

# WANHUA CHEMICAL GROUP CO., LTD RESPONSIBLE CARE REPORT 2015



创建受社会尊敬、让员工自豪  
国际一流的化工新材料公司

Become a world class innovative chemicals company with deep  
pride in our people and to gain respect from society.





**05** Professional team for emergency response



**25** Perfect safety culture depends on strong leadership



**37** WANHUA is widely recognized and affirmed by the industry and society

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# FOREWORD



WANHUA CHEMICAL GROUP CO., LTD CEO  
Zengtai Liao

Guided by the theme “2015, A Year of Cost Control”, *Wanhua's* employees with remarkable enthusiasm and teamwork spirit performed their duties conscientiously, thus steadily enabling *Wanhua* to sail through smoothly during this challenging moments.

In 2014, as soon as Phase 1 project of the Industrial complex was concluded with the commissioning of MDI project, the constructors immediately immersed themselves into Phase II of PO/AE construction at an amazing speed.

Also In 2014, Ningbo Industrial Park has achieved production target by significantly upgrading lean management and by implementing a series of new management initiatives which contributed to lower cost of production and improved safety levels.

In the past year, our colleagues in Zhuhai Project overcame difficulties of humid climate and made tremendous progress and finally achieved in meeting target dates by fully completing the construction.

Last year, we also saw another fruitful year of innovations for *Wanhua*. The manufacturing technology of HDI monomers was upgraded and the first industrialized HDI biuret plant, 10kt HMDA and 10kt NPG plants were commissioned successfully, outputting quality products and decent profit.

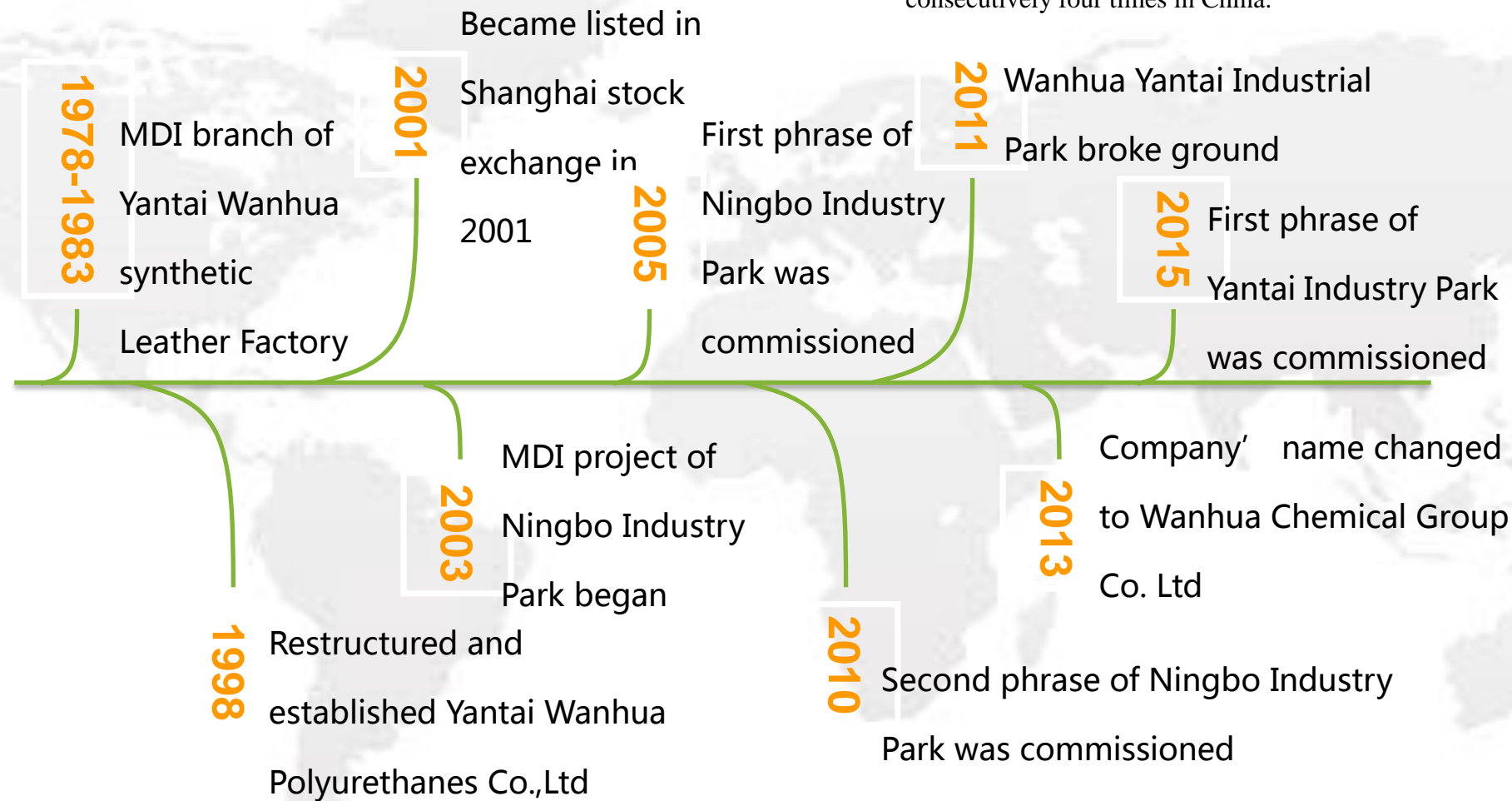
At the same time, the operational efficiency of BorsodChem has been substantially upgraded through continuous improvement on operational management.

I believe that, “*He who has persistence can have what he will*”. From now on, I expect that all fellow colleagues in *Wanhua* Group, home and abroad, to be united as one, to share our common belief and vision. We are bound to surmount all difficulties and make new achievements and glory.

About Us

Wanhua is involved in production and sales of PU series products, isocyanates and polyols; petrochemical products like PO/AE; functional materials of water-based coatings and the specialty chemicals. As the most competitive MDI producer in the world and the biggest TDI supplier in Europe, Wanhua is the only independent Chinese enterprise that has leading technology that boasts MDI intellectual property rights.

In 2011, Wanhua Ningbo, obtained award of Recognition from China Chemistry Industry Association for being best overall performer. Wanhua chemical was also awarded third place of the Top 100 Nationwide Innovative Enterprise Ranking in 2012. Wanhua obtained the best practice enterprise of responsible care in domestic petrochemical industry in 2014. Wanhua won the Governor Quality Award in 2015. Wanhua won the Hewitt's Best Employers for consecutively four times in China.



Since 2005, Wanhua has developed an international strategy and actualized it stage by stage. There has been R & D base, production base and business center domestically in Yantai, Ningbo, Beijing, Zhuhai, Chengdu and Shanghai; besides there are corporations and offices in United States, Japan, India and others in more than ten countries and regions. Wanhua Chemical has acquired a Hungarian chemical company Borsod Chem in 2011, which was a landmark step in its international strategy.

In order to make Wanhua, a world class innovative chemical company, Wanhua's first approach was to listen to the needs of our customers, as guidance to increase core competitiveness, talents, operation excellence and advance corporate culture to solidify our foundation and as a powerful guarantee for our continuous growth. We are also implementing a strategy of internationalization, integration, diversification in the field of high-tech and high value-added chemicals for future growth.



# ABC Basics About Emergency Response



Those who have visited Yantai Industry Park will be deeply impressed by its emergency rescue center. The 2-storey building is located in the east of park with more than 10 huge red metal doors, which symbolizes its strength, dignity and mission. You can see the most advanced fire vehicles and protective equipments in the building. It is routine for the firefighters to complete their intensive physical training outside the building. Walking through the center, one would also be impressed with the advanced communication equipments and the fully furnished living facilities.

## Emergency Response

Emergency response principle is to regulate corporations to have quick and effective response to minimize losses due to accidents in situations of emergency. The emergency response system involves the manufacturing site, surrounding communities and the public at large.

## Awareness

Wanhua's emergency system incorporates 17 comprehensive emergency plans, 206 specialized emergency plans and 368 on-site disposal plans. Besides, the system was established by

using ICS pattern to ensure quick and effective response. Our newly established emergency command system, coupled with real-time monitoring system of major hazards and simulation system enhances the coordination and collaboration during emergency.

## Best team

Wanhua Industry Park has more than 90 emergency response specialists including 80 firefighters. There are also 10 different types of fire trucks including one chlorine-elimination truck.

The medical center has 11 ambulance men, 16 rooms, 15 beds and a fully equipped ambulance. The medical center has established direct emergency medical linkage system with neighboring hospitals.

## Collaboration

Wanhua has built good relationship and cooperation with neighboring companies, hospitals and government.



## 119 Emergency Activity

25 teams from Industry Park took part in the activity hosted by firehouse on 9 Nov, 2016. The activity consisted of 3 parts showcase of emergency equipment, contest of emergency skills and fire drill by firefighters.



## Yantai Annual Petrochemical Fire Drill in 2015

Yantai annual petrochemical fire drill, hosted by government and co-organized by Safety Supervision Bureau, fire detachment and Yantai Port, was held on 16 July, 2015. Wanhua, Fire brigade made great contribution to the drill which deployed 23 emergency vehicles and 90 people. In the drill Wanhua dispatched a 53 Midden high fire track, two high-power foam fire tracks and 16 firemen.

Also it was for the first time Wanhua fire brigade utilized fire pipe network to endure long distance and mass water supply for incident, which set a precedent that neighboring enterprises should help and cooperate with each other to minimize the loss when emergency situation arises.

# Community Awareness

Wanhua has adapted a “people orientated policy” in its rapid development to build better relationship and understanding with the surrounding communities. It’s attaches great importance in communication with local communities to keep them updated on important issues.

# This is Wangjiawa Community



China Responsible Care Conference was held in Beijing on 10 June, 2015. The conference was organized by CPCIF and AICM and the theme of conference was “Green Chemical Industry and Sustainable Development. The conference attracted participation from a number of chemical companies and associations. Mr. Michael Chen, VP, delivered a speech on “Developing Green Chemical, Promoting ecological civilization” and introduced Wanhua’s “Three No’s” concepts.



**Wanhua’s Vice-President Michael Chen delivering a speech on RC conference**

In February, 2015 Wanhua approached Wangjiawa Community in Qixia to offer help and to finance certain community projects initiated by Wanhua.

As part of community project, Wanhua helped the residence of Qixia to prepare for the Spring Festival by renovating their old buildings, preparation of food.

The residence were deeply moved by Wanhua’s initiatives. Wanhua considered the residence of Qixia as its own employees. “We regard Wanhua as our relative not just a common company because of their consistent dedication in re-building our village”, said Mr. Wan.

With the help of Wanhua, the small village has made great changes. The roads were repaved and drainage facility was improved, which offered great convenience to them. Besides “Wanhua Square” also provided them with a place to do organize functions and community gathering.



# The changes of my home

## Hanbin's story

I was born in a remote farming village with only 200 households. People here lived a very simple life and they make a living by selling apples. Our first encounter with Wanhua, is just like a dream come true, for the villagers. Wanhua, has brought in many changes to our village.



### The way towards big harvest

Every year, before autumn the villagers become busy with their apple harvest, which takes them more than half year to get fully prepared. However, the mountain road gets muddy and rugged in summer.

The villagers are forced to use tricycles with small baskets to transport apples through this main road. Due to the ruggedness, apples get damaged by the constant squeezing and

collision, which leads to

depreciated value.

Eventually, with the help of Wanhua, the mountain road was paved with concrete and this has led to increase in harvest and quality of our apples.



### Pure water • Pure friendship

The main source of drinking water is from wells. However the wells became contaminated due to landfills and newly built farms. Since, then the villagers had to fetch water from locations far away from the village using by plastic barrels.

This becomes critical during the winter months when the villagers need to wait in long queues to get the water. All that changed this year upon my return to village, when I found some barreled water with Wanhua's label. Wanhua, has bored a deep well and equipped it with water purifying system. Now villagers can get access to clean water easily with an electronic card system.

### Warm light • Warm heart

In my early childhood, I was always frightened of darkness as the village only had a few lights outside. Every year, before dawn of Lunar New Year's Day, the villagers will visit their family and friends with small lanterns and flashlights to brighten the dark alleys and paths, but it is less effective. This situation didn't change for many years until this year.

Now all the main roads are fitted with street lights and the village has becomes so bright and beautiful..

Wanhua really made a huge impact to our lives and have contribution immensely to our the growth of our village. This inherently reflects Wanhua's caring attitude towards it's surrounding community growth.



New office buildings supported by Wanhua



Wanhua treatment station of pure water

## What kind of education do we need in the future?.

Education concentrates more on the development and cultivation of learning ability based on family education, school education and social education and on the premise that people have awareness of autonomous learning. People get more pleasure in learning through personalized education and cultivation with the concept of, "Knowledge changes fate, Education changes future".

What kind of education do we need in the future except for advanced teaching facilities? What education system can fit in with the needs of the society? On Sep 30, 2015, 4 doctors from Wanhua, went to a primary school to communicate with students, parents and teachers on different modes of learning and in improving reading cultivation and interest among students.



## Inspiring new thoughts in chemistry

In July 30, 2015, a competition was held and was sponsored by Wanhua on innovation titled- "Chemistry makes life better". The competition attracted around 430 students and attracted participation from more than 20 universities. Finally 10 teams who were shortlisted and had their final performance in Yantai. The competition was very challenging and finally group X-energy from East China University of Science and Technology emerged as the winner.



《Their topic-The application of traditional polymer material in new energy, —The preparation for key materials of stretchable super capacitor》 was a big hit.

The competition was a great success for, it not only activated their ability of innovation but also improved the ability of practical skills. Wanhua, intends to organize more activities like this in the future.



“Wanhua has good relationship and cooperation with China's top science and Engineering Universities. “I hope this competition can help society achieve a better understanding of chemical industry.”  
Dr. Carl Hua, VP  
Wanhua Chemical  
Group



## Future scientist at WANHUA Kid' Lab



In order to activate the creative thinking and cultivate the interest in science, Wanhua recently organized a chemical science activity, called- "Magic Lab".

In Nov. 7, 2015, the first step of "Magic Lab" was launched in Yantai successfully. Doctor Yu from R&D Department and his team, thrilled the students with their good knowledge on chemistry.

Here, students were introduced with basics of chemistry, petrochemicals and the importance of environmental conservation.

His interesting and vivid introduction stimulated their curiosity and interest in chemistry. Then the next 3 interactive experiments made students feel the charm of chemistry through hands-on practice. The children said they can get the pleasure as well as knowledge. Certainly their parents have positive attitude towards this activity also they showed their sincere anticipation for next activity. "Magic Lab" was a great success that stimulated children's interest in chemistry and enriched their knowledge about chemistry. Wanhua will put the conception of responsible care into practice and organize more activities like this to stimulate the interest of children and cultivate more and more talents in chemical industry for society in the future.



## Making "why" love "wow"

Every time when the children see the chemical experiment they will be surprised. This year the children from Ningbo and Yantai who took part in the "Magic Lab" were so lucky to explore the chemistry world like a scientist.





# “Love at Wanhua”

It was a great day on Sep. 9, 2015. The 9th mass wedding ceremony “Love at Wanhua” was held in Yantai. 77 Couples from all over the world including Beijing, Ningbo, Yantai, Shanghai and America, together with their relatives attended the big ceremony. The ceremony were participated by 750 people which was considered to be the largest event ever held in Wanhua’s history.



When the pastor asked gravely: “Will you be with him/her forever no matter what happen in the future?” All the couples firmly answered yes without a second thought. Everyone present could feel the sense of love and the harmonious atmosphere was filled with the graceful music. Wedding is short but love will last forever. Anyhow, Wanhua will be their harbour forever.





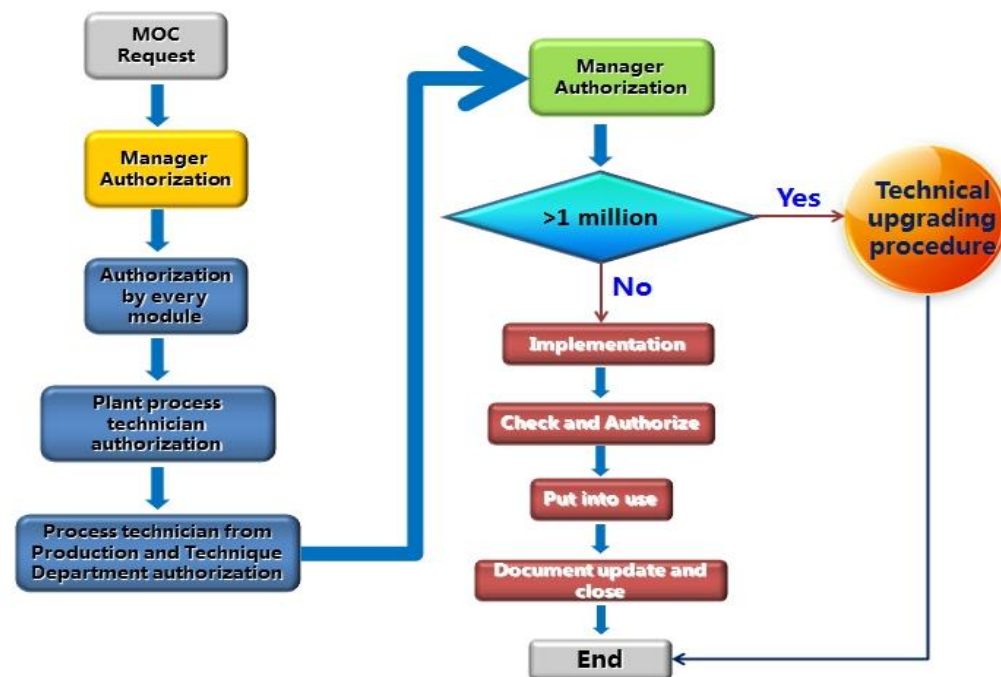
# Process Safety

Wanhua emphasizes on process safety as a key factor to manage the process designs, equipment's and process incidents.

Wanhua has set up a "Zero Incident" goal to establish a sound process safety management system with a series of process safety standards, programs and methods of assessments.

## MOC(Management of Change)

In order to ensure all the changes can be detected and controlled, Wanhua has established MOC procedure to ensure the effective assessment before the implementation of changes which could avoid damages to process, facilities and prevent accidents.



## LOPC (Loss of Primary Containment)

LOPC and its relevant statistics on KPIs brings improvements process safety management. Wanhua reports, summarizes, analyzes and investigates all LOPC to keep track of the implementations. Wanhua issues monthly LOPC report and warning information through these relevant statistics and these report includes KPI, typical problems, proposals for optimization of technology and management.

## LFI(Learning from incidents)



In order to improve employees' safety skill, Wanhua requires that employees must conduct incidents sharing during shift meeting. Besides, Wanhua also has a monthly meeting to share and analyze typical incidents for all SBUs. SBUs will gain some useful knowledge from leaning and analyzing the incidents. Also some good ideas coming from discussion and brainstorming will be shared with all staff.

## Monthly report

Wanhua issues monthly report on process safety in order to keep employees informed timely about the dynamics of process safety. The monthly report also covers KPIs, incidents and other details of process safety.





## Wanhua's successful startup of H<sub>12</sub>MDA and ADI plants

Yantai Industrial Park, successfully commissioned both H<sub>12</sub>MDA and ADI plants into operation after 2 years of construction and preparation in June 2015.

Much of the reward goes to the continuous effort of our research employees and constructors since its inception.

The successful startup of H<sub>12</sub>MDA and ADI proves that technical innovation is key priority to improve core competitiveness and Wanhua is capable and competent in managing huge construction projects.

Wanhua's H<sub>12</sub>MDA and ADI products have wide applications in wind power generation, high-speed railway, insulating paint and in environmental protection fields.



## Wanhua's successful startup PO/AE integration



Wanhua Yantai Industrial Park (phrase1) covers an area of 5.3 square kilometers, and investment of 30 billion RMB. It is one of the largest industrial projects in Shandong Province

The main construction started in 2011 in two phases which are i) MDI integrated project and ii) PO/AE integrated project. The MDI integration project included MDI, TDI, coal gasification, synthetic ammonia, nitric acid, nitrobenzene, aniline, methanol, formaldehyde, HCL oxidation, air separation, chlor-alkali, thermoelectricity etc; The PO/AE integration project included PDH, PO, acrylic acid, polyalcohol, LPG storage caverns etc.) ; special polyurethane project (including TPU, modified MDI,PPG,WPU etc.) ;special amine project (including HMDI, IPDA, IPDI etc.) ; port (including liquefied wharf, liquefied hydrocarbon terminal, coal port.) ; railway (only used in industrial park) ; solid waste utilization project and other old factory relocation projects.

Successful startup of PO/AE integration marks that the first phase of Yantai Industrial Park is commissioned completely.



# Pollution Prevention

If enterprises don't pay much attention to energy saving and ecological protection, and if they don't give up the old style such as high input, high cost and low efficiency, the development of such kind of enterprises will be increasingly impeded by resources. In order to achieve sustainable growth and advance in green chemistry, Wanhua implemented the three zero(0) concept of "Zero Injury, Zero Accident, Zero Emission".



In order to achieve effective control of pollutants, Wanhua established a rating system to control pollutants and reduce pollutants from origin through "3R" (Reducing Reusing Recycling). Combined with some management methods like LOPA and BOW-TIE, Wanhua also developed EI analysis and EI assessment as management tools to ensure the comprehensiveness and adequacy of management of environment risks by 14 key steps. We have identified SEA (Significant Environmental Aspect) of company and established control measures according to the prevention and mitigation measures.

### Reduction of greenhouse gas emission

Wanhua did a lot of work like CER project, CCER project and carbon emissions monitoring, which gave a good foundation for the carbon trading market. In 2012 Ningbo Wanhua developed N20 CER project and in 2015 Yantai Industrial Park developed N20 CCER which can greatly reduce CO emissions.

Meanwhile, both the industrial Parks have achieved a dynamic system for monitoring of carbon emissions, which provided data on monthly emissions (Figure1) and annual emissions (Figure2) for MDI and PO/AE integrated plant.

### Energy Saving

Wanhua has also set up a strategic commission and an energy saving

commission involving the relevant departments including R&D, Marketing, and HSE for effective utilization of resources and environment protection. The goals of energy saving were accomplished well through the three-level energy management system. We also conducted audits to improve our risk management. For instance, Wanhua engaged a consultant in 2015 who proposed 14 energy saving projects which could further save 20 million RMB/year.

In practice of energy saving, we promoted the comprehensive use of energy and reduced production energy consumption greatly through advanced technology, which resulted in saving 15916 ton of coals.

### Material saving

Wanhua has an advanced real-time monitoring system (MES) and all control rooms are equipped with scheduling monitors. Scheduling centers are able to monitor accurately and schedule effectively by MES. The consumption of materials can be reduced significantly by reducing the proportion of hydrochloric through technology, which resulted in saving 56809 tons of raw salt.

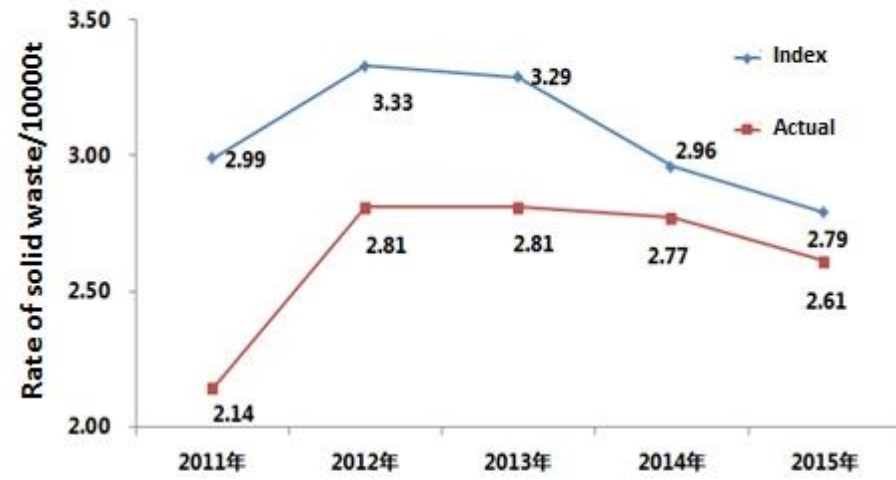
### Water saving

Waste water can be recycled largely by UF+RO and we recycled 30 tons of waste water in 2015. We also recycled 140 tons of Condensate water to be used as process water through condensate pipe network

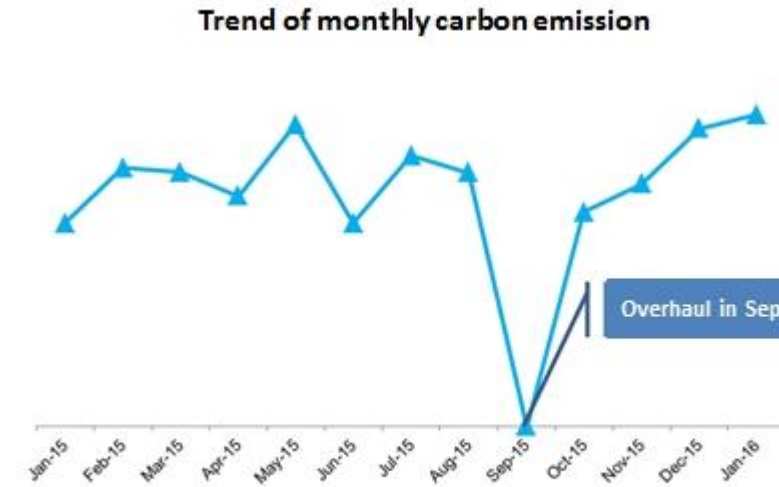




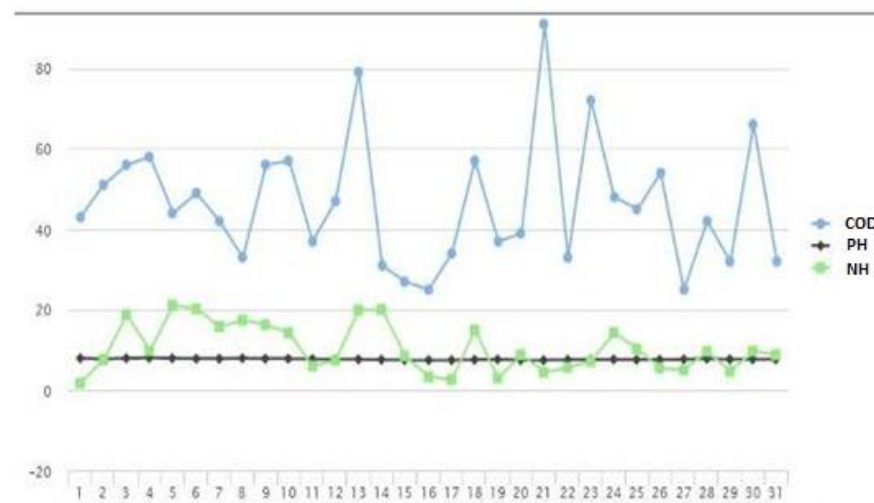
# Environment database in 2015



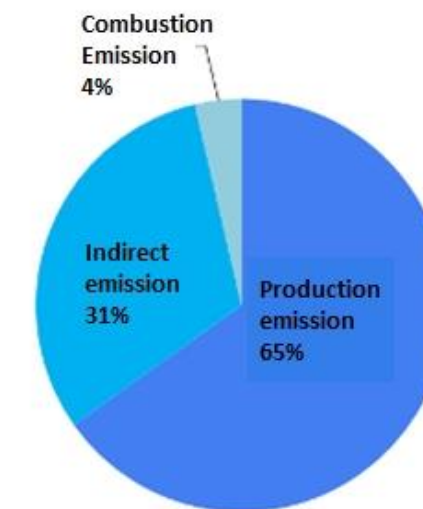
Rate of solid waste of polyurethane business in 2015



Carbon footprint in 2015



Disposal of waste water in 2015



Carbon footprint in 2015

# Occupational Health & Safety

The purpose of occupational health and safety is to manage safety of production and occupational health when implementing responsible care, which will improve safety awareness and safety skill for both employees and visitors to keep away from incidents and occupational health disease. So companies must take all the effective measures to eliminate or control risks to prevent safety incidents; and they will also take all the measures to prevent or minimize hazards caused by occupational hazardous factors in case of occupational poisoning, chemical burn and any other occupational disease.

## Regulation sharing by managers

Good leadership is cornerstone of implementation of HSE regulations. So Wanhua organized the regulation sharing activities conducted by management in order to help staff achieve a better understanding of HSE regulations and create a good safety atmosphere within company-wide.



《Safety Accountability of Area》 by CEO

## 520 Safety warning day

20th May, 2015 was the second time of annual 520 safety warning day. Wanhua wishes to conduct safety training and improve employees' awareness on this day.



520 safety warning day in Yantai headquarter



2015 HSE annual meeting in Yantai headquarter

## HSE annual meeting

“Strengthen fundamental management, Promote safety culture”, the HSE annual meeting was successfully held on Nov.27 in Yantai. The main topics were how to establish effective platform of safety sharing, how to promote “Safety Standardization” and how to manage “Two Focus One Major”

## 5mins Safety sharing

——from Du's perspective

“Many a little makes a mickle”. I believe 5mins safety sharing during handovers can help us achieve the goal of “zero incident” step by step and we could learn some knowledge and experience from other incidents and enhance the impletation of safety regulations by evoking employees's awareness and motivating them.



# Distribution Safety

The purpose of distribution safety is to manage hazardous chemicals during storage, transportation, distribution and it is applicable to all kinds of transportation including road, rail, water, air and pipeline transport. Distribution safety can ensure effective implementation of emergency response to minimize the damage cause by hazardous chemicals to people and environment.



## Storage management

Transportation of Petrochemicals is very dangerous especially on a long distance., Wanhua Logistics initiated a project to install large volume tanks at every 800km distance to reduce risks and improve emergency response. Currently, Wanhua has rented 8 storage areas and 18 tanks, a total of 70,000 cubic meters of external tank which costs 40 million a year.



## Road transport

Nowadays many trailers are likely to carry 2 containers, but it would be highly risky if they are overloaded, especially for night driving and bad weather, which may cause heavy accident because of being prone to losing control of vehicles. In order to eliminate high risk which may be cause by trailers carrying in this way, Wanhua required that all trailers must carry only 1 container in 2015, which roughly increased 4 million Yuan freight every year.



## Customer support



With higher growth predicted in Chinese polyurethane market, the disposal of chemical packagings have become major concern. As a responsible company, Wanhua has advocated to our customers to buy products in bulk to reduce the damage. However, customers lack of experience in tank building, equipment purchasing and unloading of bulk packagings. So Wanhua provided great support for customers including construction of tank, trainings for technicians, procedure of unloading, visiting customers site and inspection of equipments. Upto now, Wanhua has handed out more than 170 boards for unloading process.

## Stop Sign

Wanhua requires that all the vehicles must comply with Stop Sign in industrial parks to avoid traffic accidents, i.e., all drivers must stop the cars and wait for at least 3 seconds to confirm the safety when seeing stop sign. In 2015, Wanhua industrial park spared no effort to enhance this regulation and it did work well under high frequency inspections.



# Ship Transportation Safety

For ship management, Wanhua has established a comprehensive ship and terminal management system that provided technical support and professional trainings to our contractors. Wanhua, also organizes yearly ship owners safety management conference.

The successful anchoring of BAOQING to load 3000GT propane at berth No.13 of Wanhua Yantai terminal to load LPG is clear indication that Wanhua has the ability for steady supply of raw materials to our petrochemicals producers in the future.



Mar 5, BAOQING successfully arrived at Wanhua Yantai terminal



Sep 9, The first ship safety management meeting convened in Yantai

The risk of transportation by ship is continuously high as the overseas sales of MDI raw materials and petrochemicals increase year to year. The first ship safety management meeting was convened in Sep 11, 2015 in Yantai. The conference focused on ways of implementing ship risk assessment and to improve the carriers qualification process and to share contractor management experience in enhancing overall ship safety management.

GALAXY, 230m long, 37m wide, loading more than 34MT of propane and 11MT of butane, after successfully anchoring at Yantai west terminal.



June 21, GALAXY successfully arrived at Wanhua Yantai terminal





# Product Stewardship

Product Stewardship is very much an integrated business process for identifying, managing and minimizing impacts to the health, safety and environment (HSE) at every stage of a product's life cycle.

In Wanhua, product stewardship demonstrates our commitment to responsible HSE management through active assessment of our products at every stage in their life cycles, from the sourcing of raw materials, through manufacture and use, to eventual disposal. This involves working very closely with our customers, suppliers and others in the supply chain to ensure that they understand the HSE opportunities related to our chemicals and products.



## Design & Development

A positive approach to product stewardship is critical at the design and development stage for a new product, because environmental benefits and positive health and safety features can be designed into the product by our development teams. If we get it right at this stage, the product stewardship task becomes that much easier through the rest of the product life cycle.

## Supply

Wanhua sources an extensive range of raw materials from many different suppliers across the globe. The supplier base is actively managed by our central and site-based purchasing teams. In order to ensure that products bought by Wanhua meets compliance and are packaged and transported for use safely.

## Manufacture

Production takes place at different plants across the world. In all situation, the environmental impact and safety and health of our production personnel and the safety and health of the communities living around our sites are paramount importance to us..

## Storage, Packaging & Distribution

Wanhua employs logistic service providers for all of its distribution. Carrier assessments are conducted at initial stage of contracting to ensure transporters maintain a very high standard of HSE.

## Sale & Use

We provide appropriate support, advice and information to customers to aid understanding of our products wjich they are dealing with and help them to implement high standards of HSE performance in practice. We endeavor to ensure that such advice is both accurate and up-to-date through continuous assessment of all new information and data.

## Recycling

The product stewardship options at this stage in the life cycle are very much influenced by the activities at the first stage in the life cycle product design and development. Together with our stakeholders we aim to create more environmentally friendly or safer products, designed for waste avoidance, and to facilitate recycling or reuse wherever possible. ■



Jan 16, Wanhua met our MDA customer from UK



Apr 28, Wanhua made a speech on the Vender's conference of Bosch and Siemens.



July 21, Wanhua communicated with its customer on the site



Oct 9, Wanhua's customer annual successfully hold in Suzhou.



# Impetus China's industrial restructure



Our TPUs products provide our customers with excellent properties, which could improve protection level of cable sheath and electrical connectors. Our portfolio of products are widely used in coating, UV resists and high temperature resists.

Dr Qishan Huang  
TPU SBU GM

Wanhua's, Wanthane® TPU and WanBlend® TPU products are widely adopted in the field of automobile, energy and daily products.

Wanthane® TPU is characterized by good wear resistance, excellent mechanical properties, acid and alkali resistance as well as easy processability. WanBlend® TPU has got SGS, RoHS and REACH certification, and has passed rigorous flame retardant test.



PC resin and modified products are independently developed by Wanhua, which include common series, flame retardant series, glass fiber series and alloy series. Their perfect properties could be widely used in electronics, automobile, architecture, optical and medical market.





# World's green energy future

From vehicles to rotor blades, from construction to home furnishing...  
The “green energy” trend, promoted by the needs of energy efficiency and  
environment protection, is now everywhere in our life.

The world energy demand has continuously increased with the development of major economy. However, most of them use traditional fossil fuel which causes very serious environmental issues. Green energy, such as solar energy and wind energy is attracting more attention as alternative energy sources. Wanhua has developed a series of special amine products which provide excellent material for green energy.

Dr Ding Hao, Special Amine SBU GM



Wanhua's, Special Amine continue to develop and markets various amines. Current product portfolio includes WANAMINE MDA、WANAMINE H12MDA、WANAMINE IPDA and WANALINK 6200.

Specialty Amines products offers excellent physical and chemical properties, and are widely used in insulated paint, bismaleimide resin, coatings, polyamides, PU to improve downstream products performance and market competitiveness.

Special Amines is committed in developing more high quality amines to cater a variety of customer diversified demands and for the development of specialty amines industry.



# Our Honors 2015

As a responsible company, Wanhua is dedicated to sustainable social development. With our long-term oriented economic success target, Wanhua is active in a variety of ways in the core fields of education, environmental protection and community development.

While continuing with its high-speed development, Wanhua takes priority of health, safety and environmental issues of employees and the community at large. We pursue harmonious development between employees, the company and the community and have implemented the six core elements of Responsible Care throughout the development process.



**Jan 22,** Wanhua won Governor Quality Prize of Shandong province

**Mar 4,** Wanhua won the first prize of Yantai technology invention 2014 and the first prize of Yantai science & technology progress 2014



**Mar 23,** Wanhua won the fourth consecutive Grace AnHan Witt China's best employers

**Apr 10,** Wanhua Ningbo terminal won the award of Five-star terminal in Zhejiang province



**May 14,** Wanhua first won Ringier technology invention award in coating industry

**Sep 25,** Wanhua won China Innovation Demonstration Award in petrochemical industry



**Nov 22,** Wanhua won Device Management Excellent Enterprise award and China Equipment Internationalization Demonstration Firm award





## Responsible Care

