companies in the environmental, safety and health sectors, regardless of legal requirements, and to disclose this progress regularly to the public domain.

In addition, we are involved in numerous national and international industrial associations by providing our expertise for sustainability-relevant topics. These associations also represent our interests as regards policies and legislation. In fiscal year 2006/07, the political work of the associations focused inter alia on the implementation of the European chemical law REACH as well as the energy and environmental policies.



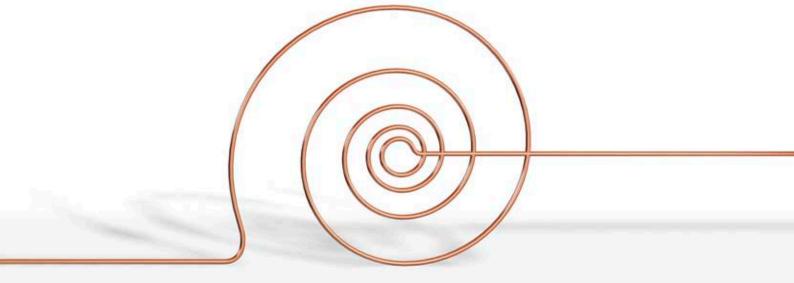
NA in dialogue: Stock Exchange Open Day in the Hamburg Chamber of Commerce

#### Here is a selection of our memberships:

Organisation	Assignments	
Bundesverband der Deutschen Industrie e.V. (BDI)	Umbrella organisation for industrial enterprises and industry- oriented service centres in Germany	
ChemieNord	Employers' federation for the chemical industry in Northern Germany	
Deutsches Kupferinstitut (DKI)	Technical/scientific information centre for the copper industry	
EUROMETAUX	Umbrella association for the European non-ferrous metal industry and mines and mining interests	
European Copper Institute (ECI)	Lobby of the global copper mine operators as well as the European copper industry	
Fachvereinigung Edelmetalle	National lobby of the industrial concerns of the fabricators and producers of precious metals, e.g. as regards environmental protection and exports	
Gesellschaft für Bergbau, Metallurgie, Rohstoff- und Umwelttechnik e. V. (GDMB)	Technical/scientific engineering association which is concerned with the extraction, processing and recycling of raw materials as well as aspects of environmental technology in this connection	
Handelskammer Hamburg	Lobby for companies located in Hamburg as regards politics, administration and publicity	
Industrie- und Handelskammer zu Dortmund	Lobby for regional industry in the Westphalian Ruhr area	
International Copper Association (ICA)	Lobby for the international copper industry	
International Wrought Copper Council (IWCC)	Lobby for the international copper producers	
IVH – INDUSTRIEVERBAND HAMBURG E.V.	Legally independent Hamburg lobby of BDI representing Hamburg industry and the Hamburg region	
UVNord	Assocation of industrial federations in Hamburg and Schleswig-Holstein, member of the Federation of German Employers' Associations (BDA); in addition the BDI's regional representation for Schleswig-Holstein	
Verband der Chemischen Industrie e. V. (VCI)	Lobby for German chemical companies and German subsidiaries of foreign organisations as regards politics, authorities, industry and the media	
Verband Deutscher Metallhändler e.V.	Lobby for the German metal industry	
Verein Deutscher Ingenieure e.V. (VDI)	Lobby for engineers and natural scientists in Germany	
WirtschaftsVereinigung Metalle (WVM)	Lobby for German producers and processors of the non-ferrous metal industry, inter alia, in energy policies; member of the BDI as well as the umbrella organisation European metal industry, EUROMETAUX	

### **PRODUCT RESPONSIBILITY**

COPPER: THE MATERIAL OF THE FUTURE QUALITY MANAGEMENT RESEARCH & DEVELOPMENT



#### PRODUCT RESPONSIBILITY

### Further information on recycling at

www.na-ag.com/NA\_ en/recycling



#### **COPPER: THE MATERIAL OF THE FUTURE**

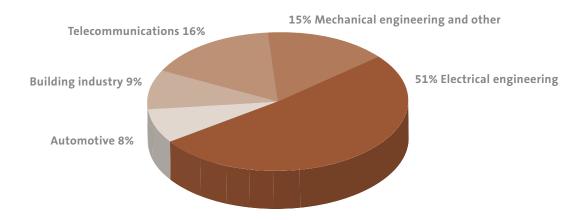
In our society, quality of life and progress mainly depend on the use of suitable base materials. The most popular are, above all, those with a variety of physical and chemical properties that must be available and tailor-made for numerous product applications – copper is exactly that. The "red metal" has gone a long way since its prehistoric beginnings as a raw material for the production of objects in daily use. Nowadays the metal of the future, copper, is used not only for traditional applications, but is in particular an integral part of state-of-the-art technologies. Copper is the base material for energy production and transmission, e.g. in electrical engines, computer technology, communications, medicine, air conditioning, etc.

The international copper industry again recorded dynamic growth in demand in fiscal year 2006/07. The demand for copper continued to be significant for the expansion of the infrastructure, above all, in the emerging markets. In the industrial nations, copper has maintained its position as the material of modern life and in some instances enhanced this.

With its business, NA ensures that not only European industry is supplied long-term with this valuable metal, which is elementary for economic development. Copper is practically inexhaustible as a resource since it can be recycled again and again without loss of quality. NA has made a business model from copper's ideal recyclability and extraordinary eco-efficiency of copper: more than 40 % of NA's copper production is based on the processing of recycled materials – a yardstick that has yet to be equalled in the copper industry. To this end, we commissioned the special Kayser Recycling System (KRS) at the Lünen site in 2002. In the KRS, converter copper is produced from various recycled materials, such as copper-bearing residues, alloys and electronic scrap, which is subsequently processed into high-purity copper in the anode furnace and in the tankhouse

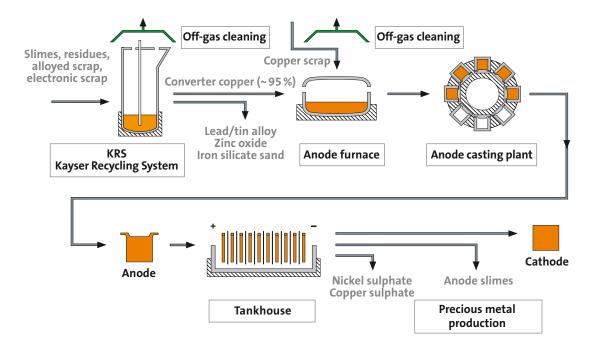
#### NA AG's sales structure by industries

in fiscal year 2006/07



#### From the copper recycled material to the cathode

at the Lünen site



**QUALITY MANAGEMENT** As an indispensable metal for our modern life, the quality demands for the material are correspondingly high. NA offers its customers top quality and reliability in delivery. All along the production chain from the raw material to the finished product our quality management has the foremost goal of ensuring high and long-term customer satisfaction. This also includes the sensitive handling of the data received from customers and suppliers within the framework of an internal guideline. Our quality management system is certified in accordance with the international standard ISO 9001.

We collaborate with our customers on the basis of intensive research and development work to find new solutions and products along the entire value added chain. This enables us to create the basis for opening up new markets.

With our acknowledged competence and customer orientation, we are optimally placed in the copper business to meet the increasing demands of the future.

### Further information on R&D in the

Annual Report of the NA Group 2006/07, page 72 ff. and at www.na-ag.com/NA\_en/ konzern/f e



**RESEARCH & DEVELOPMENT** The ability to be innovative along the whole of the copper value chain is of great importance to us. It ensures that we will keep our technologically strong position in future and enhance it further. To achieve this, we restructured the group sector Research & Development (R&D) in 2007. It now includes the core sectors of our value added: copper production, recycling and copper products.

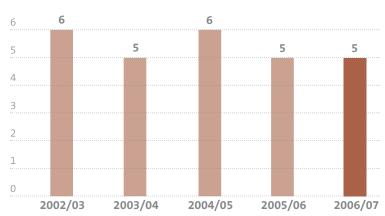
The main tasks of R&D are to be found in the copper production sector, in the continuous improvement of processes and process technology in the treatment of primary and secondary raw materials for the production of copper, precious metals and chemical products. The adjustment to the permanently changing requirements of the raw material and product markets will play an important role here in future. The main goals in this sector include achieving increased productivity and flexibility, improving quality and conserving resources.

In the copper product sector, the main tasks are the development and optimisation of our copper semi-finished products. These are tackled jointly with the Product Technology and Quality Department. Here again we respond to the changing requirements of the market. We develop new products adapted to customer requirements and improve the properties of existing products.

All work is performed by our own employees in close collaboration with the production sectors. The R&D team consisted of 25 employees in fiscal year 2006/07, most of whom work at the Hamburg site. There are plans to enlarge the team in order to work successfully on the growing number of projects. In 2007 we intensified the cooperation with universities further and intend increasing this. Expenditure at NA AG on R&D amounted to some € 3 million and focused largely on projects to optimise processes. We spent € 5 million in total on R&D in the NA Group as a whole.

#### Expenditure in the NA Group on Research & Development

in € million



» CIS SOLAR CELL PROJECT: COPPER USED FOR **SOLAR TECHNOLOGY** Copper paves the way for sustainable development, e.g. in power generation: all the respective systems in alternative energy supplies need this metal so as to transfer the energy produced with minimal loss. NA, as a producer of this valuable material, has discovered this attractive business area for itself. The development of innovative technology has enabled NA to forge ahead beyond the metal's classic application into this interesting business area and in this way is opening up the future market of renewable energy.

A draft project was set up in 1999 with the participation of researchers from the Institute of Solar Energy Research (ISFH) and a solar specialist. The specially established company, CIS Solartechnik GmbH, was instructed to develop a flexible CIS thin-film solar cell. CIS stands for copper (Cu), Indium (In) and Selenide (Se). The thin-film solar cell needs less semiconductor material and energy in production compared with conventional silicon solar cells. This reduces not only the production costs, but also improves the environmental balance of CIS solar cells compared with present-day solar cells.

After successful completion of the feasibility study (laboratory prototype), a pilot plant was designed in order to work on the technical processes. The pilot plant was ready for operation in 2007 to bring the project up to market matu rity. After the pilot phase we plan to build a production plant in North Germany. Seventeen employees are currently working on the project, many of whom were recruited in fiscal year 2006/07.



Maria Mihhailova, chemical/technical assistant at CIS Solartechnik GmbH (50 % subsidiary of the NA Group)



Pilot plant for the production of flexible copper-based CIS solar cells

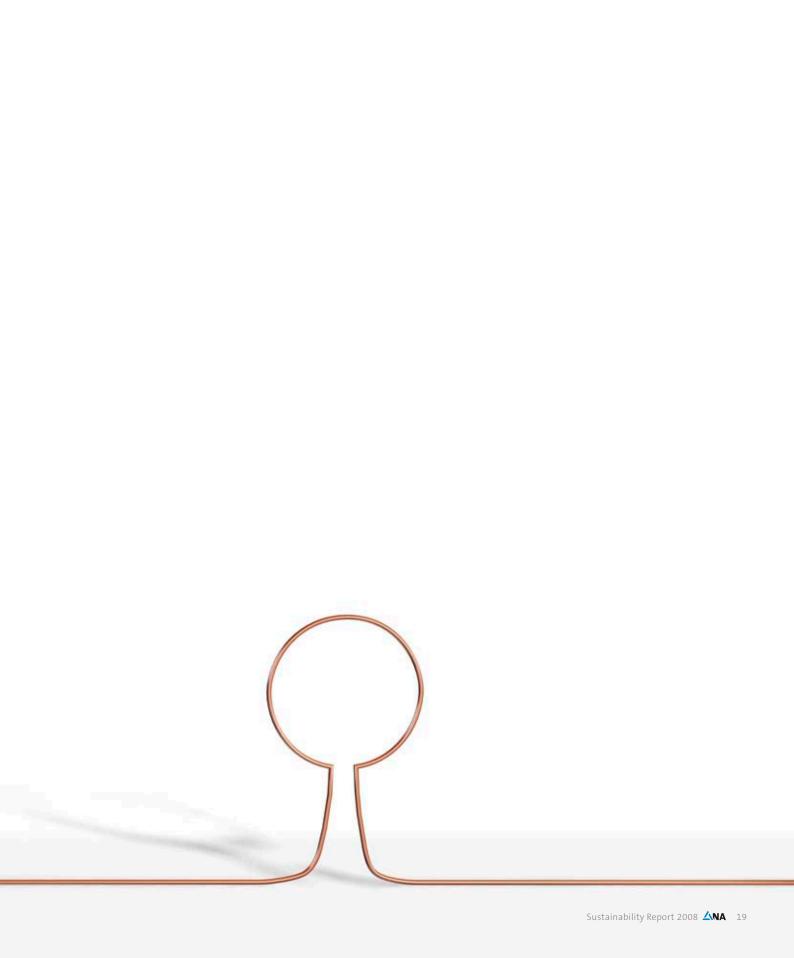
#### Further information on CIS solar cells in the

NA Group Annual Report 2006/07, Page 73 and at www.cis-solartechnik.de



### **ENVIRONMENTAL PROTECTION**

ENVIRONMENTAL PROTECTION ON OWN INITIATIVE ENVIRONMENTAL MANAGEMENT SYSTEM IN-HOUSE ENVIRONMENTAL PROTECTION CLIMATE PROTECTION IN DISCUSSION: REACH – THE EU'S NEW CHEMICAL LAW INTERVIEW – ENVIRONMENTAL PROTECTION AT NA PROCUREMENT POLICY



#### **ENVIRONMENTAL PROTECTION**

#### **ENVIRONMENTAL PROTECTION ON OWN**

**INITIATIVE** At NA, environmental protection has traditionally accounted for an elementary part of our business operations. Throughout the group, NA pursues a consistent environmental policy, the high standard of which has meanwhile been assured for several years by environmental management systems like EMAS and DIN EN ISO 14001.

We aim at a high standard of environmental protection by investing in state-of-the-art technologies. In doing so, we continue to develop our environmental protection and plant technologies and are pioneers in the development of new technologies.

In the environmental protection sector, priority is given to the conservation of resources by recycling and, as far as possible, the total utilisation of raw materials in the conversion process into new products. We also work continuously at reducing emissions. Our plants are operated in such a way that emissions are far below the legal limit values. In addition, we pursue efficient energy utilisation and the continuous reduction of potable water consumption.

Beyond compliance with the legal requirements, voluntary commitments also represent important instruments for the continuous improvement of the company's performance in environmental and health protection.

We are also aware of our responsibility for the indirect impact on the environment resulting from our business operations. These are those that are not caused by our production processes directly at the site and cannot be influenced by us — e.g. by our input materials and products in the upstream and downstream value added stages as well as the transport of hazardous materials performed or contracted by us. Not without reason has our commitment to environmental protection resulted in the leading

position we hold worldwide. Our incentive for the future is to maintain and enhance this further

**HIGHLIGHTS OF OUR ACHIEVEMENTS IN FISCAL YEAR 2006/07** We succeeded in improving our performance in all sectors of environmental protection:

- Resources: We are the copper industry leader in copper recycling. Water and energy consumption could be reduced long-term, for instance, in Hamburg due to the economical and efficient use of this resource.
- Emissions: Dust discharged during copper production could be reduced by targeted investment in suction and filter technologies and further investment projects to collect fugitive emissions were started.
- Climate protection: We were the first company to participate in the climate protection concept of the Hamburg Senate and thus set another important milestone for climate protection.
- REACH: We have followed in detail the new chemical law REACH through the decisionmaking process and implemented it successfully in our organisation after its enforcement. We are now supporting in particular small and medium-sized companies in the implementation in the Hamburg REACH network.

**CHALLENGES AND TARGETS** The climate change above all has presented us with challenges for the future. With our consistent commitment for climate protection, we wish to make a contribution to keeping the world livable in future as well.

### Further information on targets in the Consolidated Environ-

mental Statement of NA AG 2008, pages 22 f. and 32



This especially includes our endeavours to increase energy efficiency in the plants. The reduction of fugitive emissions from the plants as well as from the handling and storage of raw materials represent another challenge. This is solved by the implementation of a corresponding investment plan for the development and application of new environmental protection and plant technologies at NA.

Moreover, we attribute great significance to the work on the committees of national and international bodies, which we wish to consolidate in future and enhance even further.

#### **ENVIRONMENTAL MANAGEMENT SYSTEM**

The environmental management system helps us to operate production processes safely in terms of sustainable development. In particular, targets and action to be taken are defined and their implementation monitored. The environmental management systems include inter alia documentation on production processes, external environmental audits, internal audits, regular measurements and inspections of the production sectors. These form the basis for decisions about the type, scope and appropriateness of environmental protection measures and how they are to be carried out.

Our environmental management system documents that the applicable legal requirements of environmental protection are being fulfilled. It should also support the continuous improvement of our environmental protection by economically justifiable production and process organisation that is compatible both from the environmental and occupational safety aspects. The efficiency of our environmental management system is audited and confirmed each year by external verifiers. The systems and the organisation of environmental management and health protection are described in detail in a comprehensible manual that is available for all employees. The management manual ensures

that all activities, the environmental aspects and matters pertaining to occupational safety are planned, organised, monitored and continuously improved while adhering to the legal requirements.

#### ORGANISATION OF ENVIRONMENTAL MANAGE-

**MENT** The Executive Board or the nominated member of the Executive Board of Norddeutsche Affinerie AG, as the operator of facilities requiring authorisation in accordance with Section 52a of the Federal Ambient Pollution Control Act and Section 53 of the Waste Avoidance. Recycling and Control Act, is responsible for the adherence to environmental protection and radiation protection directives. The function of the environmental management officer is covered by the Head of the Environmental Protection Department in Hamburg. In Lünen, this is the site officer for environmental protection. Both report to the Executive Board. In addition, a report is given to the works manager. As part of the environmental management system, the Environmental Protection Department follows the changes in legal requirements, examines their impact on the different sectors of our company and monitors the legally compliant operation of our plants. In addition, it ensures that the legal directories are updated and that the employees receive information and training. At the Lünen works, the environmental management is combined with the quality management in the Total Quality Management (TQM) System. Officers have been appointed by the Management for the individual sectors. These have the task of supporting the Executive Board, the production sectors and the employees by briefing and advising them as well as in a cooperative and monitoring capacity. As a result of the acquisition of the Belgian copper producer Cumerio in April 2008, our environmental management system is being restructured. The aim is to harmonise the standards in environmental protection. Comparable key figures should be identified and determined on a uniform basis.

Further information on work in the committees on



MONITORING AND INTERNAL AUDIT OF ENVIRONMENTAL MANAGEMENT Internal and external audits are performed each year in accordance with the requirements of EMAS and ISO 14001 respectively. The efficiency of the environmental management system is examined by internal audits in accordance with the EMAS directive and ISO 14001. The procedure for the internal audits is stipulated in specific process instructions. The external audits include the verification of the description of production processes, the audit of the prepared environmental data as well as the integrity of the environmental management system in practice.

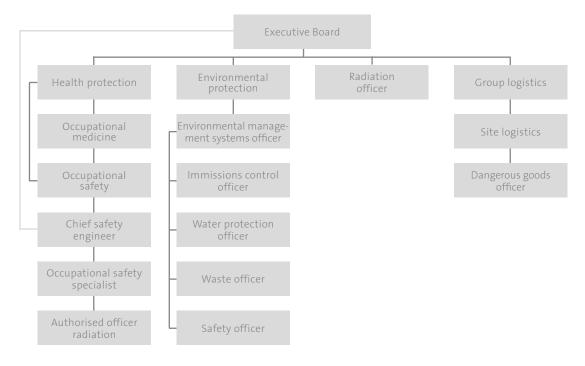
The results of the eco-audit and the internal audits are combined in a report and presented to the Executive Board for assessment (management review).

The Executive Board assesses to what extent the management system is suitable, reasonable and effective and whether it successfully implements our principles for environmental protection, health protection and occupational safety. The environmental management system and the annual environmental statement have been externally audited for our Lünen and Hamburg sites since 1997 and 2002 respectively.

#### **MANAGEMENT OF EMERGENCIES AND CRISES**

Emergency plans have been defined for emergencies and accidents. They describe how to react in each case in order that an impact on the environment can be effectively prevented or limited.

### The organisation of environmental protection and health protection at NA AG (Status 2007)



In collaboration with the responsible authorities, we have compiled a main control plan for the use of the alarm system, which incorporates emergency procedures for our works. In addition, plans for the use of the alarm system and for averting dangers exist for the individual production sectors. These documents are compiled by the works fire brigade or by the respective sectors in collaboration with the Environmental Protection Department and are binding for all parties involved in the emergency. We regularly carry out mock emergency drills to ensure that our emergency plans and procedures function well. These drills are documented and evaluated. In addition, the Hamburg and Lünen works fulfil the requirements of the Hazardous Incidents Ordinance.

**CREATION OF EMPLOYEE AWARENESS** We hold regular seminars in order to alert our employees to environmental issues. We have planned an annual seminar for production managers and plant superintendents to brief them on the legal situation and the correct fulfilment of directives and the consequences in the event of non-compliance. All the employees are reached in this connection by displaying the environmental statement in the production sectors and having the environmental manual with the relevant instructions acces-

#### CAPITAL EXPENDITURE ON ENVIRONMENTAL

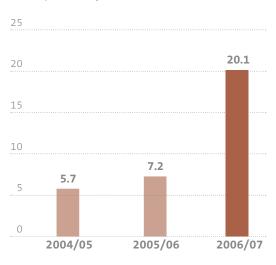
sible in the intranet.

**PROTECTION** The prerequisite for long-term environmental protection is capital expenditure on state-of-the-art environmental and plant technologies. Consequently, in recent years, we used on average about a third of our total capital expenditure for environmental protection measures. Total capital expenditure in Hamburg has amounted to € 845 million since 1981, of which € 269 million were spent on environmental protection. This puts NA in a leading position with regard to environmental

protection in the production and processing of copper. The success of this investment is reflected, above all, in the significant reduction of emissions and energy consumption.

#### Capital expenditure on environmental protection at NA AG

in €m per fiscal year



#### IN-HOUSE ENVIRONMENTAL PROTECTION

In-house environmental protection focuses on the avoidance of environment-relevant emissions, the conservation of resources, the efficient use of energy and the avoidance of waste. In doing so, we give all the environmental elements equal consideration – air, water and soil

**EMISSIONS TO THE AIR:** Ultrafine dust arises during copper production of which copper is the main metal component. As a result of considerable capital expenditure on special suction and filter technologies, we have managed to reduce both the specific copper emissions and the lead and arsenic emissions as well as sulphur dioxide emissions contained in the dust by a total of 80 % since 1990. Compared with other European copper smelters, we have, for example, therefore also achieved the lowest specific sulphur dioxide emissions.

#### Further information on capital expenditure in the

Consolidated Environmental Statement of NA AG 2008 on pages 12 and 25

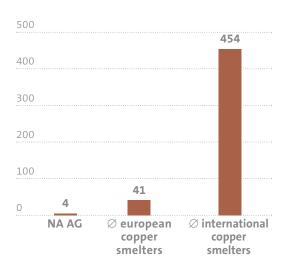


#### **Further information on** emissions to the air in the

mental Statement of NA AG 2008, on pages 13 ff. and 26 ff.



In fiscal year 2006/07, we again invested significantly in state-of-the-art environmental protection technologies to reduce emissions. Storage surfaces are being moistened, for example, to avoid fugitive emissions, completely new storage facilities built and new filter technologies installed. Apart from the considerable reduction in emissions at our sites and thus resultant improvement in ambient air quality in the vicinity, the measures have also improved workplace conditions. In order to reduce emissions further at our Lünen site, an ambitious concept to reduce emissions was worked out with the authorities from 2005 to 2007. The programme's original investment volume of € 10 million was increased in the following years. In Hamburg, a further project to enclose and suck off fugitive emissions at the anode furnaces and the casting machine in the primary smelter is currently being implemented with an expenditure volume of about € 7 million. The collection of fugitive emissions will result in a further 70 % decrease in emissions from this sector.

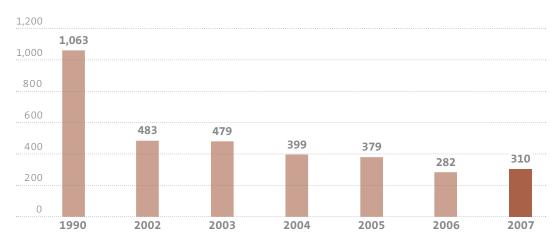


### In comparison: SO<sub>2</sub> emissions of the copper smelters

in kg SO<sub>2</sub>/t of copper output p.a.; Status 2006

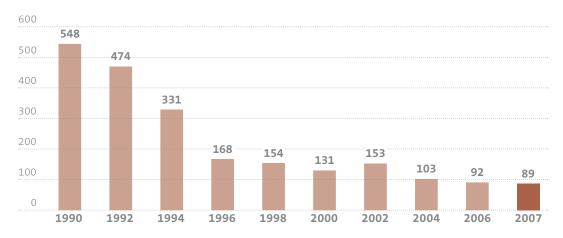
#### Trend in dust emissions at NA AG, Lünen

in g/t of copper output p.a.



#### Trend in dust emissions at NA AG, Hamburg

in g/t of copper output p.a.



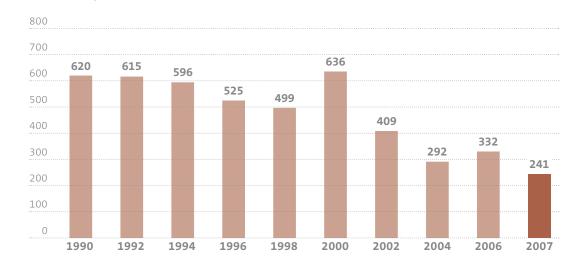
Emissions to water bodies: Water is used, for example, for cooling purposes in copper production and processing. We have achieved excellent results in reducing potable water consumption and the reduction of emissions to water bodies. The metal discharged with wastewater into the Elbe was kept at a low

level after the optimisation of various processes in 2007 while production increased at the same time. In addition, all the precipitation collected at the Hamburg works – some 650,000 m³ p.a. – is used and cleaned.

#### **Further information** on emissions to water bodies in the

mental Statement of NA AG 2008. pages 16 ff. and 30

#### Potable water withdrawal at NA AG, Hamburg in 1,000 m<sup>3</sup> p.a.



While the withdrawal of potable water at the Hamburg site is at a low level, it rose at the Lünen site in 2007, which is primarily due to the increased production..

At the Hamburg site we installed a treatment plant for river water (NAqua) in 2002, which enables us to reduce the withdrawal of fresh potable water. In addition, we have performed a variety of measures to increase efficiency. In Lünen, a new wastewater concept is currently being planned that permits the collection and use of rainwater and thus reduces potable water consumption.

**Emission to the soil:** On principle, we do not use protected areas with high biodiversity. Consequently, NA AG practises soil conservation at its sites. Typical soil contamination arises at our works sites on account of the many years of industrial use. We counter the mobilisation of contamination by paving and tarmacing.

### Water withdrawal – Wastewater discharge at NA AG, Lünen

in m³ p.a.

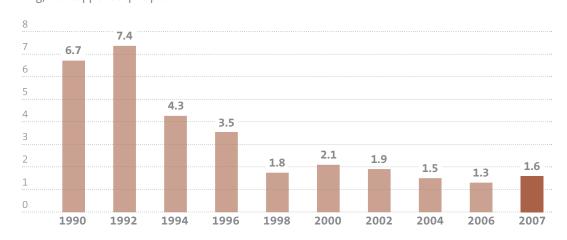
	2006	2007
Water withdrawal	480,000	509,000
Wastewater discharge	115,000	122,000

We have also planned to keep and extend the green areas in our works precincts. The action we are taking is on the understanding that two new trees will always be planted for each tree chopped in an NA AG works area. NA AG has worked out a rehabilitation plan for the Lünen site, in which the authorities are participating. A thorough examination of the soil quality at the Lünen site has identified inherited pollution as a result of its continuous use since 1916 for non-ferrous metal production in combination with war damage. A pilot plant for cleaning groundwater was designed in 2007 and commissioned in 2008.

#### Further information on emissions to water bodies in the Consolidated Environmental Statement of NA AG 2008, pages 18 and 30



### Metal freights discharged with wastewater into the Elbe at NA AG, Hamburg in g/t of copper output p.a.



#### Waste yield at NA AG, Lünen

in tonnes p.a.

	2006	2007
Packaging and other waste	980	1,459
Waste from construction measures	4,844	1,937
Spent furnace lining	2,139	1,788
Slag granulate (market part as waste)	4,158	0
Products for sale and disposal/ material prepara- tion plant	4,900	8,688

Avoidance of waste: Copper production is NA's core business. Other metals, iron silicate stone and chemical like sulphuric acid are also extracted in the production of copper cathodes from copper-bearing raw materials – copper concentrates or recycled materials. By using

state-of-the-art process technology, we aim at converting, as far as possible, all the delivered raw materials into saleable products. In this way NA recovers not only copper from electronic scrap, but also precious metals, such as gold, silver and platinum group metals. The NA Group is one of the largest precious metal producers in Europe due to its targeted procurement and preparation of precious metal bearing secondary raw materials, such as lead bullion, sweeps, catalysts, slag or slimes. In total, the waste yield at NA, which mainly consists of rubble from construction or demolition measures and the packaging of delivered material, has stagnated for years at a low level. All data in connection with waste are notified to the responsible European authorities as part of a European guideline (PRTR = Pollutant Release and Transfer Register). We are always investigating possibilities for recycling materials. In 2007 we also managed to reduce the waste yield at NA further, above all on account of less demolition activities.

#### **Further information** on waste in the

Consolidated Environmental Statement of NA AG 2008 pages 18 and 30

#### Waste for dumping at NA AG, Hamburg in tonnes p.a.

30,000 27,332 25,000 20,000 15,391 15,000 14,433 12,761 12,039 11,673 10,085 10,000 8,444 5,745 5,000 4,564 1990 1992 1994 1996 1998 2000 2002 2004 2006 2007 Waste for above-ground disposal Domestic waste/ Arsenic-bearing waste/ Recycling (Construction activities) incineration (Construction Underground repository

measures)

#### **Further information on** iron silicate stone at

www.neute.de



#### Further information on climate protection in the

mental Statement of NA AG 2008, pages 18 ff.



#### » MARKETING OF SPECIALTY PRODUCTS -FOR EXAMPLE NA'S IRON SILICATE PRODUCTS

The NA Group produces and markets other important by-elements from copper production, inter alia iron silicate, as specialty products.

During the smelting process, iron silicate products are produced from the iron silicate melt in accordance with DIN 4301 in the form of granulate and stone. Peute Baustoff GmbH (PBG), a wholy-owned subsidiary of NA, processes the iron silicate stone into commercial, quality-controlled construction products. These have been successfully used for decades in hydraulic engineering, road construction and as a cement additive on the basis of the applicable EU and national regulations. Iron silicate stone products have environment-relevant advantages in addition to their excellent construction properties.

These construction materials have a consistent quality due to the continuous production. Each cubic metre of iron silicate stone replaces 1.4 m³ of rock from quarries and thus makes a valuable contribution to conserving resources.

In February 2007 a workshop was held together with PBG at NA in Hamburg on the use of iron

silicate stone in road construction, at which a representative of the Federal Ministry of the Environment gave a lecture.

**CLIMATE PROTECTION** As an energy-intensive company, we are constantly working on how to reduce our energy consumption and increase energy efficiency so as to protect the environment and the climate and cut costs. This occurs on the one hand in terms of environmental and climate protection aspects, but on the other to save energy and thus reduce costs.

#### **ENERGY CONSUMPTION AND CO, EMISSIONS**

At the Hamburg site, we have an annual electricity consumption of some 610 million kWh, of which in-house environmental protection accounts for about 150 million kWh. The dramatic rise in energy costs in Germany is a considerable competitive disadvantage internationally. Specific energy consumption has been reduced by 63 % and in parallel specific CO<sub>2</sub> emissions by as much as almost 80 % compared with 1990. In 2004 we set up the Energy Management Department to achieve a continual increase in energy efficiency. This department works on projects within the context of

#### Specific energy consumption at NA AG, Hamburg

in MWh/t of copper output p.a



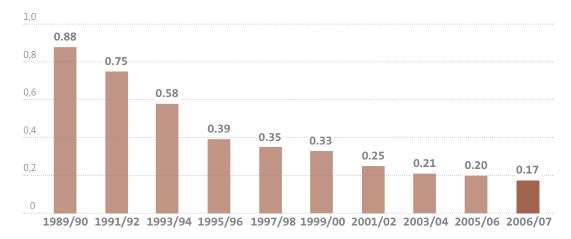
our energy saving programme eNergiA and assists in their implementation.

Between 2000 and 2004 eNergiA covered 400 individual projects and had a capital expenditure volume of some € 16 million. As a result, NA has long-term savings per annum of almost 214 million kWh of steam and natural gas, more than 37 million kWh of electricity and more than 53 million kWh of coke and oil. A major step was the creation of a combined energy set-up covering the entire production

site in Hamburg. The amount of energy saved corresponds to the annual electricity consumption of about 84,000 average four-person households, which has resulted in a long-term reduction in emissions at the Hamburg site of more than 80,000 t CO<sub>2</sub> p.a. In 2007 NA took part in a study on the financial repercussions of climate change, which analyses the costs and potential of avoiding greenhouse gas emissions in Germany from the economic viewpoint. NA has already successfully

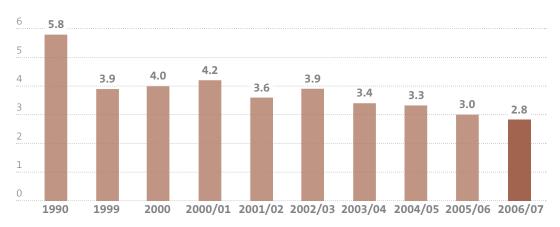
#### Specific CO<sub>2</sub> emissions at NA, Hamburg

in t CO<sub>2</sub>/t of copper production p.a.



#### Specific energy consumption at NA, Lünen

in MWh/t of copper production p.a.



#### Further information on the financial repercussions of climate change at

www.bdi-online.de/ Dokumente/Umwelt politik/Klimastudie\_ BDlundMcKinsey\_ KostenundPotenzialeder Vermeidungvon Treibhausgasemiss.pdf



implemented the improvement possibilities for the non-ferrous metal industry, above all in the efficient heat treatment sector, in projects which are part of the eNergieA energy programme.

**LOGISTICS** Copper concentrates sources from all over the world are NA's most important raw material. The safe, environmentally friendly and cost-effective handling and transport of these raw materials therefore represent the lifeblood of our company. Since 2007, the delivered copper concentrates have been discharged in a new handling and storage system for NA's copper concentrates in Brunsbüttel. The finished concentrate blend is then transported to Hamburg on state-of-the-art barges that boast a fuel-saving design and engine.

Transport on the waterways and, in particular, also by rail is the first choice for our copper and specialty products. Sulphuric acid is also produced during the copper production process. All the quantities of sulphuric acid leaving NA by sea are transported on inland navigation vessels from the Hamburg works via the tank storage in the petroleum harbour in the Elbe direct to the seagoing vessel or to the end customer.

"DISTINCTION – NA RECEIVES RESPONSIBLE CARE AWARD FOR TRANSPORT SAFETY NA was awarded the Responsible Care Prize 2007 of the North German Association of the Federation of the Chemical Industry (Verband des Chemischen Industrie e.V.) for exemplary safety in transport. NA's contribution to this year's competition was under the motto "Learn from accidents" and referred to the incident with the acid tanker ENA2, which capsized after colliding with a container ship in the Hamburg harbour in June 2004. NA has had two inland navigation vessels developed to optimise transport safety that are specially designed for the transport of sulphuric acid.

In addition, we use transport by truck, in particular to ensure that all our customers are reachable. We also switch to the road if

transport by sea or rail would put us at a significant economic disadvantage.

Nowadays, more than half the quantities delivered are transported by rail, a quarter by inland navigation vessels and only a further quarter by truck. Every endeavour is being made to in-crease the quantity transported by rail and sea. NA provides considerable funds to maintain the required infrastructure — whether water and canal or rail — in an optimal condition. For example, we perform maintenance on sheet piling, dredging and maintenance on rail tracks.

### » NA AG AND VATTENFALL – AN INDUSTRIAL PACT ENSURES THE ELECTRICITY SUPPLY As an

energy-intensive company, we are dependent on having a long-term supply of electricity. NA has therefore agreed a constructive industrial solution with Vattenfall, the electricity supplier, and acquired a virtual slice of a power plant. In May 2007, NA signed the corresponding agreement covering the annual procurement of one billion KWh as of 2010. The agreement has assured the complete electricity supply for the entire NA Group in Germany for decades. We are also making a contribution to environmental protection as a result of this cooperation, because the environmentally state-of-the-art coal-fired power plant will replace outdated power plant capacities.

VOLUNTARY COMMITMENTS We are aware of our responsibility towards future generations. For example, at the Hamburg site we participate in voluntary commitments to improve environmental and climate protection. Since 1985, we have had agreements with the Hamburg authorities for Urban Development and the Environment as part of the EnvironmentalPartnership Hamburg, in which we do our utmost to improve environmental protection and increase energy efficiency at our sites on a voluntary basis. The currently applicable agreement is valid until the end of 2008 and covers environmental protection measures with a volume of more than € 20 million.

## Further information on the transport of hazardous materials in the

mental Statement of NA AG 2008, pages 21 and 32



In addition, NA was the first company to participate in the climate protection concept of the Hamburg Senate in August 2007. As part of an agreement, NA voluntarily undertook to reduce CO<sub>2</sub> emissions long-term by a further 40,000 tonnes p.a. by 2012. To achieve this, about 200 voluntary individual measures are currently being implemented with a capital expenditure volume of some € 22 million. The success of the Hamburg climate protection programme is verified in regular meetings between the authorities and the companies. We are very proud that by October 2008 we had already fulfilled 50 % of this potential reduction (saving of 22,000 tonnes of CO<sub>2</sub> p.a.).

#### » CLIMATE PROTECTION IN FOCUS AT NA AG

NA pursues exemplary climate protection. The action taken was reviewed twice at events in the first half of 2008.

In February 2008 we were hosts to a workshop on the topic "Corporate energy efficiency and climate protection", during which Hamburg companies discussed the challenges of climate protection and corporate solutions inter alia with Dr Herlind Grundelach, Government Councillor from the Authority for Urban Development and the Environment. NA AG gave a presentation as well on the successful climate protection measures taken on site.

Seven Chilean energy politicians visited NA in Hamburg in June 2008 together with Anja Hajduk, Hamburg's Senator for Environmental Affairs, in order to make a picture of the company's far-reaching activities in environmental protection, energy efficiency and climate protection. Chile is NA's main source of copper concentrates. It was therefore a particular honour to show the guests how our company is oriented to sustainable development and conserving resources. The delegation was shown, for example, how off-gases and waste heat are used to generate energy and significant savings can be achieved by modifications to the production plants.

#### **Further information** on voluntary emission reduction concept in Lünen in the

mental Statement of page 26

"Hamburg's approach is to play a major role in the realisation of an effective climate protection strategy. We are striving to achieve a 40 % reduction in CO<sub>2</sub> emissions by 2020 as a result of the broadly applied strategy in the government programme. NA is making a significant contribution by voluntarily reducing its CO₂ emissions by 40,000 tonnes within the context of the Hamburg Climate Protection Concept. The considerable investment in extensive measures to achieve climate protection is impressive. The measures are certainly proving to be economical since they aim at achieving substantial financial savings in the company. Committed and timely climate protection is a good investment for an energy-intensive company. We would welcome it if NA would extend the cooperation to its suppliers in order to achieve improvements in climate protection together with them." Peter Lindlahr, Climate Protection Coordinator of the Hamburg Senate



Dirk Jepsen, Managing Director of Ökopol GmbH and Coordinator REACH Hamburg network

Further information on the Hamburg REACH network at

www.reach.hamburg.de





Wolfgang Stüwer, Agency for Industry and Labour Hamburg

IN DISCUSSION: IMPACT OF "REACH" AT THE HAMBURG SITE The REACH law came into force on 1 June 2007 in the European Union. REACH stands for "Registration, Evaluation, Authorisation and Restriction of Chemicals". The aim of the law is to record all material flows in the EU. On the principle of "no data, no market", only those materials may be produced or imported as of 1 December 2008 that have been registered at the European Chemical Authorities in Helsinki (ECHA). REACH must therefore be applied not only at the chemical producers but also at the companies, in which the substances are used. The considerable administration work caused in some cases by REACH presents smallish companies with immense challenges. On 27 June 2008 the workshop on the "Impacts of REACH on Recycling" was held at NA AG in the Alte Schlosserei. NA had organised this as part of its work in the Hamburg REACH network. The network was set up by the Agency for Industry and Labour of the Free and Hanseatic City of Hamburg in 2007 in order to support small and medium-sized companies in the timely implementation of REACH. The aim of the workshop, which was well received by more than 60 guests, was to inform recycling companies from the region about how they are affected by REACH and the appropriate way forward. After the workshop, the coordinator Dirk Jepsen from the Hamburg REACH network spoke with Jochen Windhager and Dr Hendrik Roth from the Environmental Protection Department at NA and Wolfgang Stüwer from the Agency for Industry and Labour about the meaning of REACH for Hamburg as a business location.

Dirk Jepsen, Managing Director of Ökopol GmbH and coordinator of the Hamburg REACH network: Mr Stüwer, please explain to us again what opportunities and risks will result from the implementation of the new REACH law for companies. Wolfgang Stüwer, Agency for Industry and Labour Hamburg: REACH demands a lot of the companies in view of the elaborate and cost-

intensive registration and licensing process. Particularly those companies that compete for the markets with market participants from third countries will be subjected to greater competitive pressure. Although there is the chance of achieving long-term competitive advantages if demand prevails for safer materials, preparations and products with known effects. However, in the short and medium term there is the danger of a significant loss of workplaces due to production shutdowns due to product substitution or production facilities being relocated to third countries

This cut-throat competition could, in particular, be supported by the comparably low registration requirements for imported products. Small and medium-sized companies, which do not have sufficient expertise and financial power, would, above all, be threatened by hardship. REACH can therefore have far-reaching consequences in many sectors — not only in the chemical industry.

# Dirk Jepsen: What contribution do you think the Hamburg REACH network can make in this connection to the City of Hamburg and to the whole economic area?

**Wolfgang Stüwer:** The REACH Hamburg project is attributed great importance from the economic policy viewpoint. There is great uncertainty about the interpretation in detail and the practical implementation of REACH, particularly in the early phase. The aim was therefore to accompany the REACH implementation together with the chambers, guilds, federations companies and authorities as regards coordination and focus, to create an awareness of problems, show where action must be taken and discuss possible solutions. The basis for the correct implementation of the EU chemicals legislation is created by practiceoriented information and across-the-board communication in the Hamburg REACH network. Particularly small and medium-sized companies benefit from the frank exchange in the network. In Hamburg, as an industrial centre, this has above all the effect of maintaining the competitiveness of the affected companies and thus

safeguarding jobs. I am particularly pleased that the network has found a strong and professionally competent partner in NA.

### Dirk Jepsen: Mr Windhager, why is NA AG so involved in the Hamburg REACH network?

**Jochen Windhager,** Environmental Protection Department: As in many sectors of environmental protection, NA has taken over a pioneer role in REACH issues in the EU copper industry. As one of the largest companies, NA AG is aware of its regional responsibility in its Hamburg location. By actively participating in the Hamburg REACH network, we are involved in briefing small and medium-sized companies in Hamburg on the REACH legislation and their obligations as regards implementation. This is absolutely in our own interests because the regular discussions with customers and suppliers have shown that many small and medium-sized companies do not have any or only insufficient knowledge of the REACH legislation. The intensive dialogue in the Hamburg REACH network is therefore a good thing. In addition, the network forms a platform for proactive dialogue between industry, politics and the authorities. Consequently, timely joint possible solutions could be worked out in the implementation of REACH.

# Dirk Jepsen: What specific approach is NA AG pursuing in the implementation of REACH in the company?

**Dr Hendrik Roth,** Environmental Protection Department: The main focus is on the professional and timely implementation of the legislation. We have therefore proactively hired new personnel. NA had already prepared the pre-registration of about 90 different materials and intermediates as required under the directive in 2007 and in addition compiled a material inventory covering all the relevant materials and intermediates for all the sites in the NA Group. Thus, the obligations of the NA Group as regards pre-registration are almost completely fulfilled. The required registration dossiers will be compiled together with competitors in syndicates. Information is

jointly compiled in cooperation with other companies and thus the costs shared. The implementation of the REACH directive gives us generally the opportunity to demonstrate to our neighbours at the production sites as well as our customers throughout the world that the production and the correct application of the NA product portfolio is performed is such a way that all measures were and are being taken to protect the environment and health.

# Dirk Jepsen: Mr Stüwer, how do you assess the contribution of Norddeutsche Affinerie in the implementation of REACH in the business area of Hamburg?

Wolfgang Stüwer: NA is one of the large Hamburg companies that can boast a variety of regional, national and international supply relationships. In this complex, NA is interested in the correct implementation of REACH requirements and since it started its registration preparations early on, it is able to play a leading role in

The resultant experiences – e.g. in the syndicate formation or in the registration of waste or recycled materials – are discussed with representatives of other companies as part of professional workshops. Inasmuch Hamburg as an industrial area is a very important disseminator in the implementation of REACH.

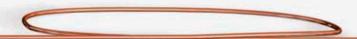
Dirk Jepsen: Mr Stüwer, Mr Windhager, Mr Roth – thank you for talking to me today.



Jochen Windhager, NA's Environmental **Protection Department** 



Dr Hendrik Roth, NA's Environmental **Protection Department** 





Dr Karin Hinrichs-Petersen, Head of NA's Environmental Protection Department

#### **INTERVIEW - ENVIRONMENTAL PROTECTION**

**AT NA** NA is Europe's largest copper producer and must fulfil very high requirements in the environmental protection sector in the middle of the metropolis of Hamburg just as in Lünen. The Head of Environmental Protection, Dr Karin Hinrichs-Petersen explains in an interview how NA meets the demands.

# What action was taken to achieve the results in environmental protection to date and what is planned for the future?

NA is a cooperative and dialogue-oriented company. We thus pursue a constructive cooperation between industry and the authorities. Let us take the EnvironmentPartnership Hamburg as an example: since 1985 NA has concluded agreements on a voluntary basis with the Hamburg Authorities for Urban Development and the Environment covering the improvement of environmental protection and the enhancement of energy efficiency, which in some respects go far beyond the legal requirements. Measures are also laid down in a cooperation for the Lünen site, which likewise result in the greatest successes in environmental protection and climate protection when taking economic aspects into account. We have implemented measures with a capital expenditure volume of about € 300 million in the last 25 years – particularly for the reduction of emissions as well as climate pro-tection and the conservation of resources. An example, we have reduced specific emissions by about 80 % since 1990 as a result of significant capital investment. Milestones in environmental protection were the use of state-of-the-art filter technologies for all directed emission sources, i.e. stacks. NA had already recognised the importance of fugitive emissions for the fine dust aspects in the seventies. To reduce fugitive emissions, i.e. hazardous substances that arise for instance during transport operations, we have newly developed partly innovative technologies for environmental protection, which were subsidised with research funds from the German Environmental Protection Agency due to

their uses for demonstration purposes and suitability for adapting to other facilities. An example of this is our capital investment in the amount of some € 6 million in 2004 in the secondary smelter — this enabled us to reduce emissions by more than 70 %. At present a project to enclose and suck off fugitive emissions in the anode furnace and casting machine sector has been completed in the primary smelter involving capital expenditure of more than € 7 million. In Lünen we are currently implementing a concept to reduce emissions which will entail capital expenditure of more than € 10 million.

# What significance does environmental protection and climate protection have in your company?

We are clearly committed to environmental protection and to climate protection. Both topics represent focal points of our corporate philosophy. As an energy-intensive company, a long-term energy supply at economically justifiable prices is essential for the development of the NA production sites. We economise with raw materials and energy so as to protect the climate and fulfil our obligation to future generations. In Hamburg and Lünen we have succeeded in significantly increasing energy efficiency and to reduce specific CO<sub>2</sub> emissions long-term by more than two thirds. Our energy saving programme eNergiA, which ran from 2000 to 2004, made a contribution in this respect and achieved a considerable reduction in energy consumption at NA. The quantities of oil, gas and coal that this saved will benefit our grandchildren. However, we do not wish to rest on our laurels. We were the first voluntary company to participate in the climate protection concept of the Hamburg Senate and set ourselves new ambitious targets. Thus, we are committed to saving a further 40,000 tonnes of carbon dioxide at the Hamburg site alone by investing € 22 million. Climate protection is of course a global task.

In order to be successful, we must therefore get the biggest originators of CO<sub>2</sub> emissions, such as the U.S.A. China and Russia, on board. The greatest CO<sub>2</sub> savings are also possible in these countries.

### What does "sustainability" mean for your group?

Sustainable development is one of the main targets of the NA Group. The obligation to ensure sustainability in all processes has been reinforced since the integration von Cumerio. This includes not only environmental protection but also health protection, social components and, in particular, the conservation of naturally limited resources. Thus, NA is inter alia the biggest copper recycler worldwide. Copper and various by-metals are recovered from scrap, i.e. from computers, mobile phones or water pipes and industrial residues using state-of-the-art, environmentally sound technologies. Recycling is therefore pure environmental protection and a decisive step towards sustainability. NA also participates in the global initiative of the chemical industry "Responsible Care", by which we undertake to continuously improve health and environmental protection as well as the safety of employees and fellow citizens on our own responsibility. The principles of this form part of the guidelines of our corporate policy.

# Is NA participating in the preparation of new European quidelines?

NA is represented in numerous committees and has influence on the setting up of European guidelines and legislative projects. Thus, NA is currently also working intensively on the review of the European BAT guidelines, which should ensure the operation of particularly environmentally relevant plants in compliance with the best available techniques. An intensive exchange of information took place at NA Hamburg and Lünen between representatives of the responsible European and national authorities, environmental associations, industrial federations and business undertakings at the beginning of September 2008. During the

meeting, it became apparent that the plants in the NA Group mostly comply with the best available technique.

### How are you ensuring that environmental protection is implemented in the NA Group?

NA has an environmental management system that is certified each year in accordance with EMAS and ISO 14001. The annual audit is a good opportunity for us to have the successful implementation of environmental protection as well as the resultant achievements at the production sites confirmed by external third parties. We are currently creating a uniform system in the expanded group to determine key indicators in environmental protection, which should be certified next year. The key indicators should be included already in the next Sustainability Report 2009, in which we shall give an integrated report as well about Cumerio as part of our group.

It is firstly important to understand the different cultures and legal requirements. Having already completed the examination of the actual situation, we are now harmonising the environmental standards for the new NA/ Cumerio group.



NA is currently also working intensively on the review of the European BAT guidelines (BAT = Best Available Technique).

**PROCUREMENT POLICY** NA's business is to produce refined copper from copper concentrates and a wide range of recycled materials. We therefore buy raw materials as well as a variety of other materials, services and equipment from currently 2,500 suppliers for this purpose, which are needed as part of the production process. Buyers and the procurement management are responsible for adhering to pertinent business modalities in the raw material procurement sector. For us, the raw material suppliers are customers who use our processing services. Basic elements of our procurement policy are aboveaverage technical availability and competence in the efficient and environmentally sound processing of raw materials. We have prepared a process directive for the procurement of materials and services, which ensures environmentoriented procurement while taking into account the promotion of occupational safety and health protection.

RAW MATERIAL SUPPLY NA sources its raw materials for copper production worldwide. It procures the primary raw material, copper concentrates, mainly on the basis of long-term supply agreements direct from the copper mines in the different counties of origin — mainly South America. We only work with mining companies for our copper concentrate supplies whose operations are approved in accordance with the requirements of the respective country and have a corresponding export permit.

NA buys secondary raw materials, which are used in particular at the Lünen site for copper production — including a wide range of copper scrap and copper alloy scrap as well as other recycled materials — largely on the basis of short-term agreements. Recycled materials include inter alia copper-bearing residues, such as sweeps, slag and dust, but also printed circuit boards and other industrial, metal-bearing residues, e.g. slimes and spent catalysts. Strong relationships with our suppliers through to exclusive and strategic

partnerships, in particular in the supply of primary raw materials, are an important factor for NA's business success. NA therefore focuses on strengthening and building up good connections to its supplier. A well-functioning and extensive network of suppliers for the delivery of secondary raw materials is likewise an important part of our raw material supply.

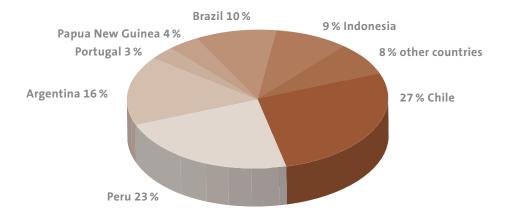
At the same time, as an integrated copper producer, we have always ensured that we avoid dependency in the supplier structure. As a result, some 55 % of NA's copper production is based on imported copper concentrates and some 45 % on the processing of recycled materials. This raw material mix, which is unique in comparison with other copper smelters, makes us robust as regards changing market situations.

#### » HOW THE COPPER CONCENTRATES REACH US

The copper ore raw material is extracted in open cast and deep mining and is enriched near the mines into copper concentrates. In fiscal year 2006/07 the main countries of origin were South America (76 %), Indonesia (9 %), Papua New Guinea (4%) and to a limited extent Portugal and other countries. The main suppliers of the primary raw material, copper concentrates, include the globally active mining companies Xstrata, BHP, Rio Tinto and Vale, all of which have committed themselves to a sustainable corporate policy and to the publication of environmental reports that can be accessed at the companies' websites. The concentrates are transported by sea as bulk cargo via Brunsbüttel. Special inland navigation vessels are used to deliver the concentrate blends, which are discharged in the Müggenburger Canal by diggers. In this way, more than one million tonnes of copper concentrates were delivered to our works in fiscal year 2006/07.

#### Origin of copper concentrates

in fiscal year 2006/07



**PROCUREMENT GUIDELINES** We work in accordance with a process directive for the procurement of all types of machines, services, supplies and auxiliaries. This directive stipulates procedures and responsibilities to avoid adverse impacts on the environment and to promote occupational safety and health protection. It is valid for NA AG.

Several departments are involved in the processes: Material Procurement, Environmental Protection as well as the business and service sectors that register the need. At the same time, the Executive Board defines the basic guidelines as regards the consideration of environmental protection, occupational safety and health protection aspects.

As regards environment-relevant procurement topics, we perform a basic approval process with a view to environmental compatibility. We select the respective suppliers by taking into account the replies to a questionnaire on environmental protection and occupational safety. These questionnaires, which are prepared and regularly updated by the Environmental Protection Department, are sent to all new suppliers.

Suppliers that do not provide the information on themselves required in the questionnaire are not considered as potential suppliers for NA from the outset. The Procurement Department checks the respective documentation from all NA's existing suppliers for completeness in an annual rhythm.

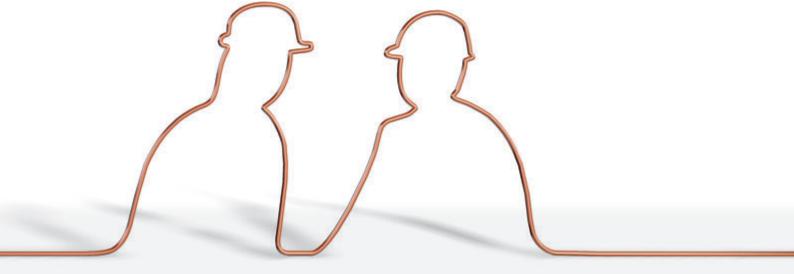
As to the procurement of equipment, such as machines, plants and devices, further detailed environmental protection and safety requirements on the product and the supplier are additionally defined and taken into account. These include, for instance, the consumption of energy and water, emissions discharged, expected life cycle or the availability of important test reports.



Escondida copper mine, Chile

# **ATTRACTIVE EMPLOYER**

CAREER PROSPECTS FOR PERSONNEL INNOVATIVE REMUNERATION SYSTEM PERSONNEL DEVELOPMENT WORKFORCE DIVERSITY FLEXIBLE WORKING HOURS VOLUNTARY SOCIAL BENEFITS CO-DETERMINATION HEALTH PROTECTION



# ATTRACTIVE EMPLOYER

career prospects for employees State-of-the-art plants, top product quality, an outstanding performance in environmental protection, excellent health care: all this would not be possible without the motivation of dedicated employees. About 2,500 employees with the most different qualifications work at NA in Hamburg and Lünen – technicians, skilled op-erators, mechanics, laboratory assistants, metallurgists, chemists, engineers, traders and many more. Since we are aiming at increased internationalisation in the orientation of our business, we expect the number of employees to increase in the next few years.

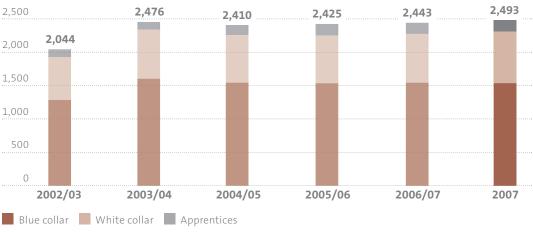
**EMPLOYEE SATISFACTION** Our dedicated and motivated employees are the deciding factor for our company's success. We are therefore doing a great deal in order to be an attractive employer for our employees. The satisfaction is reflected not only in the length of average job tenure –16 years – but also in the correspondingly low fluctuation rate. In 2007 this

was 4.29 %, whereby the largest part is attributable to employees going into retirement. This is also an indication that our employees know and use their chances and prospects in the group. We are pleased that as a result, excellent know-how is retained – for a sustainable successful future.

**CHALLENGES AND GOALS** The main challenges are presented by the internationalisation of the NA Group by the Cumerio takeover. Various activities, seminars and events are therefore planned for 2008 to integrate our new employees. We are also working continuously on reinforcing and enhancing the measures taken to ensure equal opportunity.

#### Number and structure of employees at NA AG

Fiscal year average and as at 30.9.2007



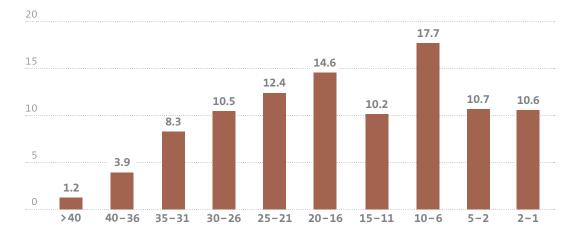
In addition, we must counter the demographic development in Germany, which will result in a shortage of qualified personnel in the next few years, by taking targeted action. We are already now intensively pursuing junior staff development. To encourage this, we are maintaining cooperations with universities and schools which we wish to enhance in future. We are also pressing on with the steady, systematic personal development of our staff. This includes inter alia the promotion of health protection in order to safeguard the physical integrity of our employees.

HIGHLIGHTS OF OUR COMMITMENT IN FISCAL **2006/07** In fiscal year 2006/07 we continued to work on increasing our attractiveness as an employer and the implementation of a policy of sustainability in the personnel sector in fiscal year 2006/07:

- Promotion of young talent: we remain very successful in the training of young people. In 2007 we increased the number of apprenticeships and enhanced the promotion of young talents.
- Training: our personnel development programme "Sustainable Management" for management enabled us to increase the effectiveness and efficiency in management further.
- Equal opportunity: NA was host to a wellattended event of trade unionists from the industrial union Mining, Chemistry, Energy (IG BCE) on the subject of equal opportunity.
- Health protection: NA's health management was commended as one of the ten best in Germany. In addition, accident frequency could be reduced further as a result of new campaigns and preventive measures. It is currently at an historic low.

# Job tenure of employees at NA AG

in % and years, status 30.9.2007



Further information on the remuneration system at

www.na-ag.com/konzern/karriere



Further information on the compensation of the Executive Board and Supervisory Board in the Annual Report 2006/07, page 18 f.



**INNOVATIVE REMUNERATION SYSTEM** In 2001 we started an innovative, performance-oriented remuneration system. The aim is to increase enterprise value by motivating the employees to extraordinary achievement. They are encouraged by targeted financial incentives and share in the company's success.

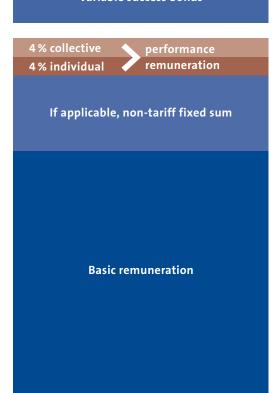
First of all, each employee receives basic payment depending on the job description, which incidentally also ensures that men and women are on the same wage scale at NA. There is the principle of same wage for the same work. On this basis, each employee receives individual and collective performance remuneration. The collective remuneration is dependent on the employee's performance in connection with the performance of the team, his/her department or his/her production sector. The employee's individual performance and the collective team performance complement each other and together with the variable corporate performance bonus form the components of the remuneration system. The individual performance is assessed and rewarded in an annual job performance review for tariff employees and on the basis of target agreements for non-tariff employees. The collective performance is determined each month on the basis of measurable targets and the employees informed accordingly. The individual and collective performance result in the company's success that leads to profit-sharing bonus depending on NA's results.

The remuneration system encourages communication between employees and superiors. In addition, the employees' awareness of key figures, such as productivity and efficiency, has grown since these figures have an immediate impact on the wages and salaries. Apart from the performance-oriented remuneration, we also offer our employees the possibilities of acquiring NA shares at a discount.

On top of this, we have an incentive programme for our non-tariff employees and management, which is a capital market-oriented compensation component for the Executive Board, senior and non tariff staff in the form of a virtual stock option plan. The term of the programme's first tranche ended in spring 2007. With this compensation component, the employees share in the company's success if NA shares perform well and previously defined benchmarks are fulfilled. The prerequisite for participation is that the management own a certain number of NA shares depending on their seniority.

#### Structure of remuneration system

Variable success bonus

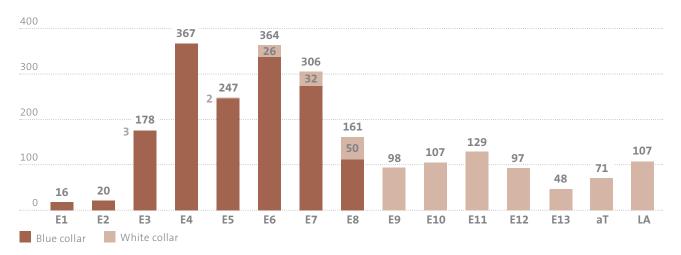


Further informtion on the incentive plan in the NA Group Annual Report 2006/07, page 76



# Breakdown of employees by salary/wage brackets at NA AG

Status 30.9.2007



# SYSTEMATIC PERFORMANCE REVIEW AND DE-**VELOPMENT PLAN** A performance review for the previous fiscal year is carried for each employee once a year (from October to November).

As part of the frank discussion between employees and direct superiors, it is ensured that the employee knows the assessment characteristics and what is expected of him in his position.

The performance review is based on five characteristics:

- Work quality
- Work quantity
- Profitability
- Team work/employee supervision
- Ability to work on own initiative/flexibility

The profitability characteristic is, for instance, to be understood as the cost-conscious, reponsible and efficient use and handling of energy, materials, tools, entrusted devices and working time.

In addition, the employee together with his/ her supervisor works out joint targets for the future. At the same time, examples are given of how the employee can improve his/her performance. The supervisor and employee are equally responsible for taking the agreed action, e.g. for improving working appliances and processes or the participation in vocational training.

#### **Further information on** personnel development at www.na-ag.com/ konzern/karriere





NA as an attractive employer

PERSONNEL DEVELOPMENT Well-trained, motivated and customer-oriented employees are the most important asset of our company. In personnel development, NA is facing the challenges of the future with different programmes. The demographic development and the currently improved economic basic conditions have the result that it is becoming more difficult to secure good and committed employees. For this reason, we are taking unconventional routes to increase our attractiveness as an employer.

**APPRENTICESHIPS** We have always had a high percentage of apprenticeships in our workforce in order to secure young employees for our company, and have one of the most extensive training programmes in Hamburg. We increased the number of apprenticeships again in fiscal year 2006/07. On 1 September 2007 a total of 67 young people started their training in 14 trades and professions at NA AG in Hamburg and Lünen. Thus, the percentage of apprentices amounted to 7.8 % at the end of the fiscal year.

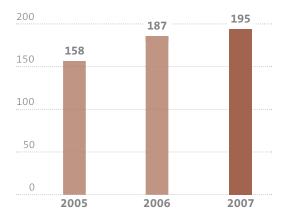
The in-house training at NA is of an approved high standard that lays the foundation for good employment qualifications. Possible apprenticeships are available in commercial and technical sectors and include process mechanic in non-ferrous metallurgy, electronics engineer, systems mechanic, chemical assistant and industrial business management assistant as well as the qualification of Bachelor of Arts. The final year 2007 achieved excellent results compared with German and Hamburg average standards, which is primarily due to the very practice-oriented slant given to the training.

#### **DUAL SYSTEMS STUDIES: BACHELOR OF ARTS**

The degree Bachelor of Arts refers to business executives who have qualified in practice and theory.

#### Number of apprentices at NA AG

as at 30.9 respectively



The degree funded by NA is completed in blocks alternating between periods at NA completing an industrial management assistant apprenticeship and at the Hamburg School of Business Administration (HSBA) and can be completed in the following subjects: business economics, business management, social psychology, economics, law, politics and foreign languages. Doubly qualified, the graduates from the three-year course are equipped for management assignments and can assist in the corporate decision-making process. We had one place to allocate for this programm in 2007.

PROMOTION OF YOUNG TALENT The promotion of young talent is attributed great significance at NA. During their studies, young people can have a look at their professional prospects early on and as a result of their work experience have a decisive advantage for the subsequent start to their working life. Theory and practice are combined in a training period at NA or writing a thesis on the technical side of our research and development work. We also offer our employees' children interesting possibilities for gaining an insight into the working world of their parents. Thus, the "Girls'

Further information on the promotion of young talent on page 59 f.

Day" is very popular, when daughters can look over the shoulders of their fathers and mothers at work.

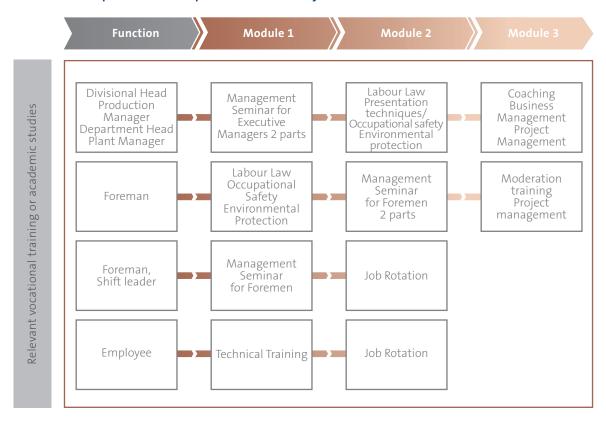
#### PERSONNEL DEVELOPMENT AND FURTHER

**TRAINING** Lifelong learning is necessary in order to match the constantly changing demands. In addition, we have to prepare ourselves for a longer working life. Our employees have the possibility of receiving vocational training and of changing to another workplace within the framework of their career management. Under a new further training programme NA production employees, who are unskilled or completed their training in a different trade, can achieve the qualification of a production

operator in the chemical industry. After successfully completing the course, these employees possess extensive skills and a recognised qualification that enables them to be employed in every production sector at NA. They can even continue their training to become foremen.

All employees have the possibility of attending seminars and receiving instruction in the subjects of labour law, presentation techniques, occupational safety and environmental protection. In addition, seminars on coaching, business management and project management are available.

#### Cornerstones of personnel development in the hierarchy level

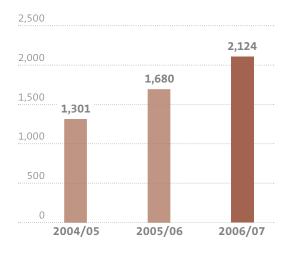


German industrial companies can only face the tough international competition with motivated and highly qualified senior staff and employees. Consequently, NA is investing long-term in group-wide vocational and further training for its employees. During the past fiscal year, 2,100 employees participated in commensurate measures, corresponding to a total of 26,051 hours of training.

"SUSTAINABLE MANAGEMENT" PROGRAMME

FOR SENIOR STAFF The personnel development programme "Sustainable Management" was started in 2006 supported by an external consultancy to optimise the effectiveness and efficiency of management actions. After a management audit, the participants complete a consolidated and practice-related training. This has enabled us to pursue the creation of uniform management understanding. Senior staff had the opportunity to reflect on and check their progress in the implementation workshops that were part of the programme. At the same time, we offer open seminars to support individual development targets.

# Number of participants in vocational training activities at NA AG, Hamburg



of a European group that operates at numerous European locations. In future, we want to develop NA even further into an international group. The topic of the diversity of our employees always been an up-to-date topic for NA AG and is attributed great importance at our company. The General Equal Treatment Act and various programmes ensure the equal opportunities for all the employees in NA's business world.

#### **EQUAL TREATMENT AND ANTIDISCRIMINATION**

The General Equal Treatment Act (AGG) came into force on 18 August 2006. The purpose of the AGG is to prevent and remove discrimination and harassment on the basis of race and origin, gender, religious beliefs and philosophy of life, disablement, age and sexual orientation.

It is a matter of course that all employees are treated equally. NA is therefore expressly committed to these legal targets. The integration of people from foreign cultures or with foreign religious philosophies of life has always been a central target of NA. The Code of Conduct that has applied to all NA employees and the whole group since 2004 stipulates that discrimination is absolutely prohibited, which by the way also applies to third parties, e.g. suppliers and customers.

Further information on the social commitment of our senior staff on page 64



The AGG's goal is to create a discriminationfree working environment. In order to achieve this goal, NA has alerted all the group's employees to the validity of the AGG and informed them about the key points of the law in a detailed letter.

In addition, members of senior staff are instructed in detail about the concrete demands and contents of the law.

Violation of the prohibition of discrimination can have consequences under labour law, such as a caution, warning, transfer and relocation up to dismissal. The complaints office in the Personnel Department follows up every suspicion registered. It is positive that the Complaints Office has been in existence since the AGG came into force, i.e. since August 2006, and has not had to deal with one single complaint yet.

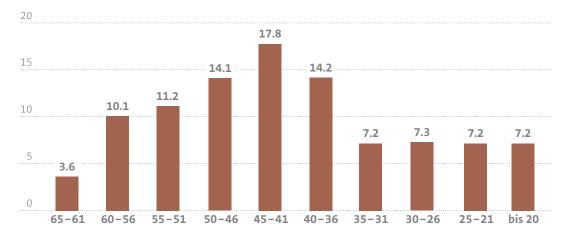
All the texts of the laws can incidentally be inspected by our employees at any time either in the Complaints Office or at the Works Council or in the NA intranet.

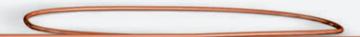
**PROMOTION OF DIVERSITY** In order to achieve equal opportunity in our company, we are especially involved in the following sectors:

• Older employees: we wish to engage employees for as long as possible for our company. A systematic personnel development programme and preventive health care ensure that they retain their mental and physical power for the company.

# Age structure of the workforce at NA AG

in % and age, status 30. 9. 2007



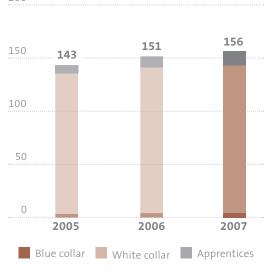


• Women: Apart from the obligation under the Code of Conduct, we committed ourselves to the social partner agreement of the "Promotion of Women in the Chemical Industry" in 1989, which was concluded between the Union of Mining, Chemicals and Energy and the Federal Employers Association, as well as to equal opportunity for qualified female employees and senior staff in the chemical industry. We react very individually to the demands in accordance with the particular cases. For example, flexible working hour schedules, such as job sharing and part-time employment, are used both during and after maternity leave. There is also the possibility of telecommuting. The number of women employed at NA has for years been at a not untypical low level for an industrial concern. The low percentage of women is above all due to the more physically taxing work for blue collar workers at NA compared with many companies in other industries. The number of women in white collar positions is significantly higher. There are 14 women

in managerial positions, of which 7 are in executive positions. A target for the future is to increase the number of female executives.

#### Number of women at NA AG, Hamburg

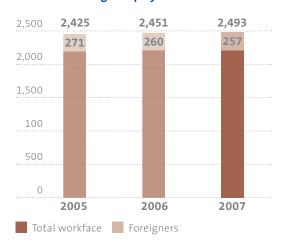
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NA employees at the anode casting wheel in Hamburg

# Number of foreign employees at NA AG

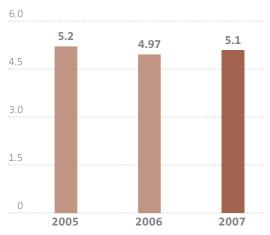


• Foreign employees: We do our utmost to encourage the integration of our foreign employees not only in the company. In Hamburg, NA is part, for example, of the integration council of the Authorities for Social and Family Matters.

• Severely handicapped employees: Industrial activities frequently entail heavy physical work, but NA is nevertheless in a position to employ a relatively high number of severely handicapped persons in its operations.

### Percentage of severely handicapped persons employed at NA AG

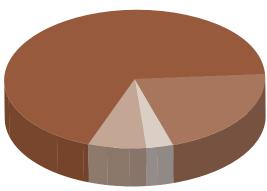
in %, average in calendar year



# Origin of foreign employees at NA AG

in %, status 30.9.2007

68.5 % Turkey



Spain, Portugal, 7 % 3.5 % Serbia Greece, Italy

21% other countries

# » WORKSHOP ON THE SUBJECT OF EQUAL OP-PORTUNITY ORGANISED BY THE UNION OF MINING, CHEMISTRY AND ENERGY AT NA

How equal are the opportunities in the united Europe? Do migrants have better opportunities in the labour market in Spain than in Germany? What concept does Sweden use to support older employees? And how comparable are the education systems? About 400 union members discussed topics such as these on 1 November 2007 at NA in Hamburg. The North German union branch was the organiser.

The different groups of the federal state district had examined the most varied aspects of equal opportunity in Europe in research work lasting for months. Aspects such as people with handicaps, migration, age-related work, co-determination, but also the reconcilability of work life and family were discussed and compared.

The event looked for reasons and solutions: older persons are subjected to growing discrimination in Germany, youngsters with a migration background have much worse educational opportunities than German children, and women are not to be found on the management level in companies despite very good qualifications.

In accordance with the employers' federation of the North German chemical industry, the General Equal Treatment Act has resulted in first improvements, despite the employers' initial misgivings. Employers have now been made aware of the aspects of equal opportunity.

Wolfgang Wietbrok, General Manager of HR Hamburg, is expressly committed to equal opportunity at NA: "As an employer in the chemical industry, we and our social partners are constantly being confronted with the topic, whether as a result of the social partner agreement work life and family between the industrial

union and the employers, or as a result of the Works Council which ensures that it is repeatedly included in the Agenda."

**FLEXIBLE WORKING HOURS** Complex production on 365 days around the clock requires flexible employees and flexible working hour schedules. In order to meet the production demands as well as to ensure the employees' work-life balance is in equilibrium, we have currently set up 138 working hour schedules that are adapted to requirements. A balanced relationship between work and private life reduces stress for employees, permits phases of rest and is certainly a decisive factor for employee satisfaction.

#### **RECONCILABILITY OF CAREER AND FAMILY**

To help reconcile family and career, our employees at the Lünen site have the possibility of taking a longer lunch break of up to 2.5 hours to given them time to devote to their families. In suitable cases, we also give our employees the opportunity of doing part-time work and telecommuting.

However, only some of our employees can take advantage of this offer since, for instance, our blue collar workers have shift work. We have therefore introduced more flexible shift systems, which should provide help for the families. The employees concerned are no longer totally removed from their family daily routines for days on end – as, for instance, in the late shift week.

In order not to lose contact to employees during their parental leave, we involve them, if desired, as holiday and sickness cover or give them the opportunity to get involved in, for instance, tours of the works.

**LEAVE OF ABSENCE** Our employees can take up to two days off on full pay in the event of a family member falling seriously ill, unpaid leave of absence is possible if the illness lasts longer. Unpaid leave of absence to look after relatives in need of care is arranged individually.

**VOLUNTARY EMPLOYEES' BENEFITS** We expect a lot of our employees. We would therefore like to reward this by voluntary employee benefits and grant numerous financial advantages for personal and family security in order to give our employees additional motivation.

We have already being paying into a company pension plan for a long time now since private pensions are becoming increasingly important nowadays in addition to the state pension. Thus, NA pays 1 % of the gross income into a pension fund. NA pays a further percent if the employee participates likewise with 1 % of his/ her basic remuneration. The deferred compensation for the pension fund is provided in accordance with the collective agreement. In addition, the employees receive payments to the pension fund of the chemical industry as part of the deferred compensation.

We offer our employees financial support in the event of, for instance, marriages, the birth of children and in particular hardship cases. We also grant loans with favourable interest rates for individual cases.

On top of this, we pay subsidies to the travel to work as well as towards food and drinks, bridging money in the event of retirement and organise community events such as company and Christmas parties. NA rewards a special work anniversary inter alia by paying a bonus.

We also subsidise company sport, which includes bowling, soccer, swimming, tennis, squash and cycling. At present, 167 employees are actively participating in the company sport. NA organises a large group soccer championship once a year.

**CO-DETERMINATION** The constructive and responsible collaboration between employees and the company management represents an importance success factor for our company. In addition, our employees can present their own ideas for improvements in all sectors via the company suggestion scheme.

**CORPORATE CO-DETERMINATION** NA is expressly committed to the co-determination of its employees. We include the Works Council in all important decisions. We generally pursue open and dialogue-oriented communication in our company. For this reason top priority is given to keeping our employees informed about development in good time and in detail. We keep our employees well informed within the framework of various events, through our

"The challenge of the future is the demographic change in our society. This means that corporate management and thus the corresponding personnel development must be long-term. We need suitable concepts for this challenge at Norddeutsche Affinerie. The structure of the corporate labour and organisation processes must be adapted not only to age but also aging. Human resources are increasingly gaining in importance and must be handled responsibly. Prejudices between young and old must be reduced to ensure good knowledge transfer. Older employees should be employed in accordance with their real strengths and weaknesses."

Hans-Jürgen Grundmann, Chairman of the Works Council of Norddeutschen Affinerie AG

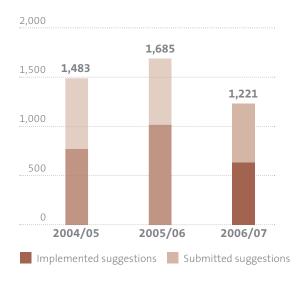


in-house magazine and up-to-date information. The collective agreement of the chemical industry applies for NA, in which the employees' rights and duties are laid down and protected – e.g. wage scales, working hours and holiday entitlements. The social partnership pursued by the tariff partners, the Federal Employers' Federation for the chemical industry (BAVC) and the Trade Union for Mining, Chemistry and Energy (IG BCE) is exemplary in Germany and is emphatically supported and implemented by us.

**IDEA MANAGEMENT** Our qualified employees are ideal sources of ideas for the improvement of productivity, cost-effectiveness, occupational safety and environmental protection. In our company suggestion scheme that has been in existence in Hamburg for almost 50 years, we have created a formal and recognised instrument for the ideas and inventive spirit of our employees at NA AG, which has meanwhile been extended to the group locations in Germany.

We use our employees' ideas to achieve continuous improvement in all sectors. In the last three years alone. 4.389 ideas were submitted. of which 1,992 were successfully implemented and a total of € 254,022 paid out in premiums to the resourceful employees. The ideas implemented in this period resulted in an improvement potential of € 1.79 million. The company suggestion scheme was successfully stepped up in a group-wide campaign, "Group Ideas 3,000" in 2005 and 2006, which requested each employee to submit a suggestion for improvement with the aim of generating at least 3,000 suggestions in one year. The 3,440 submitted suggestions, however, far exceeded expectations. The implemented suggestions for improvements result not only in savings, but above all also in qualitative improvements.

# Number of submitted suggestions for improvements at NA AG



**HEALTH PROTECTION** Our company lives through and with our employees. Consequently, their health is of utmost importance and health protection has a long tradition in our company. Health care and the avoidance of accidents have priority in every sector.

HEALTH MANAGMENT Our Occupational Safety and Health Protection Departments look after our employees' health requirements. The Occupational Safety and Health Protection Departments at NA were combined some years ago into NA Health Protection so as to bundle together activities for employee protection and effectively utilise the synergies. The duties of the works' physician and the safety officers are stipulated both in the Occupational Safety Code and in the directives of the Employers' Liability Insurance Associations. These combine the occupational medicine and safety sectors.

In compliance with legal requirements, NA's Health Protection is the direct responsibility of the Director of Labour Affairs and Board Member, Dr Michael Landau. € 4.2 million was spent on employees' health protection in fiscal year

2006/07. Together with the statutory contribution for the Employers' Liability Insurance Association, this corresponds to about € 3,000 per employee.

#### » EXCELLENT HEALTH MANAGEMENT AT NA

NA's company health management is one of the ten best in the whole of Germany. That is the result of a study of the market research institute EuPD Research from Bonn conducted on behalf of the Handelsblatt in October 2006, for which 500 of the biggest companies in Germany were examined.

**OCCUPATIONAL SAFETY** The trend in accident frequency at NA has been very positive in recent years. Possible accident hotspots have shifted from having technical reasons to behaviour-related reasons, which account for most of the accidents at work. An annual safety programme is set up by the safety steering committee, which includes the Executive Board, business unit managers, Occupational Safety Department and the Works Council. Accidents are discussed in monthly safety discussions between the Executive Board, business unit managers and the Occupational Safety Department and the progress with the implementation of the safety programme observed. Across-the-board occupational safety topics and also ongoing projects from the daily business are continually discussed by the Executive Board, Works Council and Occupational Safety Officers.

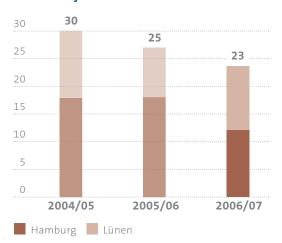
The Works Council, as the employees' representative, is closely connected with the occupational safety process.

Regular safety discussions on all levels as well as seminars and training ensure that employees recognise hazards at work and accidents are avoided as part of the prevention brief by protective action taken.

We also worked on improving occupational safety and reducing accident frequency throughout the group in fiscal year 2006/07.

Accident frequency in our Hamburg operations, which registers still four notifiable accidents per one million hours worked, is far below the average of the Employers' Liability Insurance Association of the chemical industry. We hold a leading position in this compared with the industry as a whole. We plan for 2008 to reduce accident frequency further and reach a number of maximum 3.5 accidents per one million hours worked.

#### Number of job-related accidents at NA AG







times as a plant with an excellent occupational safety system



Jan Lübbe, Head of Occupational Safety, would like to strengthen the NA employees' safety awareness with the "4 W's" campaign

" ACCIDENT PREVENTION: NEW CAMPAIGN WITH THE 4 W'S The campaign started up in summer 2007 "The 4W's for your occupational safety" should contribute to increasing the employees' safety awareness. Posters, stickers and calendars request that possible hazards are identified before starting work and the defined protective action taken.

The 4 W's stand for the following questions that each employee should always put:

- What can happen?
- Why can that happen?
- What can be done to prevent it?
- What should be done if something does happen?

**HEALTH CARE** Numerous measures for health care are taken at NA that are coordinated by our Health Protection Department.

The regular occupational medical check-ups are the main preventive measures in the medical sector. One of the first successes is that since 1988 there have been no occupational diseases among employees as a result of exposure in this time.

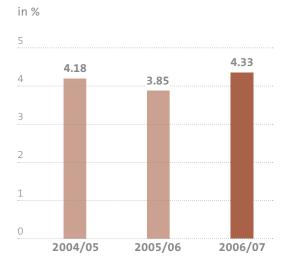
Furthermore, the following action is taken at NA to ensure health protection:

- Consultation hours: The daily surgery can be used by our employees for illnesses that are not work-related.
- Flue jabs: These have been performed at NA for decades in increasing numbers.
- Health and hygiene discussion circles: These circles are held regularly in the different production sectors to develop steps to promote health care
- Precautions: Together with the company health insurance fund, preventive back pain training, eye pressure readings and cancer screenings are, for example, performed and health days organised.
- Addiction prevention: A well-functioning and successful system for prevention and treatment has been built up in collaboration with the NA addiction recovery helper.

#### » HEALTH PANELS TO REDUCE ELEVATED BLOOD

**LEAD LEVELS** We hold intensive safety instruction for employees in the affected works sectors in order to adhere to the biological workplace tolerance value of blood lead (BAT value), which has been reduced by law from 700 μg/l to 400 μg/l. In addition, the sources of risks and possible reasons for elevated blood lead values are discussed and solutions worked out in small health circles. The most important participants in these circles are the employees themselves, who identify workplace exposure best and can make suggestions for improvement. Elevated blood lead values are primarily due to the employees' exposure to dust. The employees' blood lead levels have been reduced to less than the statutory maximum values as a result of a variety of technical, organisational and personal measures, in particular as regards work hygiene.

#### Absenteeism due to illness at NA AG

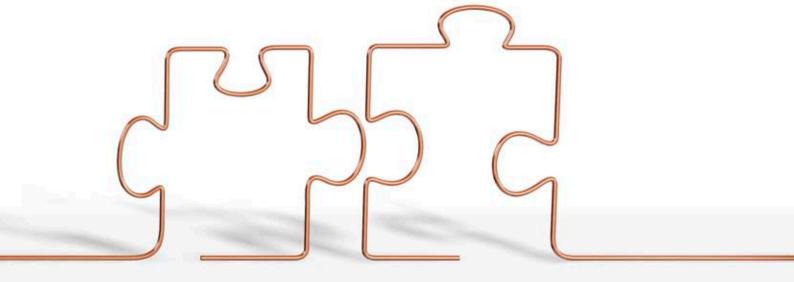




NA employee in the primary smelter in Hamburg

# **SOCIAL COMMITMENT**

STRATEGY AND ORGANISATION
PROMOTION OF INTEGRATION PROJECTS AND YOUNG PEOPLE
PROMOTION OF CULTURAL PROJECTS
SOCIAL COMMITMENT OF OUR EMPLOYEES



# SOCIAL COMMITMENT

**STRATEGY AND ORGANISATION** The acceptance of social responsibility for the social environment at all of NA's production sites is one of the central components of our corporate strategy. For NA, corporate responsibility means helping to shape the social environmental actively and long-term. We feel a deep commitment to the Hanseatic City of Hamburg, our headquarters. We involve ourselves in many sectors to benefit the city. In particular, we sponsor and support cultural projects and assist in the maintenance of important monuments and buildings. Social and integrative commitment is in the foreground, above all, in the South of Hamburg – the neighbouring districts of Veddel, Wilhelmsburg and Rothenburgsort, all of which are home to a considerable percentage of migrants. Another focus is on the sponsoring of team sports like volleyball and handball, which are characterised by fairness and the team spirit. The sports make an enormously important contribution to integration. We also show strong social commitment to our site in Lünen. Thus, we set up a foundation for the promotion of foreign languages in 1986, to commemorate the 125th anniversary of the former Hüttenwerke Kayser AG. The Hüttenwerke Kayser foundation gives scholarships to Lünen schoolchildren for trips abroad to learn languages. In 2007 four scholarships were granted.

In order to organise our social commitment effectively, we have defined criteria for the selection of projects that are closely connected with our core business:

- Focus on projects connected with copper and copper products, both with a professional and a cultural emphasis
- Commitment to long-term projects and cooperations

- Concentration on the development of the regions and the prospects of the people living there
- Connection with group locations with the emphasis on social aspects, education, sport and cultural projects
- Commitment to science and research
- Involvement in associations and federations

The Executive Board decides about the type and scope of the corporate commitment. The decisions made are realised and overseen by the Event Management, Group Communications and Human Resources Departments respectively.

# HIGHLIGHTS OF OUR COMMITMENTS IN FISCAL YEAR 2006/07:

- Promotion of education: Our projects to promote young people were once again a total success. We have newly started the 9-Plus project, which is concerned with the sponsoring of schoolchildren from the secondary general school and foreign fellow citizens. In addition, NA has sponsored the "environmental mobile", a classroom on wheels dealing with environmental and climate protection topics.
- Sport promotion: We were awarded the SportMerkur prize for our above-average commitment to the promotion of a female volleyball team.
- Promotion of cultural projects: The "Ballin-Stadt" project, of which we were a main sponsor, satisfied a professional jury shortly after opening and was given the History Award 2006.

**CHALLENGES AND TARGETS** The demographic change – here particularly the lack of skilled employees – as well as the integration of foreign fellow citizens are great social challenges. We want to make an active contribution in the preparation of solutions to these challenges, because NA also benefits from them: the internationalisation of our company requires the successful integration of foreign employees. This is why we are particularly involved in this connection and have become a firm member of the Integration Council of the Hamburg Agency for Social, Family, Health and Consumer Protection Affairs. To ensure that we have skilled employees in future, we have additionally been promoting young people for some time. We will steadily continue our involvement in both sectors in the years to come.

#### PROMOTION OF INTEGRATION AND YOUNG PEO-

**PLE** The future of young people is very close to our heart – particularly young people with a migration background, because their integration in the community offers NA opportunities for the future. We have therefore committed ourselves to offering young people special further education and training programmes in order to counter the lack of skilled employees. In addition, we promote friendly cohabitation in the community by sponsoring special sports projects.

**COMMITMENT TO EDUCATION** Good qualifications and further vocational training of employees are part of our corporate strategy. We follow new and unconventional routes in the education and professional skills of young people. These include, in particular, the work experience days and the 9-Plus pilot project – both in cooperation with the all-day school Slomanstieg in Veddel, the neighbouring district. Support is also given to kindergartens and schools like the Käthe-Kollwitz Secondary School in the vicinity of the Lünen works.

#### **» WORK EXPERIENCE DAYS AND 9-PLUS PILOT**

**PROJECT** As part of the work experience days initiated in 2003, pupils from the 8th class of the Slomanstieg School are introduced to a variety of mechanical skills in NA's training workshop every Wednesday. The aim is the vocational integration of secondary school pupils and immigrants in our neighbourhood. In addition to the successful work experience days, the 9-Plus pilot project, which was launched in summer 2007, is a further concept which should facilitate the often difficult start for young people in learning a trade. In the first year, twelve pupils were given instruction during the two-year pilot project on two days a week in the Slomanstieg School in order to close gap until they were ready for an apprenticeship. The curriculum certified by the Hamburg Chamber of Commerce included the subjects of German, mathematics, English and job orientation. The other three days were spent at the company gaining vocational skills in a variety of occupational areas, such as chemistry, administration, metal and logistics. The participants in the pilot project were presented with certificates issued by the Hamburg Chamber of Commerce in summer 2008 after successfully passing the final examination. Ten of the participants were subsequently offered apprenticeships at NA.



New routes for education: Work experience days and 9-Plus at NA

"THE "YOUR CHANCE ... TAKE IT!" CAMPAIGN
On 26 November 2007 the kick-off for the new school project "Your chance ... take it! was held in the assembly hall of the Slomanstieg School. In this project, the Niendorf discussion group — a get-together of more than 40 Hamburg personalities from industry and politics including representatives from NA — had taken up the cause of promoting juveniles and young adults with migration backgrounds. Migrants who are fully integrated in society should give the youngsters courage and strengthen their self-confidence by reporting on their experiences

"TECHNICAL UNIVERSITY DAY Just like any other industrial enterprise, NA is observing with concern that seemingly less and less high school leavers are currently deciding in favour of a technical degree and waiving their career opportunities in industry. The 27 February 2007 was therefore totally devoted to the 2nd Technical University Day. We opened our doors for pupils from the 12th and 13th classes from the Hamburg region.

Representatives from our partner universities as well as NA senior staff were there with information stands and presentations in order to rouse enthusiasm among the pupils for an engineering degree. Works tours were arranged to give a practical insight. The interest in the

Technical University Day was huge: more than 640 guests made their way to NA – about three times as many as at the first event in the prior year. The event was moderated by the popular TV presenter and graduate physicist Ranga Yogeshwar ("Quarks & Co."). As a result of the great success, another event was held in March 2008.

» "YOUTH THINKS OF THE FUTURE" The interplay of companies, schools and the youth of today is an indispensable step towards promoting the innovation readiness of young people and securing the future potential of industry and society long-term – particularly against the background of the lack of qualified personnel in technical trades and professions. The project "Youth thinks of the future", an initiative of trade and industry, encourages the pupils to meet the world of tomorrow with curiosity, openness, responsibility and personal commitment. Throughout Germany, companies are approaching schools in their vicinity as "godfathers" and forming future-oriented co-operations with them. NA is a committed partner and organised the innovation game for the third time in October 2007. Twenty pupils from the 12th class of the Kirchdorf secondary school went through an exemplary innovation process, in which they could develop their own products and services in teamwork.



In doing so, considerations focused on the topic "CO<sub>2</sub> reduction at Norddeutsche Affinerie". We welcome ideas from young people in the development of suitable action to take.

" THE ENVIRONMENT MOBILE ON TOUR NA has supported the environment-related educational work of the Schutzgemeinschaft Deutscher Wald, Landesverband Hamburg e. V. (German Association for the Protection of the German Forest, Hamburg branch) since 2005 by sponsoring the environment mobile. The environment mobile is a classroom on wheels that offers information and modelling games to young visitors on the subject of climate and nature conservation. A maximum of 14 school kids have sufficient room at seven work tops. The equipment includes technical instruments like microscopes and other laboratory devices, a video as well as its own water reservoir, which are used for the most varied projects for the children. Due to NA's sponsoring, the environment mobile can be used free of charge at school events or other public events. A second environment mobile will roll along through the Hamburg region in autumn 2008 – likewise sponsored by NA.

**COMMITMENT FOR SPORT** NA has been involved for decades in popular amateur sports. We follow the principle of sponsoring a number of projects in selected clubs that are admittedly limited but aimed at the long term and well thought out. As a result, we grant, for example, the clubs a financial basis for several years which enables them to plan and organise their events better. Particular attention is given to projects from or for youngsters, above all those living the south of Hamburg in the immediate vicinity of NA's works' precincts. Many residents in the districts of Veddel and Wilhelmsburg have a migration background. In fiscal year 2006/07 we sponsored the handball clubs SG Wilhelmsburg and Stolberger SV, the ladies volleyball team TV Fischbek, now NA.Hamburg, which plays in the 1st German

league, the hockey players at the Grossflottbeker Tennis-, Hockey- und Golf-Club e. V. (GTHGC) and the football clubs BV Lünen 05 and Lüner SV.

» SAILING AT THE NEW JETTY In 2006 NA together with SAGA GWG sponsored a jetty in the Müggenburger harbour in Hamburg-Veddel for the club "Get the Kick" as part of the water sports project "Elbstromer - Water Rats". In 2007 NA also made a donation to the club in order that the overheads could be properly covered. The boats can be hired by all the residents in the neighbourhood via the youth club "Haus der Jugend". In addition, experienced instructors have been teaching the pupils of the 4th class in the Slomanstieg school how to sail since the school year 2007/08. This optional instruction for the schoolchildren has to date been unique in Hamburg's south. Sailing is an exciting experience for the children and they learn important social competences because sailing demands team work and cohesion.





Schoolchildren from the Slomanstieg School receive sailing instruction



NA was awarded the SportMerkur 2007 for its involvement in sports promotion

**PROMOTION OF CULTURAL PROJECTS** As a result of its commitment to the City of Hamburg, NA is involved in a number of cultural projects to benefit the city. These are either connected with copper or concern the immediate neighbourhood of our sites, such as the district of Veddel.

**» BALLINSTADT** In the last few years, NA gave considerable support to and has sponsored the "BallinStadt" project, one of Hamburg's most important cultural projects. BallinStadt is the former area from which more than five million emigrants departed from Hamburg for New York/Ellis Island and South America between 1850 and 1939. NA was the first company to express willingness to make a generous financial donation of € 1 million to ensure that this very important exhibition for Hamburg would be completed. Since the foundation stone of the "BallinStadt" museum was laid in December 2005, three houses, which are faithful to the original designs, were rebuilt on an area of 3,500 m<sup>2</sup> by July 2007. The "BallinStadt" is a long-term project with changing special exhibitions, actively involving the residents of Veddel, in which, for instance, local youngsters are employed in temporary jobs and low-income

locals pay a reduced entrance. "BallinStadt" received the History Award in 2006 from the broadcasting station History Channel. With the "BallinStadt" project, NA is currently competing inter alia for the KulturMerkur of the Hamburg Chamber of Commerce.

"MINERALOGICAL MUSEUM Crystals shining in all colours, ores with a metallic shimmer and sparkling precious stones — in Hamburg's Mineralogical Museum mineral raw materials and ores are shown at their best. Not only well-known minerals like gold, silver or diamonds, but also rarities from all parts of the world are exhibited decoratively in large display cabinets. As a result of Hamburg's cutbacks in spending, the museum had neither the funds nor the personnel to operate regularly with corresponding visitor-friendly opening hours despite its high public acceptance. Thanks to NA's support in 2007, it will remain open on Sundays for a further year.



Opening of the Emigrant World of BallinStadt on 4 July 2007



The NA copper dragon "swam" on the Alster lake in autumn 2006



Rediscovered: bronze personalities from more than 1,000 years of German history

» CHINA TIME With a length of about 7 m, a height of more than 5 m and a weight of 4.3 tonnes, the copper dragon, which was crafted in eight months in NA's works, is a symbol of the meaning of China in the present-day global and copper economy. He took his place on the Alster lake near the Jungfernstieg from 13 September to 10 October 2006 as the prime exhibit for the CHINA TIMA series of events, which are very important for German/Chinese and particularly for Hamburg/Chinese relations. The unique copper sculpture was created by the sculptor Adam Ostrowski with the help of the former NA production engineer, Hans Glasshoff, and apprentices and welders at NA, who approached their unusual assignment with great dedication and commitment. At CHINA TIME 2008 in September 2008 the copper eye-catcher was again to be seen – this time in the area by the small Alster lake between the City Hall and Alster Arcades.

» TWELVE BRONZES – AN ODYSSEY In September 2007 Hamburg's Mayor, Ole von Beust, opened the exhibition "Twelve bronzes – an odyssey" in the City Hall, which showed twelve bronze figures of important personalities from more than a thousand years of German history. The figures had once decorated a ring chandelier in the Berlin Reichstag and had been moved in the last years of World War II to NA's works as part of the compulsory collection of raw materials in the wartime economy. Thanks to the courage and artistic appreciation of NA employees, it was possible to save former cultural assets, like the twelve sculptures, from being melted down.

#### » THE SCHLESWIG-HOLSTEIN MUSIC FESTIVAL

In 2007 the festival was a guest of NA on the Peute for the fourth year in succession. The evening was themed "audible Hungary" and the orchestra was conducted by the well-know Hungarian pianist and conductor, Zoltan Kocsis. By hosting the festival, NA would like to create a symbiosis between industry and culture and make a further contribution to the promotion of the Hamburg district of Veddel.



NA feels attached to the locations of its production sites

# » RESTORATION OF BUILDINGS AND MONU-

**MENTS** NA has been involved in the maintenance of important buildings and monuments in Hamburg for years. As a result, the company has supported the restoration of the copper roofs of the churches of St. Jacobi and St. Petri in the past. In 2008 work began on the new copper roof for the St. Michaelis Church, a landmark of the Hanseatic City. NA is providing the copper needed for Hamburg's unmistakeable landmark. At the same time NA is recycling the old copper removed in an environmentally friendly process and thus closing the metal's sustainable and resource-conserving cycle. NA is also participating in the general

overhaul of the St. Katharinen Church in August 2008, when it will sponsor the copper needed for the roof.

# SOCIAL COMMITMENT OF OUR EMPLOYEES

NA is an open company, which gets along as a good neighbour at all its production sites and is actively committed to the community. Consequently, we also support our employees' voluntary commitment for social projects.

**» COMMON PURPOSE** As part of the matrix programme 2006/07, which was initiated by the nonprofit-making organisation "Common Purpose" 2006, current and prospective senior staff from companies, administration, public bodies and nonprofit-making institutions debate a variety of the region's problems in compact seminars over a period of twelve months. The speakers are scientists, politicians and managers, who advise on how the participants and their organisations can make a concrete contribution to supporting improvements in Hamburg. The first seminar year began in Hamburg in November 2006. A total of 33 participants got together in all-day seminars at different venues on eleven days spread over nine months: in the Hanseatic Trade Centre in the Hamburg Chamber of Commerce or also in the prison in Fuhlsbüttel.

Participation in the matrix programme is limited with only one member of senior staff allowed per company. Two members of NA's senior staff participated in the seminar years 2006 and 2007 respectively, while another will utilise the unusual training programme in seminar year 2008. NA is aiming at participating regularly with one member of senior staff in order to draw attention to the needs of the city and its residents.

Further information on common purpose at www.commonpurpose.de



» CHANGING SIDES In the programme

"Changing sides", in Germany initiated in 2000 by the Patriotische Gesellschaft (patriotic society), senior staff go to social institutions for a week instead of practising their real jobs. They take over, for example, the care of handicapped people, accompany the homeless to the social security office and do homework with underage refugees. The participants have the opportunity of gaining experience that is far different from their daily routine and has a longterm impact on them.

NA participated in the programme for the first time in 2008. Two managers, one of which is a member of the Executive Board, changed sides as part of this special training.

**» HSH NORDBANK RUN** We were there again on 4 June 2007: the more than 20,000 participants including a team of 62 NA employees "ran up" a donation of more than € 100,000 for the "Children help children" campaign at the 6th HSH Nordbank Run in the HafenCity. The good cause counted on the 4 km course, not the times. € 5 per runner were donated to the organisation "Children help children", super support for the children and youngsters in low-income families. NA employees are regular competitors in the HSH Nordbank Run.

**Further information on** changing sides at

www.seitenwechsel.com



NA employees support the good cause by participating in the HSH Nordbank Run

# **SUSTAINABILITY AT CUMERIO**

CUMERIO IN THE NA GROUP ENVIRONMENTAL PROTECTION RESPONSIBILITY FOR EMPLOYEES SOCIAL COMMITMENT





# SUSTAINABILITY AT CUMERIO

# Further information on sustainability at Cumerio in the

Sustainability Report "Looking Forward" 2006 at www.cumerio.com/ en/corporateresponsibility



**CUMERIO IN THE NA GROUP** NA took over the Belgian company Cumerio in April 2008, a leading producer of copper wire rod and semifinished products. Cumerio's core business is the smelting, refining, recycling and reworking of copper and copper alloys. Cumerio is known worldwide for innovative technologies as well as for its product quality and customer service. A total of more than 500,000 tonnes of copper products p.a. are produced at the production sites in Belgian, Bulgaria, Italy and Switzerland. In 2007 Cumerio had about 1,450 employees and generated revenues of € 3.3 billion. The merger has created the largest integrated copper producer and processor in Europe. Cumerio's business operations always focused on sustainability and responsible care. The copper producer's mission statement stipulates that all activities should have a positive effect on stakeholders, such as investors, customers, suppliers, employees and people in the immediate vicinity of the production sites. Consequently, the company assumes both social and ecological responsibility. The aim is to unite economic prosperity and sustainability.

We will be integrating Cumerio's performance in our Sustainability Report in future. However, we hope to give you an impression already about how Cumerio cares for mankind and the environment.

**ENVIRONMENTAL PROTECTION** Cumerio is aware of the fact that the business operations of a copper producer have significant repercussions for the environment. The company therefore is perpetually endeavouring to pursue active and forward-looking environmental protection.

For this reason, all the labour processes are certified in accordance with the international standard ISO 14001. In addition, natural resources are conserved as well as energy consumption, emissions to the air and water and waste quantities continually reduced. Cumerio's environment management system guarantees that environmental protection is anchored in every aspect of the production process. Constant monitoring ensures that the processes are continually improved as regards environmental protection.

During recent years, Cumerio has started to implement the Kyoto Protocol which targets the reduction of greenhouses gases. Cumerio also works proactively on the fulfilment of other relevant standards, to which the Integrated Pollution Prevention and Control (IPPC) and the EU REACH law belong. Cumerio was thus one of the first companies in Bulgaria to receive an IPPC permit. Furthermore, as the result of an ongoing € 30 million investment plan, the SO₂ emissions at the important Pirdop plant were reduced by 50 % in 2007 compared with the prior year.

#### **RESPONSIBILITY FOR EMPLOYEES**

As a responsible company, Cumerio feels committed to its employees because the company's success is based on the satisfaction and dedication of its employees. For that reason, the company practices an open and clear dialogue between management and employees. Against the background of Bulgaria's accession to the EU, Cumerio started up the European Works Council (EWC), which should develop and strengthen the joint identity of all the production sites. In addition, several collective agreements enforced in 2008 ensure that the wage and salary structures of blue and while collar employees are adapted to the European trends.

#### Key environmental figures for the Olen, Pirdop and Avellino sites

		Ol	en	Pir	dop	Avellino	
	Unit	2006	2007	2006	2007	2006	2007
Input of recycled materials	%	40	43	9	11	2	1
Waste quantities	t	5,600	6,100	752,400*	740,400**	300	600
Quantity of recycled waste	%	73	68	9	14	75	88
Water consumption	1,000 m³	738	704	6,080	6,078	91	117
Energy consumption	TJ	1,636	1,633	1,913	1,643	315	341
CO <sub>2</sub> emissions	t	44,900	44,600	51,800	45,900	14,500	15,800
Metal emissions (air)	t	1.1	0.2	57.2	55.3	< 0.1	0.1
Metal emissions (water)	t	1.5	1.2	3.9	4.5	< 0.1	< 0.1
Capital expenditure on environmental protection	1,000€	2,120	330	13,840	17,550	130	30

<sup>\*</sup> of which more than 98 % fayalite (currently not marketable residues from slag treatment)

\*\* of which 97 % fayalite

In addition, occupational and health prevention at the sites represent an important part of corporate philosophy. A series of occupational safety campaigns started in 2007 proved to be very successful, particularly at the Pirdop and Avellino sites – the number of occupational accidents could be significantly reduced.

The Pirdop plant was commended in 2007 as the best Bulgarian employer with an excellent performance in occupational safety and health protection. Steady prevention is likewise the basis of successful health protection. Cumerio organises regular medical check-ups and prevention campaigns to instruct the employees in active health protection.

**SOCIAL COMMITMENT** Cumerio is an important employer and tax payer at all its production sites. As a responsible company, Cumerio knows that its business operations have an impact. The company therefore pursues intensive dialogues and far-reaching co-operations with the community in the immediate vicinity. At Pirdop, the Bulgarian location, Cumerio initiated an investment programme planned for three years. The programme supports social projects in the region. The annual budget is used inter alia for improvements in the roads, for the expansion of infrastructure for local schools and integration programmes for minorities. At Olen, the Belgian location, Cumerio is aiming at an open dialogue with the local residents by regularly publishing a magazine. The magazine explains the company's activities and thus provides transparency and creates trust.

# **GLOSSARY**

**AFFINATION** The process to separate silver from silver/gold mixtures in metallurgy.

**AGG** The General Act on Equal Treatment – otherwise known as the anti-discrimination act – das Allgemeine Gleichbehandlungsgesetz – was enforced in Germany on 18 August 2006. The purpose of the act is to prevent and remove discrimination and harassment on account of race, ethnic origin, gender, religion or belief, disability, age and sexual orientation.

**BEST AVAILABLE TECHNIQUE (BAT)** In accordance with an EU guideline, particularly environmentally relevant industrial plant must be operated on the basis of the best available techniques.

**CIS SOLAR CELLS** The CIS solar cell is a flexible copperbased solar cell. CIS stands for Copper-Indium-Selenide, the chemical components of the semiconductor layer of these solar cells.

**COMPANY SUGGESTION SCHEME** is a formalised instrument to generate and implement employees' ideas for improvements in work processes and the optimisation of technical systems. As an incentive and motivation, premiums are paid to those employees whose ideas are successfully implemented.

**COMPLIANCE** Compliance describes the adherence to laws and guidelines, but also voluntary codes in companies. Compliance is ensured by organisational action taken, including the appointment of a Chief Compliance Officer (CCO). The CCO manages the Compliance issues and reports violations to the Executive Board.

**COPPER CATHODES** In metallurgical terminology, the copper cathode is the high-purity product (copper content > 99.99 %) of the tankhouse.

**COPPER CONCENTRATES** A product resulting from the processing (enriching) of copper ores. Since the ores generally only have a copper content of 0.5 % to 3 %, the ores are enriched after extraction from the mine into concentrates with a copper content of 25 % to 40 %. Copper concentrates are quantitatively NA's main raw material.

**COPPER RECYCLING** Copper recycling is the industrial recovery of copper. Copper is regarded as an extremely sustainable raw material since it is practically inexhaustible as a material and can be recycled again and again without loss of quality.

**COPPER TANKHOUSE** The tankhouse — a hydrometal-lurgical process for the electrochemical refining of copper — is the last refining stage in copper production. Anodes and cathodes are hung in a sulphuric acid solution (electrolyte) and connected to an electric current. Copper and soluble impurities (arsenic, nickel, etc.) are dissolved from the anodes into the solution. Precious metals as well as elements and compounds that do not dissolve in sulphuric acid (e.g. lead, selenium) settle on the bottom of the tankhouse cell and form anode slimes. Copper from the solution is deposited on the cathode with a purity of more than 99.99 %.

**CORPORATE GOVERNANCE** Corporate Governance includes generally all the international and national values and principles for good and responsible business management. The guidelines apply both to the company management and the employees. In Germany, guidelines were laid down for business management in the German Corporate Governance Code 2002.

**CORPORATE RESPONSIBILITY** Corporate responsibility focuses on the acceptance of social responsibility by a company. The aim is to identify the impacts the business activities have on people, the environment and industry and to orient the corporate actions accordingly.

**DEMOGRAPHIC CHANGE** The term refers to the change in the composition of population age structure. Experts are unanimously of the opinion that the demographic change will change society and intergenerational relations, which will have numerous repercussions for all areas of life.

**EMAS** stands for Eco-management and Audit Scheme. Emissions In general, emissions mean the discharge of disruptive factors into the environment – e.g. toxic chemical substances that are a hazard to health or the environment. An important aim of environmental protection is to suppress or reduce hazardous emissions as far as possible in order to avoid environmental pollution, such as air, soil or water contamination and at the same time to protect people from exposure to this in their homes and workplaces.

**ENVIRONMENTAL MANAGEMENT** The environmental management or environmental management system in the company is concerned with the business environmental (protection) requirements and those of the authorities. Its purpose is to ensure the sustained environmental compatibility of the company's products and processes as well as the behavioural pattern of its employees.

FISCAL YEAR A fiscal year at Norddeutsche Affinerie AG is the period between 1 October of one year and 30 September of the respective following year.

**FUGITIVE EMISSIONS** Fugitive emissions – in contrast to emissions coming from factory stacks – are mainly emissions from ground-level sources, which frequently escape through gates, doors and roof vents into the ambient air.

**IRON SILICATE STONE** Iron silicate stone is a solidified smelting product from copper production. While sand (SiO<sub>2</sub>) is added, the iron contained in the copper concentrates is smelted into iron silicate (2 FeO x SiO<sub>2</sub>). Although it is comparable with natural rock in its structure, this artificially produced stone has significantly higher density and weathering resistance.

**GRI** The Global Reporting Initiative was set up in 1997 as an independent organisation with the aim of developing an guideline for sustainability reporting. The purpose of the GRI guideline is to standardise reporting on a company's business, ecological and social performance and should provide transparency and comparability in this connection.

**IMMISSIONS** Immissions are impurities, noises, vibrations, light, heat, radiation and similar environmental impacts affecting people and the environment (air, atmosphere, soil, water, plants, animals, etc.).

**ISO 14001** This globally valid standard provides the criteria for building up and auditing the environmental management of a company. If the external auditor confirms the adherence to the criteria, the company receives a certificate and thus verification of a wellfunctioning environmental management system.

KAYSER RECYCLING SYSTEM (KRS) The KRS is a plant for secondary copper production at Norddeutsche Affinerie AG in Lünen. In the KRS, converter copper is produced from recycled materials, such as copper-bearing residues, alloys and electronic scrap, which is then processed further in the anode furnace.

PRIMARY COPPER PRODUCTION Copper production from copper concentrates (primary raw material).

**REACH** The REACH chemical's law was enforced in the European Union on 1 June 2007, REACH stands for "Registration, Evaluation, Authorisation and Restriction of Chemicals". The law's aim is to record all material flows in the EU.

**SECONDARY COPPER PRODUCTION** Copper production from copper-bearing recycled materials (secondary raw materials).

**STAKEHOLDER** Stakeholders are all those groups, to which a company has a direct or indirect relationship as a result of its business activity. For NA, these include above all the employees, neighbours, customers, business partners, capital investors, policy-makers from politics and industry and the media.

**SULPHURIC ACID** Sulphuric acid (H2SO4) is a strong acid and is used by the chemical industry as a basis for numerous products and processes. Sulphuric acid is produced at NA as a by-product of primary copper production. The sulphur dioxide (SO2) arising during concentrate processing is oxidised further with added oxygen in a catalysing reaction and then dissolved in water, which results in sulphuric acid.

**SUSTAINABILITY** The concept of sustainability originally described the use of a regenerative natural system in such a way that this system can be maintained at a certain rate or level and thus its stock can subsequently grow in a natural way. The Brundtland Commission of the United Nations defined sustainability as a development that satisfies the needs of the present without compromising the ability of future generations to meet their own needs. As a corporate perspective, the concept of sustainability demands economically viable, ecologically compatible and socially just development.

**VALUE ADDED CHAIN** The value added chain covers the entire product route from the supplier through the producer up to the end customer or consumer.



# **GRI CONTENT INDEX**

In its sustainability reporting, NA is orienting itself to the internationally accepted guideline G3 of the Global Reporting Initiative (GRI) as well as the pilot version of the industry's addendum "Mining & Metals".

The guidelines demand information on management approaches, strategy and targets in the sustainability sector as well as numerous performance indicators for the aspects of economy,

product responsibility, employment, environmental protection, society and human rights. The orientation to these guidelines creates transparency and makes it possible to compare the sustainability performance of different organisations.

In the following NA is commenting on 124 of 140 requested data and thus, in its own opinion, reaches Level C as regards the application of the GRI-G3 guidelines.

on		2002	С	C+	В	B+	А	A+
Obligation	Self-assessment		GRI REPORT SELF DECLARED	ternally		ternally		externally
Optional	Audited by ex- ternal third parties			audited ex		audited ext		audited ex
Opti	Audited by GRI			Report		Report		Report

#### **KEY**

We are answering this indicator.

We are answering part of this indicator.
We are currently not answering this

indicator.

Replying to light grey additional indicators is optional. Light grey

AR 2006/07 Annual Report of the NA Group

FD 2008 **Environmental Declaration of NA AG 2008** 

Corporate website under www.na-ag.com

CoC Code of conduct

under www.na-ag.com/NA\_en/InvestorRelations/ corporate\_governance/verhaltenskodex.html

Indicator	Description	Reference	Completion
Strategy ar	d analysis		
1.1	Statement from the CEO	P. 1	••
1.2	Impacts, risks and opportunities	P. 1, 9	•••
Organisatio	onal profile		
2.1	Name of the organisation	Cover	•••
2.2	Primary brands, products and/or services	Cover	•••
2.3	Operational structure of the organisation	Cover	•••
2.4	Location of headquarters	Cover	•••
2.5	Countries and main production sites	Cover	•••
2.6	Nature of ownership and legal form	Cover	•••
2.7	Markets served	Cover	•••
2.8	Scale of the reporting organisation	Cover, AR 2006/07, P. 111 ff.	•••
2.9	Structural changes	Cover	•••
2.10	Prizes and awards	P. 30, 53, 61	•••
Report para	ameters		
3.1	Reporting period	Cover	•••
3.2	Publication of last report	Cover	•••
3.3	Reporting cycle	Cover	•••
3.4	Contact point	Cover	•••
3.5	Process for defining report content	Cover	••
3.6	Boundary of the report	Cover	•••
3.7	Specific limitations	Cover	•••

Indicator	Description	Reference	Completion
3.8	Joint Ventures, subsidiaries, leased facilities	Cover	•••
3.9	and outsourced activities  Data measurement techniques and the bases of calculations	Cover	•••
3.10	Revised statements	Not applicable	•••
3.11	Changes from previous reporting periods	Not applicable	•••
3.12	GRI Content Index	Included	•••
3.13	External assurance	Verification of environmental data, UE 2008, P. 36	•••
Corporate C	overnance, commitments and engagement		
4.1	Governance structure	www; AR 2006/07, P. 8 – 23	•••
4.2	Independence of Supervisory Board Chairman	AR 2006/07, P. 8 – 23	•••
4.3	Independence of the Management	AR 2006/07, P. 8 – 23	•••
4.4	Shareholders´ and employees´right to provide recommendations or direction	AR 2006/07, P. 8 – 23	•••
4.5	Compensation of Supervisory Board members	P. 42; AR 2006/07, P. 18 ff.	•••
4.6	Avoidance of conflicts of interest	CoC	•••
4.7	Qualifications and experience of Supervisory Board members	AR 2006/07, P. 8 ff.	••
4.8	Internal guidelines, code of conduct and principles	P. 6 ff.	•••
4.9	Overseeing of sustainability by Supervisory Board	AR 2006/07 P. 15 ff.	••
4.10	Evaluation of Supervisory Board´s performance	AR 2006/07 P. 15 ff.	•••
4.11	Precautionary approach in the company	P. 6	•••
4.12	External agreements, principles initiatives or memberships	P. 10 – 11 P. 10 f.	•••
4.13 4.14	Membership in associations and advocacy organisations Stakeholder list	P. 10 f. P. 9 f.	•••
4.14	Identification of relevant stakeholders	P. 9 f. P. 9 f.	•••
4.16	Inclusion of stakeholders	P. 9 f.	•••
4.17	Topics and concerns of stakeholders	P. 9 f.	••
Economics			<u>'</u>
Manageme	nt approach	P. 6 ff; AR 2006/07, P. 28 ff.	••
EC 1	Economic value	Cover; AR 2006/07, P. 110 ff.	•••
EC 2	Impacts of climate change	P. 30	••
EC 3	Organisation's defined benefit plan obligations	P. 51	•••
EC 4	Financial assistance received from government	None	•••
EC 5	Local minimum wage	Not specified	•
EC 6 EC 7	Local suppliers Local personnel	Not specified Not specified	•
EC 7	Infrastructure investments for public benefit	P. 58 ff.	•••
EC 9	Indirect economic impacts	P. 20 ff.; ED 2008, P. 11	
MM 1	Revenues, capex in public infrastructure, wages and salaries	Cover; AR, 2006/07, P. 111	
MM 2	Value added	Cover; AR, 2006/07, P. 111	•••
Environmer	nt .		•
Manageme	nt approach	P. 21, 36 – 37; ED 2008	•••
EN 1	Materials used	P. 36 f.; ED 2008	•••
EN 2	Use of recycled input materials	P. 36 f.; ED 2008	•••
EN 3	Direct energy consumption	P. 28 f.; ED 2008	•••
EN 4	Indirect energy consumption	P. 28 f.; ED 2008	•••
EN 5	Energy saved and efficiency improvements	P. 28 f. ; ED 2008	•••
EN 6 EN 7	Energy-efficient products Reduction of indirect energy consumption	P. 16 f.; ED 2008 P. 28 f.; ED 2008	•••
EN 7	Total water withdrawal	P. 25 f.; ED 2008	•••
EN 9	Water sources	P. 25 f.; ED 2008	•••
EN 10	Recycled and reused water	P. 25 f.; ED 2008	•••
EN 11	Land owned in protected or restored	P. 26 f.; ED 2008	•••
EN 12	Impact of business activities on biodiversity	P. 26 f.; ED 2008	•••
EN 13	Habitats protected or restored	P. 26 f.; ED 2008	•••
EN 14	Biodiversity management	P. 26 f.; ED 2008	•••
EN 15	Threatened animal species	Not applicable	•••
EN 16	Direct and indirect greenhouse gas emissions	P. 28 f.; ED 2008	•••
EN 17	Other relevant greenhouse gas emissions	Not applicable since less than the relevance threshold (N₂O, CH₄, FCKW)	•••
EN 18	Reduction of greenhouse gas emissions	P. 28 ff.; ED 2008	•••
EN 19	Ozone-depleting emissions	Not applicable	•••
EN 20	NOx, SOx and other significant air emissions	P. 23 ff.; ED 2008	•••
EN 21	Wasterwater discharges	P. 25 f.; ED 2008	•••
EN 22	Waste and disposal method	P. 27 f.; ED 2008	•••
EN 23	Number and volume of spills	P. 23 ff.; ED 2008	•••
EN 24	Transported waste	P. 27; ED 2008  No or only insignificant negative impacts on	•••
EN 25	Biodiversity value of water bodies	protected status and biodiversity of especially valuable water bodies	• •

Indicator	Description		Completion
EN 26	Minimisation of environmental impacts of products	P. 14 f., 16 f., 30; ED 2008	•••
EN 27	Reclaimed packaging materials	Not applicable	•••
EN 28	Compliance with legislation	No violations	•••
EN 29	Transport of products	P. 30	• •
EN 30	Environmental protection expenditures and investments	P. 23; ED 2008	• •
MM 3	Biodiversity management	P.26 f.; ED 2008	• • •
MM 4	Use of recycling material	P.26 f.; ED 2008	• • •
MM 5	Eco-efficiency of products	P. 14, 17	•••
MM 6	Hazardous waste	P. 27; ED 2008	• • •
Labour Practic	es and Decent Work		
Management	approach	P. 40 ff.	••
LA 1	Total workforce	P. 40	•••
LA 2	Employee turnover	P. 40	••
LA 3	Company benefits	P. 51	
LA 4	Employees covered by collective agreements	All employees except the Executive Board and Senior Management as stipulated in the collective agreement	•••
LA 5	Minimum notice periods	P. 51	•••
LA 6	Representation in occupational safety committees	1%	•••
LA 7	Occupational accidents	P. 52 ff.	•••
LA 8	Occupational safety and health care	P. 52 ff.	•••
LA 9	Agreements with unions	P. 51	•••
LA10	Training and education	P. 44 f.	•••
LA 11	Skills management and lifelong learning	P. 43, 45 f.	•••
LA 12	Performance and career development reviews	P. 43	•••
LA 13	Composition of governance bodies and employees	AR 2006/07, P. 12 ff.; und P. 46 ff.	•••
LA 13	Ratio of basic salary of men to women	P. 42 f., 48	•••
MM 10	Works shutdowns	None planned; P. 40	•••
Human Rights		N. 1. 10 11	
Management		Not specified	•
HR 1	Human rights aspects in investment agreements	Not specified	•
HR 2	Screening of suppliers and contractors	Not specified	•
HR 3	Training of employees	Not specified	•
HR 4	Incidents of discrimination and actions taken	P. 46 ff.	••
HR 5	Endangering of human rights	Not specified	•
HR 6	Child labour	Not specified	•
HR 7	Compulsory labour	Not specified	•
HR 8	Training of security personnel	Not specified	•
HR 8	Rights of indigenous people	Not applicable	•••
Society			
Management	approach	P. 8	•••
501	Assessment of impacts of operations	P. 24, 26, 30	•••
SO 2	Identification of risks related to corruption	Not specified	•
SO 3	Employee training in anti-corruption policies	Not specified	•
SO 4	Actions taken in response to corruption	P. 8	••
SO 5	Public policy positions and lobbying	P. 10	•••
			•••
506	Contributions to parties and politicians	Not specified	
507	Anti-competitive behaviour	No incidents	•••
SO 8	Compliance with regulations	No violations	•••
MM 7	Impact of operations on social environment	P. 26 f.	•••
MM 8	Small mines	Not applicable	•••
MM 9	Resettlement policy	Not applicable	•••
MM 11	Land rights	Not applicable	• • •
MM 12	Emergency and crisis management	P. 22	• • •
MM 13	Occupational diseases	P. 54 f.	• • •
Product Respo			
Management		P. 15	••
PR 1	Customer health and safety	Not specified	•
PR 2	Compliance with regulations	No violations	
PR 3	Mandatory labelling of products	P. 32 f.	•••
PR 4	Violation of the law	No violations	•••
PR 5	Customer satisfaction	P. 15	• •
PR 6	Guidelines for advertising, promotion and sponsoring	Not applicable	•••
PR 7	Compliance with voluntary code of conduct	Not applicable	•••
PR 8	Data protection	No complaints; P. 15	•••
PR 9	Compliance with regulations	No violations	•••

### **IMPRINT**

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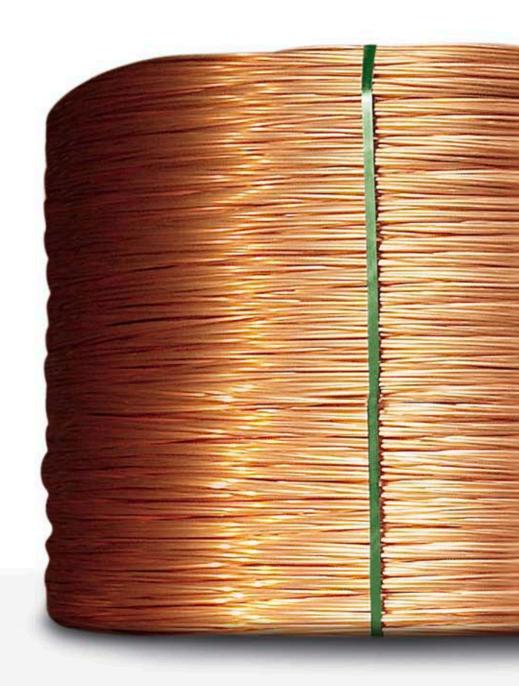
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