OUR QUALITY ENERGY FOR YOUR BLUE SEA & SKY



2014 SUSTAINABILITY REPORT



中国海洋石油总公司 CHINA NATIONAL OFFSHORE OIL CORP.

REPORT INTRODUCTION

This annual Sustainability Report of China National Offshore Oil Corporation, which is the tenth since 2005, is an accurate reflection of our fulfilment of economic, environmental and social responsibilities in 2014. Below is some pertinent information about the report:

Reporting Entity: China National Offshore Oil Corporation

Alternative Reference: China National Offshore Oil Corporation is herein also referred to as CNOOC, the Company, the Corporation, "we", "our" or "us".

Reporting Period: 1 January to 31 December 2014. In order to ensure the continuity and comparability of the information disclosed, the applicable period for certain information may be extended forward or backward accordingly.

Reporting Cycle: This report is an annual report.

Reporting Principles: To meet the needs of stakeholders and the general public, by disclosing key information on the Company in a true, objective, timely and comprehensive manner.

Data: All 2014 data disclosed herein are annual statistics. In case of discrepancies with the data in the annual report, the latter shall prevail. Unless otherwise specified, all amounts are expressed in Renminbi (RMB).

Information Sources: The Company's official documents, statistical reports and our subsidiaries' fulfilment of responsibilities. All information has been reviewed by our management, supervision department and the various subsidiaries.

Improvements: in order to reflect the fulfillment of CNOOC's responsibilities in a more objective, comprehensive and intensive manner, this Sustainability Report 2014 is presented with the theme of "Our Quality Energy for Your Blue Sea & Sky" and three issues of "Promoting Economic Growth, Enhancing Environmental Protection and Driving Social Progress" to demonstrate CNOOC's sustainable development. In addition to release the "CSR Report Overseas" separately, five major topics about the social responsibility are highlighted in the report: "Partners", "Deepwater Development ABC", "Enlightening a Blue Dream, Spreading Ocean Culture", "Persevering Charity, Spreading Love" and "Paying Attention to Humanistic Value in Indonesia". The compilation of the Report is based on the field investigation on the responsibility fulfillment of CNOOC affiliates and selection of real cases. Opinions and suggestions from the stakeholders are also incorporated to give an active response to their concerns.

References: this report is prepared in accordance with the "Ten Principles" of United Nations Global Compact; the *Guidelines to the State-owned Enterprises Directly under the Central Government on Fulfilling Corporate Social Responsibilities*, issued by the State-owned Assets Supervision and Administration Commission of the State Council of the People's Republic of China (SASAC); Sustainability Reporting Guidelines (Version GRI3.1) of the Global Reporting Initiative (GRI); the *Oil and Gas Industry Guidance on Voluntary Sustainability Reporting* (2010 2nd edition), jointly produced by the International Petroleum Industry Environmental Conservation Association (IPIECA) and the American Petroleum Institute (API); the *Corporate Social Responsibility Reporting Guidelines in China* (CASS-CSR3.0) by the Corporate Social Responsibility Research Centre of the Chinese Academy of Sciences; and the *ISO 26000 Guidance on Social Responsibility* (2010 edition) by the International Standards Organization (ISO).

Language: This report is published in both Chinese and English. In case of discrepancies, the Chinese version shall prevail.

Accessibility: This report is available in print and electronic formats. The digital version can be downloaded from the Company's website at www.cnooc.com.cn. To obtain a print version of the report, please email report@cnooc.com.cn.



THE LOGO OF CNOOC

The corporate logo of China National Offshore Oil Corporation (CNOOC) encompasses the basic design elements comprising the letters that make up the company's initials CNOOC, enclosed by the blue curves and ripples that represent China's seawaters. The design in red, formed by the capital letters CNOOC, depicts an offshore drilling rig silhouetted against the rising sun, symbolising prosperity in China's offshore oil industry.



ABOUT THE COVER

A technician in FPSO "Hai Yang Shi You 102" is taking a break during work

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CHAIRMAN'S LETTER

Dear all,

Let me, on behalf of the Board of Directors and all employees of CNOOC, express our heartfelt gratitude to all who have cared for and supported us all these years.

As a member of UN Global Compact and a leading promoter for China's "Energy Revolution", CNOOC is adhering to the Ten Principles of Global Compact. We take three elements -"Economy, Environment and Society" - as the most solid cornerstone for our development of oil & gas resources and value contribution. With our CSR management and Sustainability Report were elected in the "Global Compact China Best Practice 2014", we were also awarded the "Prize for Best Social Responsibility Report" at the Annual Meeting of Chinese Enterprise Sustainability Competitiveness 2014.

Our sustainability was further enhanced in 2014. The activity "Quality and Benefit Year" was carried out to improve the product and service quality and consolidate the sustainable foundation. The program "Research, Development and Application of Ultra-deepwater Semi-submersible Drilling Platforms" was honored with the grand prize of National Award for Science and Technology Progress.

A historical breakthrough was achieved in the oil and gas exploration together with substantial advancement in the "Deepwater Strategy", leading to a high level of reserve replace ratio. The oil and gas yields from China's waters were maintained at 50 million tons, achieving stable production for five years consecutively. The internationalized operation level of the Company is continuously upgrading.

CNOOC continues its efforts to strengthen the environmental protection. By implementing the *Environment Protection Law* and the refined full life circle management, the Company has

carried out studies and protection projects on the ecological diversity to make contribution for "Beautiful China".

The Company pays high attention on social progress and repays the society with developmental outcomes. The attention is also given to fulfilling the human-oriented value and the responsibility to employees, so that they can share the outcomes from corporate development in a sound growing environment. Based on the CNOOC Marine Environmental and Ecological Protection Public Welfare Foundation, activities for public charity, community co-building and voluntary service are in full swing to benefit both the society and people.

In fulfilling the CSR overseas, CNOOC is striving to establish a management mechanism fitting for the overseas business, increase the localization rate of overseas staff and integrate itself into the local community, with a view to co-developing the local economy and improving the environment together with stakeholders.

In the coming year, CNOOC will stick to deepening reform and innovation, keeping stable operation and realizing harmony among the economic growth, environmental protection and social advancement, and try its best to become a highly responsible and prestigious corporation that grows worldwide.

9 16 4

Chairman Wang Yilin 27 March 2015





PRESIDENT'S LETTER

Dear all,

The year of 2014 witnessed our persistent efforts in improving the quality and benefits, contributing quality energies, strengthening safety and environmental protection work, and performing the economic, environmental and social responsibilities. The Company's ability in sustainable development has been considerably raised.

Economic growth. Historical breakthrough was made in the oil and gas exploration. The first self-managed deepwater natural gas field was discovered in Lingshui 17-2, and a large gas field with over a hundred billion cubic meters also discovered in Gabon, Africa. Stable increase in the oil and gas yields was proven by 50 million tons of oil equivalent in China for five years consecutively and new records overseas. The ability to supply clean energies was intensified, with 14.11 million tons of imported LNG (liquefied natural gas), 17.7 billion kWh of gas power and more than 30,000 LNG fueling vehicles throughout the year. The technique of LNG vessel fueling was leading the green development of waterborne transport industry. In terms of safety, the Company did participate in the OSRL, the largest oil spill response organization owned by industry, to enhance its risk defending ability.

Environmental protection. The Company is accelerating the carbon assets management and increasing efficiency of water utilization and sewage treatment. The volume of water resource conservation was economized by 3.528 million tons, as well as the energy consumption per RMB 10,000 turnover is 0.2841 tons of standard coal equivalent, a year-on-year decrease of 1.8%. The Company also played an active role in protecting the marine animals like larga seal and Chinese white dolphin.

Social progress. The Company endeavored to respect employees' legitimate interests, improve their working conditions, concern their physical and mental health, expand the space for their career development. The Company was intended to carry out charitable projects, including the fixedpoint poverty alleviation and education aid, and co-build the community with residents. The Company also encouraged and supported employees to participate in the voluntary service.

Overseas CSR. The Company heightened the localization rate of its employees to 86%, providing more quality resources and employment opportunities in the places where its projects are located. Strong efforts were also made in the aspects of compliant operation, safety and environmental protection, technical innovation and cooperation, and involvement in local communities.

Dear friends, a boom year is coming again. CNOOC will carry on the work with more prominent operation to achieve balance among corporate development and economic growth, environmental protection and social progress, and will concentrate on producing energy for human beings in a safer, more environment-friendly and efficient way.

President Yang Hua 27 March 2015





STRATEGY OF SUSTAINABLE DEVELOPMENT

As one of the implementers for state energy and maritime strategies, CNOOC shoulders the crucial mission on ensuring national energy security, developing marine resources and protecting the marine ecology.

The social responsibility aims at the sustainable development and CSR management is a key way to realize corporate sustainability. Being a responsible energy company, CNOOC regards three elements "economy, environment and society" as the most solid cornerstone for energy development and value contribution.

Adhering to our corporate vision "Energy for All", insisting on our philosophy "people-orientation, responsibilities, winwin benefits, credibility and innovation" and our ethos in "safe and efficient operations, low carbon and green growth, putting people first, courage to innovate, charitable giving, openness and transparency", we systematically built a CSR model consisting "economic growth, environmental protection and social progress", in which the three dimensions integrate with and promote one another. The daily operation of the Company is integrated with the vision and strategy of sustainable development in different tiers such as organizational hierarchy, policy making and management process. Moreover, through benchmarking with the global business leaders and vertical comparisons on our Sustainable Development Index, we could evaluate, adjust and improve the effectiveness and results of our sustainability strategy accordingly and promptly.

As a participant of the United Nations Global Compact, CNOOC has always been adhering to the Ten Principles and is dedicated to excellent operations in a safer, more environment-friendly and more efficient manner. CNOOC is always striving for a balance among economic growth, environmental protection and social progress, and itself is committed to providing "Our Quality Energy for Your Blue Sea & Sky".



Being a responsible energy company, CNOOC regards three elements "economy, environment and society" as the most solid cornerstone for energy development and value contribution.

Our sustainability ethos permeates the corporate strategies and daily operations of the Company through the organizational structure, policies and procedures. Such seamless integration of social responsibility management and operational management brings about sustainable development with a balance struck among economic growth, environmental protection and social progress.



Management Process for CSR

Strategy & Planning			Execution & Supervision			k 1	Performance Evaluation				Communication & Feedback										
CSR Leading group	Corpora developi strategy Sustaina developi strategy Planning strategy Annual v report	tte ment able ment g for CSR work	Com annu mee CSF revie	npany's ual ting for } work w Disa	App approve	rove		· Re · Gu	aview uidance			Revie Com susta evalu repor	w of pany's inability ation t Disap	Appr	rove			k S F	esuance Sustainat Report Appr Rev	of the bility ove	
CSR Office	Draft ou Compa CSR ar work pl	ut the ny's nnual an	Confirr Compa CSR a work p	m the any's annual blan	Distri Com CSR work	oute the pany's _ annual plan	· Imple · Give sugg	CSF advo and investions	tigation	Launc evalua on the Comp sustai	h the tion any's nability	 Prepare Compar sustaina evaluatio Join into compet good pr cases o Compare 	the hy's bibility on report o the ition on actice f Global ct	Distri Com susta evalu repor	bute the pany's ainability lation t	Commu with stakeho	unication Iders	• Draw up the outline of the Sustainability Report • Preparation of the Report	Reportin Edit th Sustaii Repor	e hability	e
Departments/Affiliates of the Parent Company	· Refine · Define	tasks ←	Discuss,	Modify	Annual work p affiliate:	CSR an for	, II • ⊐ •	Brief Info	he plan	Colle evalu of su: devel	ct the ation data stainable opment	Repo	rting			Commu and feed Organiz activities commu with stakeho	I nication Jback Back S for Inication	Communication and feedback	Discuss,	Modify	

ACTION AND PERFORMANCE

Within the framework of the Action Plan 2014, around the theme of "Our Quality Energy for Your Blue Sea & Sky", we held several activities at home and abroad for communication with stakeholders in the three dimensions of "Promoting Economic Growth, Enhancing Environmental Protection and Driving Social Progress", such as the youth mini-public service program "Blue Power · Love Marine", campaign for energy conservation and low-carbon action, campus popular science video & photography exhibition "Blue Power · Ocean and Human", video competition "Quality and Benefit Year" and so on.

CNOOC Sustainability Report 2013 was awarded the "Prize for Best Social Responsibility Report" at the Annual Meeting of Chinese Enterprise Sustainability Competitiveness 2014, and the preparation process of Sustainability Report was elected in the "Global Compact China Best Practice 2014".



CNOOC Energy Conservation and Low Carbon Campaign



Students from the High School Affiliated to Renmin University of China are watching the video and picture exhibition about the offshore oil industry.



Volunteers from the youth mini-public services action "Blue Power · Love Marine" are testing the water quality at the seaside of Qingdao.



Canada enterprises are visiting the CNOOC's floating LNG receiving terminal in Tianjin.



CNOOC employees are receiving the CSR training.



CNOOC is organizing the activity for communication with stakeholders from Australia.



CNOOC employees are communicating with officials of the Ministry of Education of Congo (Brazzaville).



CNOOC employees are communicating with young scholars from Waseda University about the social responsibility issues.



CNOOC is communicating with representatives of stakeholders, including the suppliers, contractors, clients and partners.

KEY PERFORMANCE INDICATORS

	Item	2012	2013	2014	2014 National Data	Source of National Data
	Crude Oil Production (10,000 tons)	5,186	6,684	6,868	21,143	NBS
	Yield of Natural Gas (hundred million m ³)	164	196	219	1,302	NBS
	LNG Imports (10,000 tons)	1,079	1,301	1,411	2,016	CNPC ETRI
	Crude Oil Refining Capacity (10,000 tons)	3,008	2,961	2,845	50,277	CPCIF
	Crude Oil Trading Volume (10,000 tons)	3,079	3,968	4,951		
	Fuel Oil Production (10,000 tons)	750	730	672	2,527	Jinyindao Database
	Ethylene Production (10,000 tons)	102	103	103	1,704	CPCIF
Economic	Methanol Production (10,000 tons)	159	157	155	3,741	CPCIF
Growth	Fetilizer Production (10,000 tons)	346	370	380	6,934	CPCIF
	Natural Gas-Fired Power Capacity (100 million kWh)	153	152	177		
	Direct Contractor Casualties	2	5	2		
	Employee Casualties	0	2	1		
	Recordable Injury Events (case)	117	99	64		
	R&D Investments (100 million RMB)	26	28	33		
	Science and Technology Employees (persons)	7,436	7,848	8,643		
	Granted Patents (awards)	570	765	833		
	Energy Conservation and Emission Reduction Investments (100 million RMB)	3.5	2.8	4.3		
	Energy Consumption per RMB 10,000 Turnover (ton of standard coal equivalent)	0.307	0.292	0.284		
Environmental Protection	Energy Savings (10,000 tons of standard coal equivalent)	53.8	29.9	28.5		
	Sulfur Dioxide Gas Emission (tons)	12,968	16,060	12,376		
	Chemical Oxygen Demand (tons)	1,698	1,936	1,757		
	Nitric Oxide Emission (tons)	18,337	19,147	18,015		
	Ammonia Nitrogen Emission (tons)	443	491	448		
	Staff Strength (10,000 persons)	10.2	10.8	11.5		
	Rate of Conclusion of Employment Contracts	100%	100%	100%		
	Rate of Social Insurance Coverage	100%	100%	100%		
	Percentage of Employees participated in labor union	100%	100%	100%		
	Employees' Satisfaction (10 scores)	7.89	7.66	7.82		
Social Progress	Percentage of Female Employees	25%	25%	23%		
	Frequency of Occupational Disease	0	2	1		
	Rate of Physical Examination for Occupational Health	99.2%	99.9%	99.8%		
	Average Training Duration per Employee (hour)	82	95	87.5		
	Employee Turnover Rate	3%	3%	2.6%		
	Charitable Donation (10,000 RMB)	8,078	8,688	11,672		
	Taxation of Profit (100 million RMB)	1,348	1,290	1,143		
	Number of Foreign Employees	3,387	8,982	9,041		
	Localization Rate of Overseas Employees	71%	82%	86%		

Note: the natural gas yield does not include the coal bed methane yield at home

STAKEHOLDERS

Focus of Attention

- 1. Active implementation of national policies
- 2. Safeguarding the security of the nation's energy supply
- 3. Ensuring steady supply of energy to the market
- 4. Fulfilment of social responsibilities

Priority Actions

- 1. Maintain and add value to state-owned assets
- 2. Align with the national energy strategy, optimise the nation's energy structure and ensure energy supply
- Cooperate with the State in formulating relevant laws and regulations
 Pay close attention to developments in energy conservation and
- emission reduction, and actively cope with climate changes 5. Communicate effectively with the government of host countries

Focus of Attention

- 1. Protection of employees' rights and interests
- 2. Employees' career development
- 3. Employees' health and safety
- 4. Exemplification of employees' merits

Priority Actions

- 1. Improve the Company's remuneration system
- 2. Streamline the career path of employees
- 3. Conduct employee skills training
- 4. Provide benefits protection
- 5. Safeguard overseas employees' safety and legitimate interests

Our stakeholders include the government, employees, shareholders, customers, industry partners, suppliers, contractors, financial institutions, media, communities, the general public and non-governmental organizations (NGOs). Communication with stakeholders is of paramount importance to us. By engaging with them in an open and transparent manner, we listen to their voices and take them into account when formulating and implementing our strategies, policies and plans. With their trust and support, we are able to achieve long-term and sustainable development. We pay close attention to concerns of the stakeholders. Over the past year, CNOOC has paid 20 visits to clients and convened 6 meetings with the stakeholders, delivering our understanding on the social responsibility through communication and effective actions. We hope to strengthen the communication and cooperation with stakeholders continuously, for the purpose of jointly promoting the harmonious development of the economy, environment and society.

Focus of Attention

- 1. Corporate governance
- 2. Shareholders' dividend
- 3. Information disclosure
- 4. Investor relations
- 5. Stock price performance

Priority Actions

- 1. Disclose information in time
- 2. Pay periodic visits
- 3. Publish annual reports
 - Focus of Attention
 - 1. Provision of safe, environment-friendly and high-quality products and services
 - 2. Performance of contractual obligations
 - 3. Enhancement of consumer satisfaction

Priority Actions

- 1. Conduct product quality supervision and examination activities
- Enhance the brand value and awareness
 Solicit opinions and suggestions from
- customers regularly
- 4. Disclose more information
- 5. Formulate quality standards and system

Focus of Attention

- 1. Working together to comply with national laws,
- regulations and business ethics
- 2. Fair competition and harmonious development

Priority Actions

- 1. Participate regularly in exchange activities held by the industry associations
- 2. Assist in implementing the relevant policies and measures of the State

Industry Partners

Government

Employees Share-solution of the services satisfaction



PARTNERS

Listen to your voice Join hands for growth



CNOOC provides altruistic aids to Hoima district that is beyond our expectation. The charity clinics organized by CNOOC is unprecedented in the local. Their experienced doctors and abundant drugs have greatly eased the weakness of local medical infrastructure.

Inocent Ahaisibwe, Director of Bahuka hospital, Uganda



Kato William, Head of Nsonga Village, Uganda



Our company has been working with CNOOC in contracting of international project since 2008. Growing up together, the two companies have mutual confidence. CNOOC's advanced idea about the safety and strict requirement for quality drive us to reinforce our management on the same.

> Gao Jie, the General Manager of CMMEC



The construction of the drilling platform "Hai Yang Shi You 981" which is a significant breakthrough in the offshore oil industry ends the history that the operating water depth of Chinese offshore oil and gas exploration was restricted to 300m depth, greatly enhancing the exploration and development ability of deepwater oil and gas resources and the overall competitiveness of the Company.

> Wang Yupu, academician of the Chinese Academy of Engineering



I feel the enthusiasm and friendship in China. COSL-EXPRO cooperation is a win-win success and participating in the deepwater oil and gas exploration in the South China Sea is a valuable experience. This "Friendship Award" is my lifetime honor.

Peter Quiatkowski, CNOOC Foreign Expert, honored with the "Friendship Award" by the Chinese Government in 2014



CNOOC is a big company full of vigor and responsibility. The concise purchase contract documents and high communication efficiency in the key stages make the cooperation very smooth. They also attach great importance to the integrity management and full life cycle maintenance of the equipments, and pay regular inspection to ensure scope-change management.

> Liu Bianlan, Shenzhen Z&C Powerleading Co., Ltd.



The LNG receiving station of CNOOC does not discharge any sewage and noise. Fishes and shrimps are as abundant as before.

Su Tianding, an old fishman in Gaolan Island, Zhuhai City, Guangdong



CNOOC has strong learning ability. Its LNG technology, though being developed late, has been catching up with the pace of advanced international companies soon. CNOOC has always put the safety on its high agenda and there has never been an accident happened in the LNG gas stations. CNOOC has credibility and integrity. Any problems arising during the cooperation will be addressed in time.



1

CNOOC provides quality products and works efficiently with smooth flow process from quotation, taking delivery of oil and settling accounts. CNOOC has high social responsibility. Due to decline of the oil prices recently, the stocks of our company is very low. Every time when we ask for emergency help from CNOOC Guangdong Trade Co., Ltd., we can always get timely assistance.

> Huang Zhu, Shenzhen Nanshan Oil Co., Ltd.





PROMOTING ECONOMIC GROWTH

Ensuring Energy Supply Intensifying Safe Operation Improving Quality Management Emphasizing Sci-tech Innovation

ENSURING ENERGY SUPPLY

68.68

21.9 Annual Output of Natural Ga (billion cubic meters) Driven by the global economic growth and human's pursuit for high quality life, the energy demand will continue to rise. It is expected that the global energy consumption will increase by 37% in the next 20 years. In order to ensure the energy supply and realize the environmental sustainability, China is carrying out the energy transformation of "Substituting coal with gas", therefore the natural gas industry will step into a "fast lane".

CNOOC holds a view that expanding the use of clean energies will be helpful to the construction of a beautiful China and promote the social sustainability. With increasing the intensity of exploring the conventional oil and gas resources and continuously developing non-conventional natural gas, such as the coalbed methane and tight gas, attaching more importance to the development and utilization of clean energies like LNG, the Company strives for realizing the corporate value with more diversified, greener and more environment-friendly energy products and services. In 2014, the annual production reached 68.68 million tons of crude oil, 21.9 billion cubic meters of natural gas, 6.76 million tons of refined oil, 6.72 million tons of fuel oil, 9.02 million tons of asphalt and 1.03 million tons of ethylene, and generated 17.7 billion kWh of gas power and imported 14.11 million tons of LNG.

Oil & Gas Production

Seeking for medium and large-scale oil and gas fields under the regional planning, CNOOC makes solid progress in promoting the exploration of oil and gas and has harvested fruitful results. In 2014, CNOOC discovered the first self-managed deepwater natural gas field in China's offshore areas – Lingshui 17-2, with gas reserves over 100 billion cubic meters.

Adhering to the principle of developing both of the old and new oilfields, the Company carries out the integration of exploration and development of the new oilfields to put into production quickly and liberally; emphasizes the refine management of the old ones by ways of deploying adjustment wells and workover wells, injecting water and gas and acidification; develops low permeability reservoir with the MRC and those wells of low yield and efficiency with the organic and compound unblocking techniques, in order to enhance and stabilize the output. The Company conducts more efforts in developing the non-conventional oil and

gas fields. The horizontal wells of Panzhuang CBM and the vertical wells of Panhe CBM in Shanxi-Shaanxi gasfield mountain the national record of the highest yields per day of a single well. In 2014, the offshore production in China's coastal water realized 39.64 million tons of crude oil, 11.77 billion cubic meters of natural gas. The CBM output reached 0.64 billion cubic meters.



Oilfield Suizhong 36-1 in Bohai Sea



Case: Milestones for deepwater self-managed exploration

On August 18, 2014, a high-yield hydrocarbon flow was tested out by the deepwater drilling platform "Hai Yang Shi You 981" in the Lingshui 17-2-1 Well at the deepwater area of the northern South China Sea. The highest yield per day reached 1.6 million cubic meters. This was a milestone in the history of CNOOC deepwater self-managed exploration. The successful test on the well set three "firsts": the first large highyield gas field for CNOOC deepwater selfmanaged exploration; the complete success in the first deepwater test of "Hai Yang Shi You 981"; the first smooth utilization of the self-developed deepwater modular test devices. At this point, CNOOC has grasped the entire deepwater test technology.



Lingshui 17-2-1 Well test obtained a high-yield hydrocarbon flow

Case: Organic unblocking increases crude oil production by 103,000m³



FPSO of Bozhong 25-1 Oilfield

Oilfields contain the heavy oil, and their oil flow channels are likely to be blocked and damaged by such heavy hydrocarbon constituents as the wax, asphaltene and colloid. The conventional acidified unblocking method can not be employed due to the flowback fluids affecting the production system seriously. The Company applied the organic and compound unblocking techniques, keeping the production system free from the flowback fluids and reducing the damage on the reservoir. Thanks to the application of such techniques, the two oilfields realized an increase by 103,000m³ of crude oil per year.

Bozhong 25-1 and Qinhuangdao 32-6

Case: Innovation of drilling technology

The pressure gradient in the offshore oil & gas reservoirs is abnormally complicated. An oil & gas field may contain such reservoirs as having abnormally high pressure, original formation pressure and abnormally low pressure. The Western South China Sea Oilfield is able to accurately predict the open window of the safe drilling density under a reservoir with complicated pressure gradient. By utilizing the drilling technologies for such reservoirs with different pressure gradient, the oilfield hits a record that ensures safe and smooth work when the reservoir drilling pressure difference reaches up to 38MPa. This is a successful case in the development of the oil & gas fields with complicated pressure gradient at home and abroad, providing reference for developing similar oil & gas fields in the future.

Special Topic: Deepwater Development ABC





The water is so deep, how to decide which place should be exploited?



Second step:

The drilling platform sets out to the targeted area for drilling and sampling so as to analyze the oil-bearing structure in this area. Evaluations on the reservoir, environment and economy are used to ascertain whether it is feasible for exploiting the oil and gas here.



Fourth step:

Personnel start stationed in the platform, debug relevant production facilities and put them into normal operation.



First step:

Based on the available data, geophysical vessels are sent to conduct the geophysical exploration on the sea, similar to a CT for the earth. Relevant geological studies will confirm which place may hold the oil and gas resources in the vast deep sea.



Third step:

The design work of general development plan is conducted according to those data and materials that have been obtained, and the offshore platform is built according to the plan.

The water is so deep, how difficult is it to exploit the oil and gas?

Firstly: new approaches for exploration are required due to the water depth increase.



Exploring in the shallow sea is like looking for a needle in a haystack, while the deep sea is so called the "negative highland", proving the extreme difficulty in exploration.

Secondly: advanced technology for exploitation is required due to big pressure in the deepwater area.



Thirdly: the safety requirement is high due to the complex and changeable deepwater environment.



The internal wave current speed can reach 2m per second as if a scissor has a destructive power. An oil drilling platform in the deepwater area of Davis Strait, Canada, had to suspend the work because of the internal wave current.



Typhoons take place frequently, with the sustained wind speed at 12–13 level generally. "Local Typhoon", a destructive selfgenerating tropical cyclone, often happens in the South China Sea and is hardly to be forecasted.

Fourthly: long distance to the land leads to difficulty in storing and transporting the oil and gas.





Service Network

CNOOC makes constant efforts to expand and improve its service network, so that clients can enjoy its products and service in a more convenient way. The Company attaches great importance to exploring development and cooperation modes in terms of constructing the service network, fully mobilizes the internal and external resources, broadens the horizon of foreign cooperation and continuously accelerates the service terminal expansion.

Centered at the Yangtze River Delta, the Pearl River Delta and Bohai Rim area, the Company's service network spreads gradually along the Yangtze River waterway, Beijing-Guangzhou and Beijing-Kowloon railways to the central region. The development and construction of service stations, gas stations, oil depots, LNG receiving stations and natural gas pipelines is in progress. By the end of 2014, the Company has owned 570 petrol stations, 45 oil depots, 165 gas stations, 7 LNG receiving terminals and 4,163km natural gas pipelines.

Supply Network for Refined Oil Products

In 2014, the Company brought forth new ideas in marketing the refined oil products and explored several different development and cooperation modes. The first idea was to put different development modes into practice synchronously. Preliminary results have been achieved in the green island, skid-mounted and cooperative operation. The second was to integrate the oil and gas service stations into one and jointly improve the service level. Now 5 oil & gas integrated stations have been built and 4 under construction. The third was to cooperate with excellent state-owned enterprises and private capitals to explore more development modes. The fourth was to quicken the planning, development and construction of oil depots. Xigang Oil Depot in Yantai has been built, Binjiang Oil Depot in Taizhou is under steady construction, and the equity acquisition of Shunlong Oil Depot in Ningbo and Hecheng Oil Depot in Hunan have been completed.

Up to the end of 2014, 9.03 million tons of refined oil product was sold and our fleet of gas stations had an increase of 133, reaching a total number of 570.



Case: "Private Ordering" expands the aviation fuel logistics market

Refined oil products of Huizhou Refinery are waiting for shipment.

On the afternoon of January 24, 2014, CNOOC received a thank-you banner and letter with golden Chinese characters of "Guarantee on Aviation Fuel Service!" from representatives from CNAF Shenzhen Chengyuan Aviation Fuel Co., Ltd.

Although CNAF Shenzhen Chengyuan Aviation Fuel Co., Ltd. has possessed a storage capacity of 30,000 cubic meters and four 3,000-ton ships, the ships can aviate in the channel at high tide. Focusing on fine-tuning of transportation management, CNOOC has provided CNAF Shenzhen Chengyuan Aviation Fuel Co., Ltd. with customized services. Shipping timing is

backward calculated at Huizhou Refinery Port based on various tide changes, load time, ship speed, etc., ensuring that ships can directly dock at Chengyuan Oil Storage Warehouse in Shenzhen when they depart from ports with full load. In the event of an emergency demand at the airport, CNOOC will accurately predict the arrival time of ships, reserve sufficient fuel and port berth, and coordinate approval procedures with customs as well as the port administrative affairs, which effectively improves the turnover rate and guarantees the refuel work.



Case: "Quality Service Month" of CNOOC petrol stations

In 2014, for purpose of improving the service on site, beautifying the appearance of petrol stations and boosting sales, an activity of "Quality Service Month" was roundly implemented among CNOOC petrol stations and expected to promote business with good service, increase benefits and exalt customer satisfaction. During the peak time of business, the "flexible service" was provided to make sure every arrived vehicle being served in time. "Sometimes I am in a hurry and they fuel up my car very fast, so I like driving my car here for getting petrol", one customer said. CNOOC employees offer every customer with efficient services, warm smiles, standard and clear expressions, and offer help within their capacity, winning recognition from more and more customers.

Case: Joint operation of service stations

CNOOC and Jiangsu CNPC & TAFO Corporation launched the joint operation of service stations in 2014. Strictly following the requirements of unified visual identity, unified product delivery, unified quality, unified price, unified service standards and unified HSE management, 11 service stations were operated by laws in the form of joint cooperation, complementing each other's advantages to a win-win result.

Effective regulatory measures, such as the brand authorization, management output and resource output, have been accelerating the expansion of retail channels of petroleum products, made up the shortfall of retail terminals, and improved the service capability and influence of the company in the terminal market.

Case: Appropriately dealing with "complaints" brings reputation

One afternoon in November 2014, a man aged over 40 burst into the office of Lai Fudong, the manager of CNOOC Changxing Service Station in Jieyang City. It turned out before that the man, named Mr. Huang, required the station for an extra invoice of 100 Yuan after fueling his car and even could pay tips, but his request was refused by the filling operator and cashier successively for not complying with the invoice management regulations. So the man went straight to Lai Fudong for "making a breakthrough". "I have several big trucks that can fuel up here and bring you long-term business. If you don't help me, you will lose the business." Huang said. Though such customers were coveted by every service station, Lai refused him resolutely, "Issuing invoices in strict accordance with national regulations is a principle we must observe."

Out of Lai's expectation, Mr. Huang did not "go" away but made another request to become a long-term customer. It explained the matter that this was a test made by Mr. Huang, as he was choosing a right service station for long-term fuel supply to his transport team, but he feared that the petrol station may gang up with the driver to issue fraudulent invoices, so he had visited several petrol stations in such an undercover way. "You are the most reliable among four service stations I have paid visits. We will fuel up our trucks here later!"

Case: Ensuring oil supply in the farming season

The beginning of summer marks the arrival of farming season in the South. To ensure the fuel oil supply for farm machines, CNOOC service stations in Guangdong reserve a high inventory of 0# diesel in advance. For bringing convenience to farmers, the company provides a series of services, including the "green access" only for agricultural vehicles, free herb tea for farmers and etc.



A filling operator of Maozhu Service Station in Guangdong was fueling the farm tractor.

Case: Seven service stations and one oil depot won praise from customers

During the contest of "Customer-satisfied 100 Best Service Stations, 10 Best Oil Depots and 100 Best Service Staff of Guangdong in 2014", CNOOC Huacheng Service Station, Jili Service Station and other 5 service stations were honored with the title of "100 Best Service Station", Meihua Oil Depot in Shantou City with the title of "10 Best Oil Depots", and Zhou Shangyu and other 6 frontline employees with the title of "100 Best Service Staff".

The southern China is one of the key markets for petroleum products of CNOOC. With differentiated development, the Company is managing to improve its marketing capability and service quality by carrying out the activity of "Striving for Excellence", which is an opportunity to enhance the service management and bring forth new service manners.

Natural Gas Supply Network

The construction of the natural gas supply network is a continuous task for CNOOC to propel, which focuses on building the LNG receiving stations, natural gas pipelines and LNG (LCNG) gas stations mainly in the Yangtze River Delta, Pearl River Delta and Circum Bohai Sea Region. By the end of 2014, CNOOC service points have been established in 88 prefecture-level cities in 19 provinces, with 165 gas stations under production; 7 LNG receiving terminals under production, and 4,163km as-built natural gas pipelines in total.



LNG receiving terminal

Progress was made in the regional marketing work. In the south of China, the liquid sales volume of LNG realized a steady growth, expanding the LNG market share to 61%. The company worked with state-owned power companies, Guangdong YUEDEAN Group Co., Ltd., Shenzhen Nanshan Power Co., Ltd. and Shenzhen Energy Corporation to promote the projects of gas power and distributed energy. In the east of China, the company gave full play to the advantage of LNG peak-load deployment in emergency, and cooperated

165 The Number of Gas Stations

The Number of LNG Receiving Terminals

30,000

Accumulated number of serviced vehicles



with related parties to ensure the supply in different places. In the north of China, great efforts were put into the LNG market development, and a purchase and sales contract for boiler LNG combustion was signed with Tianjin Heat Supply Co., Ltd. In the center of China, the Company had taken over all contracts regarding the self-supporting gas areas previously controlled by China United Coalbed Methane Co., Ltd. and relied on the gas sources to fully develop the markets in Shanxi and Henan; the Ezhou project was taken as a support to develop the LNG market along the Yangtze River. In the southeast of China, attention was paid on the petrol users from industrial zones, plants, gas power stations, supply stations for vehicles and ships, so as to achieve steady access to the markets in Hunan and Jiangxi. In the northeast of China, the Company produced the offshore natural gas smoothly, ensured the gas supply for Yingkou City and met the user demands by means of outsourcing LNG. In the southwest of China, the acquisition of ENN Weizhou LNG plant was completed, with great efforts in developing the LNG market.

The market layout of gas supply was initially shaped. In 2014, the number of serviced vehicles increased by 13,000, racking up nearly 30,000 vehicles. In addition, the Company continued its work for replacing the diesel with gas for inland waterway vessels, construction of LNG stations and LNG exemplary ships in the Yangtze River, Pearl River and Beijing-Hangzhou Canal. By cooperating with China Institute of Water Resources and Hydropower Research (IWHR) in the work of revising standards on gas stations for ships, the Company facilitated the construction of 4 exemplary projects which have been incorporated in the List of the *First Pilot Demonstration Projects for Application of LNG in the Waterborne Transport Industry* issued by Ministry of Transport.

CNOOC actively responds to the national requirement for promoting the construction of circular and low-carbon transport system, reserves a batch of projects for upgrading ships with clean energy in the cities which are located beside the main domestic water areas, and strictly follows IMO's *Regulations for Prevention of Air Pollution from Ships* to drive the transformation and upgrading of the inland water transport industry. It is expected in the next few years that 100 bulk cargo ships of 1,000 tonnage will be rebuilt and newly built, and a number of diversified gas stations on the water will be constructed in the Yangtze River, Pearl River and Beijing-Hangzhou Canal.

Case: First inland LNG cargo ships on successful trial cruise in Huzhou

As more ships are sailing in waters of Huzhou, the city has been suffering more from air and water pollution caused by fueling diesel.

In 2014, two bulk cargo vessels fueled by LNG went on trial cruise successfully in Xijiang River of Huzhou, Zhejiang. It has been known that the natural gas can replace about 70% of diesel, as a result that the exhaust emission declines substantially, e.g. sulfur dioxide and soot by more than 70%, nitrogen oxide by 35%~40% and carbon dioxide by 10%~15%. Moreover, the engine oil consumption and engine noise can be reduced by over 20%, which will extend the service life of engine and cut the maintenance cost by over 30%.



Inland cargo ships fueled by LNG

Case: LNG application extended to the industry of metal cutting



The first shipment of LNG supplied by CNOOC YG Energy Co., Ltd. to the gas station of Youlian Ship Factory under China Merchants Holdings (International) Company Ltd. was successfully unloaded to the Mazhou Island base on December 26, 2014, indicating that the scope of application of YG Energy's LNG has been extended to the metal cutting market.

LNG gas cutting can work on a metal material with the maximum thickness of 14cm, without undemanding flashback and explosion whistle in the use process, providing high safety and specially applicable to the ship building industry.

Case: CNOOC is among the first national pilot for application of LNG in waterborne transportation

CNOOC YG Energy Co., Ltd. was selected by Ministry of Transport as one of the undertakers in the *First Pilot Demonstration Projects for Application of LNG in Waterborne Transportation Industry* in 2014. The "LNG Application Demonstration Zone in Shenzhen Port" initiated by Transport Commission of Shenzhen Municipality and undertaken by YG Energy and other 4 units, has been listed into three demonstration projects for application of LNG in waterborne transportation industry. In the coming two years, LNG will be actively applied in tugboats, vehicles, electric facilities and other machinery in the port, together with construction of 1 LNG fueling station for ships, 6 for vehicles, 1 for international ships and 1 LNG power plant, among other demonstration items.



LNG fueling station (Shenzhen) of CNOOC in Yantian Port, Shenzhen

Zhongshanyuan LNG fueling station (Shenzhen) of CNOOC

Asphalt, Lubricant and Fuel Service Network

The differentiated development path, as we are following, has gradually expanded our service network of three products – asphalt with 20 varieties under 4 categories, lubricant with 13 varieties under 5 categories, and fuel with 2 low-sulfur categories. Our asphalt output can reach 5.5 million tons per year, and we have established SBS processing bases in cities of Changde in Hunan, Yinchuan in Ningxia and Guanghan in Sichuan respectively, plus a number of sales offices in Hunan and Hubei, in a bid to provide products and services close to the markets.

In order to enhance the service capacity of the brand "CNOOC 36-1" in the northwest and southwest markets, CNOOC cooperated with Jiaqi Group to improve its strategic layout of asphalt business, striving for win-win benefits. The Company appointed Jiaqi in Ningxia as the general agent for "CNOOC 36-1" asphalt in Ningxia market, and set up a SBS processing base there; in Jiaqi Logistics Park of Guanghan, Sichuan, a "CNOOC 36-1" asphalt distribution base and a SBS production & processing base are under construction. By taking full advantages of Jiaqi Group's service channels and brand influence of "CNOOC 36-1", CNOOC has laid solid foundation for its asphalt products to better serve the northwest and southwest markets.



Case: "CNOOC 36-1" SBS paved again on the Chang'an Avenue



"CNOOC 36-1" SBS was paved on Chang'an Avenue once again.

"CNOOC 36-1" SBS was successfully supplied for the major renovation works of West Chang'an Avenue in July 2014. The product has excellent performance in the crack resistance at low temperature, anti-rutting at high temperature, water stability and anti-aging. This was the second time for "CNOOC 36-1" asphalt products to be used in the major renovation works of Chang'an Avenue.



Case: "CNOOC 36-1" SBS waterproof roll roofing was applied to the Turkey high-speed rail

Cooperation with Shandong Huiyuan Group in the Turkey high-speed rail project

CNOOC Oil & Gas Development & Utilization Corporation signed with Shandong Huiyuan Building Materials (Group) Co., Ltd. a MOU on application of "CNOOC 36-1" SBS waterproof roll rolling (exclusive for highspeed rail) for Turkey high-speed rail project in September 2014. With a contracted supply of 16,000 tons, this agreement which marked the company's another foreign key engineering project after its contract in reference to material supply for construction of stadiums used for FIFA in Brazil, is the first sale of "CNOOC 36-1" asphalt in European market.

Case: Considerate after-sales service improved the product's image

The building of brand image calls for both good product quality and considerate after-sales service. Working with the sellers and production staff, the laboratorians mitigate the errors and unify the experimental methods by means of comparative analysis and technical exchange with key labs and design institutions. In 2014, thanks to hard efforts in technical promotion, the Company won the supply contract for the Ziyang – Suining – Meishan Expressway Project in Sichuan. Excellent after-sales service on site does not only lay foundation for product marketing, but serves in building product image.

Supply Chain Management

CNOOC maintains a prudent manner and strict standards in terms of selecting cooperative partners, valuing much their concepts and actions in fulfilling the social responsibilities, in addition to their product quality, service level, commercial morality and business standing. Through contracting constraints, business training, process supervision and other ways, the management level of cooperative partners can be improved.

CNOOC constantly improves its supply chain management. By further optimizing the supplier/contractor management platforms, implementing the concentrated, categorized and hierarchical management, sharing the information about suppliers and contractors, and perfecting the performance assessment methods, a whole-process dynamic management on the supply chain has been realized.

We are committed to provide suppliers/contractors with "open, fair and transparent" opportunities for their participation in the bidding through open or electronic bidding. At the stage of access review and prequalification, the qualifications of the suppliers and contractors are rigorously checked. They are required to operate in accordance with laws, in good credit and seriously perform the social responsibilities; to establish a HSE management system, obtain authentication certificates and to have assessment on the implementation of the system; to sign a quality assurance agreement, conduct production supervision and quality spot check on the key products so as to prevent and address the quality risks. Besides, the Company actively discusses with them on the latest technological trends and management practice via work meeting, business talk and technical exchange etc., so as to lay a foundation for future win-win cooperation.

Supporting the national industry development is a down-to-earth action of CNOOC from beginning to end. By means of joint research and solution, CNOOC has successfully accomplished the localization of a number of such key equipment and products as Ni9 steel, marine crane and umbilical cable etc., and have mobilized the rapid development of relevant Chinese enterprises, enabling them to be qualified to compete with internationally-leading companies.

Case: Supplier management of CNOOC Caofeidian Operating Company

CNOOC Caofeidian Operating Company has organized its commercial, procurement and business departments to communicate with suppliers in various ways and channels. Meanwhile, a process chart is posted on the noticeable place of the warehouse, which shows its requirements on the logistics distribution, ensuring timely response from suppliers and laying sound foundation for bilateral future cooperation.

11 meetings were held by CNOOC Caofeidian Operating Company with the suppliers in 2014, producing 23 recognized memos and over 50 exchange records. With the enlarged scale of invitation for bidding, the management and control on the procurement process was really reinforced.



Case: COSL Ship Contractor Management paves the way towards professionalization

Engaging in the specialized management of ship subcontractors, COSL Ship Management Company has 16 ship companies with 27 ships and 716 crews. Aiming to build a professional contractor



COSL Ship Management testing third party's ship

management team, COSL Ship Management has accumulated rich management experience. In 2014, it completed the third party inspection on 9 ships, including the "#8 SK Tugboat" leased for the Bohai oilfield, providing accurate reference data for fully understanding the ship's operation conditions. In the same year, it received the grand prize of "Best Quality Service Provider" from the Bohai Petroleum Administration Bureau.



INTENSIFYING SAFE OPERATION

Security management is fundamental to the corporate sustainable development. With the core value idea of "safety first, environment utmost, people oriented and equipment intact" being taken root in the company, CNOOC regards safe operation as the lifeblood for corporate development. In order to grow into a substantially safe entity, CNOOC keeps improving the security system for production to reinforce the security management on personnel, production process and emergency response etc.

In 2014, the company experienced no major or more serious production accidents, an apparent decrease in the ordinary accidents and delivered a generally stable safe production performance.

Safety Training

Based on the concept of "people oriented and safety first", we actively create a safety cultural with a core of "Five To-do's and Five No-nos". Through various safety trainings the staffs internalized the awareness of keeping themselves and others safe. Safety management systems are constantly improved and protection measures are taken to secure their personal safety.

We improve the safety training scheme and upgrade the training platforms with unceasing efforts, so as to intensify the safety trainings for all staff. To this end, we establish a safety training course system that closely combines the post demand with safety training requirements; explore internal resources for training and cultivate an internal part-time trainer team as an important part of the teachers for staff trainings; develop an E-learning platform to provide essential safety training courses; upgrade the information platform for safety training and management that integrates safety personnel information, training files, course frameworks, supervision qualification and so on.

Our incessant work also lies on exploring innovative training modes and making the safety training more effective, efficient and well-targeted, so as to effectively control and prevent those risks that come with the involvement of more young operators and more contractors. We push forward the construction of "practical training classrooms" in a planned manner, thereby enhancing the safety attainment of staff and contractors rapidly. In 2014, 29 "practical training classrooms" were built and 14 under construction.



"Scaffold" practical training classroom of COOEC

Tips

By dividing the safety skill training into different modules, each of which presents simulated job site, equipment, instrument or environment to the trainees, with theories and programs explained by the aided audio-visual teaching, "practical training classroom" can briefly bring a perceptual knowledge to them and enable them to grasp the key points of safe operation. With good training effects and high efficiency, such classroom is especially applicable to the work units employing plenty of contractors.



Case: Practical safety classroom functions as the safety interactive platform for the staff

Young staff of Fujian LNG Receiving Terminal are receiving training and appraisal in practical safety training classroom.

As the CNOOC's first "practical training classroom" themed by LNG safety and a standardized training classroom covering 16 themes which is equipped with 160 training billboards and 900 sets of practical instrument and appliance, Fujian LNG Practical Safety Classroom has received around 2,000 visitors and trainees, that is becoming an interactive platform for safe production exchange among the staff, contractors and other related parties.

Case: I am your safety officer



safety "violations" at work? Lv Huizhen, Director of Seismic Source Group of COSL proposes the creative procedure of "I am your safety officer" – before the work, the staff compare with each other (the "mirror"), and correct any "unintentional fault" of their own.

How to prevent the unintentional

Noticing the loose life jacket of a colleague, Zhang Kunli immediately stops his own work and helps him with the correction.



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Work Safety

The offshore oil industry is of high risks, thus the Company always considers work safety most vital to the corporate development, attaches importance to the management of high risk items, creates a safer work environment for the staff and those of contractors together with improving the management of the operating safety.

With the "Major Hazard Source and Hazards Elimination System", the Company gets a full grasp on the corrections of all working units, to ensure a constant elimination of hazards. All 302 branches of CNOOC have been covered by this elimination system and the base units by the hazards report. The system has reported totally 70,229 hazards, among which 69,910 (99.5%) have been rectified as of the end of 2014.

The Company still conducts special inspection against the pipe hazards and crude oil tank hazards; thoroughly executes "6 bans and 6 punishments" in accordance with relevant state regulations; intensifies the elimination of oil spill risks and prevention of oil spill hazards; establishes the equipment integrity management system for refining and chemical companies; conducts special safety investigation and review upon the special operations on ships under repair or construction, selfowned railways and helicopters.

Case: "Equipment integrity management" ensures the safe operation of refinery plants

CNOOC Oil & Petrochemicals Co., Ltd. Huizhou Branch (Huizhou Refinery) has worked out complete methods for the improvement of equipment integrity management, covering system development, equipment dysfunction management, preventive maintenance, quality assurance and the management of repair & maintenance team. This enables the integrity management to be included in all equipment management procedures, and constantly improved via the PDCA (Plan-Do-Check-Action) cycle.

1. Any abnormality detected by electronic patrol will be reported via e-mails. The electronic patrol delivers an e-mail report to the relevant management staff every day, and the latter promptly handles the detected abnormalities.

2. When abnormality of the operating parameter of OM system equipment is detected, the alarm will sound and an e-mail be sent to inform the relevant personnel, so that the cause can be immediately rooted and abnormality eliminated.



Equipment repair & maintenance for Huizhou Refinery

3. All dysfunctions shall be corrected the very day; for any abnormality, "operating dysfunctional machine under supervision & reusing out-of-service machine for emergency" shall be prohibited.

4. Equipment emergency plan shall be prepared and improved, and emergency response provided to the occurrence of abnormality.

5. Management of weekly statistical data of equipment dysfunctions shall be further strengthened, to ensure the data to be correct, realtime and complete.

Through years of development and improvement, now the equipment integrity management of Huizhou Refinery has achieved remarkable results – as for the repair & maintenance in 2014, both the rates of vulnerable part replace and general equipment dysfunction significantly dropped, which not only guaranteed a safe and stable operation of the whole refinery, but also saved the procurement costs and daily maintenance costs.



Case: A safe production model for the LNG industry

Both Guangdong Dapeng LNG receiving terminal and Fujian LNG receiving terminal under CNOOC are granted by the State Administration of Work Safety the "Grade A for of security management of dangerous chemical production". This indicates that the Company has set itself as an example for the safe production in the Chinese LNG industry and the expanded application of LNG in China.



Guangdong Dapeng LNG receiving terminal

Case: Oil pipeline under "joint security management"

As the longest product pipeline that CNOOC is operating, the Huizohu-Dongguan Pipeline, 162.3km in total length, passes through 21 towns of Huizhou, Zengcheng and Dongguan. The dense local water network and large number of projects under construction pose great threats to the security maintenance of this pipeline. CNOOC works out a joint security management mode - CNOOC establishes cooperation and coordination with the relevant local governments along the pipeline; intensifies pipeline inspection, including monthly potential test & analysis, anti-corrosive coating leak detection, to identify and correct any potential hazards; intensifies the sign management and daily education (erect a marker post every 50m, large warning signs at big rivers, porcelain warning signs at small rivers and cement warning signs at densely populated road junctions), so as to strengthen the safety awareness of pipeline-side residents. Since put into production, the Huizohu-Dongguan Pipeline has never experienced any security accident or thievery.

Case: Joint security safeguarding of oil storage warehouse with locals

Meihua Oil Storage Warehouse of CNOOC in Shantou City is a key oil storage and transfer warehouse as well as a model warehouse for practicing the safety and environment policies. In the past 6 years, the Company has been expanding and upgrading the equipment and facilities of this warehouse, and conducting maintenance in a periodic manner. The Company entrusts local meteorological departments to conduct second lightening detection upon the warehouse, Shantou Prevention & Treatment Institute for Occupational Disease to test the noise and oil-gas concentration around the warehouse and professional testing agency to test the warehouse pipelines. The Company still donates money to the Fengming Village where the warehouse is located for road construction and poverty alleviation. The village organizes safety personnel to patrol around Meihua Oil Storage Warehouse every night, so that no thievery has ever occurred to the warehouse.

"Meihua Oil Storage Warehouse has become our safety model, their inspection teams are still expanding", comments the director of local work safety supervision department.

Case: Safe and efficient seismic exploration highly commended by the partner



Certificate for safety performance of Shell China and COSL

"Yinggehai 62/17" 3D seismic acquisition marks the 1st seismic exploration cooperation between Shell China and COSL since 2002. At the work area, east of South China Sea, the seismic exploration was severely affected by bad weather, fishery and complicated sea conditions. As operator COSL took all effective measures to escort the ships, maintain the equipment and well arrange the work, fulfilling a safe, quality and efficient exploration of 3 plots totalling 2,514 km².

During the exploration, the operation fleet while strictly abiding by the security requirements, prepared and enforced a "daily security scheme" under the joint security supervision on board and on site – inspection in the morning, meeting at noon and timely correction in the afternoon. Consequently, a "zero accident, zero hurt" was achieved for the "Yinggehai Project". Such quality, efficient achievement with zero safety accident, lays a good foundation for the seismic exploration cooperation between Shell China and COSL.

Case: GPS system guarantees a standardized routine inspection

As the natural gas pipeline routine inspection is characterized by long route, large area, difficult distribution and subsequent maintenance etc., the Company applies to the Guangdong Grids the world-leading GPS, GSM/GPRS, GIS and computer network communication & data processing etc., and develops the inspector tracking, management and monitoring system.

The system can not only enable an intelligent accounting and

assessment upon the work quality of pipeline routine inspectors, but a remote dynamic supervision on them, so as to ensure that they carry out the inspection upon the key points at specified time, in predetermined work shifts, along the designated routes and at relevant locations. The system can also sound the alarm when the inspectors drive too fast or pass the boundary, well guaranteeing the Guangdong Grids' safety.

Emergency Management

Based on hazard identification and risk analysis, CNOOC attaches importance to the infrastructure, constantly improves the management systems and intensifies emergency training and drill, so as to fully upgrade the risk resistance of systems and minimize the impacts of accidents.

Constantly improve the maritime emergency mobile command and communication system. We will perfectly develop this system which covers the Bohai Sea, East China Sea, east and west of South China Sea, so as to put the headquarters, branches and comprehensive emergency management platform under coordinated deployment and unified management, to provide hardware & software support for the realization of intensive, fine and flat management and sound communication for the maritime emergency disposal, and to improve the overall emergency response capability of CNOOC.

Build the global emergency resources management platform. We will make an overall arrangement and get a full grasp of the emergency material reserve and capability reserve, and improve the coordinated supply of emergency materials among different regions. The said management platform, allowing for general survey, online submission and real-time inquiry of emergency resources information, as well as dynamic tracking and building of emergency resources databases, can support the coordinated emergency rescue command and improve the emergency disposal capability.



Intensify coordinated response to emergency, satisfactorily conduct emergency drills. In 2014, CNOOC carried out 2 headquarters-level comprehensive emergency drills, 19,068 branch-level drills, including 2,067 comprehensive drills, 17,001 special drills, with totally 465,806 participants.

Vigorously expand the emergency rescue teams. For the upstream business, besides the existing oil spill rescue team, CNOOC is now pressing on the organization of full-time, part-time teams for ship, helicopter and offshore facilities rescue.

Build more oil spill emergency response bases and improve the oil spill emergency capability. After 5 eco-ships were put into use, the company is building 5 more ships for all operating sea areas in 2014, consequently there will be 4 eco-ships deployed to Bohai oilfields, realizing full coverage of the 2~6h emergency response circle; vigorously builds 8 shore-based professional oil spill emergency bases at all operating sea areas and improves their capability of disposing the offshore oil spill; strengthens the cooperation with local governments, China MSA, PetroChina, Sinopec to jointly built a coordinated emergency response platform against local oil spill; joins OSRL, the largest oil spill emergency organization owned by industry in the world, to realize the full coverage of CNOOC's oil spill emergency resources at international operating area; explores to set up an offshore oil spill emergency alliance of operators at the Chinese seas, which will see that their commitment of environmental protection is performed and oil spill risk at the Chinese seas is better prevented.

Further enhance the site emergency handling ability. The Company always attaches importance to the warning of disastrous weather and emergency response and handling. In 2014, totally 20 typhoons were formed at the northwest Pacific and South China Sea, 8 out of which badly affected the Company work. Under such circumstances, the Company sent 1,006 helicopters, 78 ships and 22,541 rescuers, who completed the rescue work safely.

Active foreign emergency rescue. CNOOC, as a member of CMSRC, reasonably allocates fine rescue resources against various hazards through regional cooperation. In 2014, it provided assistance to 20 hazard reliefs in foreign countries, rescuing 90 people and winning for multiple times the title of "model offshore rescuing unit".



Firefighting emergency drill for oilfields at the east of South China Sea



rescuers who completed the rescue work safely (persons)

Case: Maritime emergency mobile command and communication system

The maritime emergency mobile command and communication system is composed of 8 units, namely satellite communication, video monitoring, wireless mobile video, video conference, remote talk-back system, communication & navigation warning, weather information acquisition, platform for comprehensive management of emergency command ships. Emergency information sharing has been realized both between the headquarters and regional command centers and between the centers and emergency ships, meeting the requirement of efficient emergency command.

Case: Comprehensive oil spill drill conducted to the Bohai Oilfield

On November 4, 2014, CNOOC China Limited Tianjin held the comprehensive emergency drill 2014. Under the simulation of crude oil separator rupture on the deck of Qikou 18-1 Platform, which caused fire, injuries and wide oil spill, the Company sent 8 ships, 2 helicopters and over 200 personnel to the targeted area for rescue work, which successfully tested the emergency response ability of the Bohai Oilfield. What is worth mentioning, as the emergency command center and important docking window for the offshore platform, the two well-equipped emergency command ships of "Hai Yang Shi You 252" and "Hai Yang Shi You 253" first participated in the drill. They can reproduce the emergency command scene in a real-time fashion, and enable rapid response via instant videos and HF network telephone that realizes barrier-free communication, providing scientific decision basis for the remote emergency dispatch.



Grand offshore emergency drill of the Bohai Oilfield

Case: CNOOC joins the OSRL

On January 1, 2015, CNOOC became the shareholder and level-1 member of OSRL. Meanwhile, by purchasing the GDS (global dispersant stockpile) from OSRL, it was granted the right of mobilizing 5,000 tons (the quantity required to respond to the Mexican oil spill accident of BP) of OSRL's global dispersant reserve under the emergency. This move has further strengthened CNOOC's general response capability to the oil spill accident, providing safety guarantee to the foreign exploration and development, which reflects its serious performance of the commitments on health, safety and environmental protection.




IMPROVING QUALITY MANAGEMENT

Pursuing the quality goal of "being excellent, satisfying customers", CNOOC establishes itself as a new quality pacesetter in the offshore oil industry, makes undiminished commitment to the market and build a well-known CNOOC brand system with its high-quality products and services.

Quality Upgrading

CNOOC adheres to the quality policy of "people-oriented, safety first, honest and law-abiding, reinforcing foundation, innovation-driven and winning with quality", and establishes a comprehensive quality management system, thus continuously improving the quality management level of the Company. Complete certifications for products and services, strict supervision and management on the quality contribute much to the improvement of products and services quality and the establishment of good reputation in the international market.

Continue improving the quality management system. The revision of *Detailed Rules on the Quality Management of Internal Testing Institutes* has strengthened the testing capability of laboratories and improved the management level of quality testing institutes; the revision of *Detailed Administrative Rules for Quality Management Teams* has pushed forward the frontline quality management. Remarkable results were achieved in the company activity of quality management teams, with 89 team and individual honors at the national, industrial and ministerial levels, in which COOEC won the title of "Baite QC Team", CNOOC Energy Technology & Services Limited the titles of "Lean Production QC Team" and "Blue Lifeline QC Team", and CNOOC Gas & Power Group the title of "Seawater Chlorination System Design QC Team".

Carring out the quality management training. The quality management training is carried out in various forms and with rich contents, improving both the employees' awareness of quality management and the Company's quality management level, and meeting the requirements for quality management in the process of global expansion of the businesses.

Pushing the affiliates forward to implement performance excellence mode. Zhuhai LNG affiliated to CNOOC Gas & Power Group won the title of "Advanced Enterprise Implementing the Performance Excellence Mode in 2014", and the oilfield engineering branch companies affiliated to COOEC and CNOOC Energy Technology & Services Limited were honored with the "Quality Pacesetter" in the Chinese petroleum and chemical industries in 2014.

Case: Upgrading oil products with key technologies

CNOOC Huizhou Refinery, while building the clean refining plant, makes arrangement in advance, aims at the key technologies and integrates the energy saving, emission reduction and environmental protection into the transformation and upgrading, and therefore successfully produces the gasoline products that meet the Europe V Emission Standard. This has not only expanded the scope of refinable oil products of the refining plant, realized the upgrading of gasoline quality and seized the marketing initiative, but also provided the society with clean gasoline products and practiced the idea of developing into a resource-saving and environmentfriendly society. In 2014, CNOOC's petrol stations supplied the national V vehicle gasoline and national IV vehicle diesel on schedule according to the schedule of oil products quality upgrading in every province and city.



The full range FCC gasoline hydrodesulfurization unit of Huizhou Refinery was put into production.

Case: COSL is building an excellent quality management system

As the biggest offshore oil service provider in Asia, COSL has always been adhering to the quality management policy of "reputation utmost, equipment completeness and quality assurance". By establishing a sound quality management system, bringing forth new ideas for service and improving the product quality, COSL provides professional services and diversified products for customers and fulfills different demands from customers to the most extent, thus continuously improving the degree of customer satisfaction.

Special checks on quality management are organized and carried out, focusing on the quality system, equipment and facilities and customer satisfaction. And remedying and preventive measures are implemented to deal with those problems found in the checks.





Case: Shandong Haihua Group hurdled over the bromine dechlorination

The bromine plant of Shandong Haihua Group Co., Ltd. succeeded in its first commissioning of non-superior bromine dechlorination technical upgrading, and all bromines produced from this treatment technology reached the superior standard, with the ex-factory pass rate of 100% for superior products on December 2, 2014. Directing at the excessive chlorine contained in the bromine due to fluctuation of bromine content in the chlorine, steam pressure and primary acid, the plant established a special technical team. Through repeated demonstration and experiments, and by means of hot water circulatory heating, the primary acid was used to absorb the free chlorine after the bromine was boiling, reducing the content of free chlorine from 0.2%~0.5% to 0.01% and meeting the standard requirements for the chlorine content of superior bromine by not exceeding 0.05%. This technology originated in China has solved the technical hurdle in the same industry that the bromine can not be dechlorinated again.



Brand Building

We improve our soft power by building an internationally famous brand and establish our good reputation by providing excellent services for customers. We are endeavoring to solidify the construction of brand management system, refine the core value of "CNOOC" brand, revise the company image brochure and unify both the brand cultural connotation and image, so as to improve the world's recognition on "CNOOC" brand.

A number of premium brands for the company's products and services have been formed, including the "CNOOC 36-1" asphalt, "Haijiang" lube, "Awode" coating, "Yuandu" salty products, "Lishen" battery and "Fudao", "Tianye" and "Sakefu" fertilizers, which have been highly recognized by the society. COSL is also an internationally renowned brand for oilfield service.

"CNOOC 36-1" and "Haijiang"

CNOOC Oil & Gas Development & Utilization Corporation is operating two big brands – "CNOOC 36-1" asphalt and "Haijiang" rubber oil with increasing market recognition. Totally over 23 million tons of asphalt were supplied by the company to the market by 2014, covering 645 expressway projects, 23 airport projects, 5 water conservancy projects, etc. With the annual productivity of 5.5 million tons of asphalt and the daily processing of 6,100 tons of modified asphalt, CNOOC Oil & Gas Development & Utilization Corporation. held the first place in the "Award for Contribution in the Asphalt Industry of China" for consecutively 5 years, and won the honorable title of "Chinese Outstanding Asphalt Manufacturer 2014"; the "Haijiang" rubber oil passed successfully the REACH, BIU, SGS, TUV and TSCA certifications, and occupied the domestic market share for 15%, becoming one of the largest environment-friendly rubber oil brands in China.



Brands of CNOOC Oil & Gas Development & Utilization Corporation

"Awode"

"Awode" is a brand of coating produced by CNOOC Changzhou Paint & Coating Industry Research Institute and enjoys very high influence and reputation in the industry. Products under this brand include the color sheet coating, waterborne industrial coating, special coating, automobile coating, anticorrosive coating, architectural coating and coating resin, being widely applied in the fields from households to industry and even the aerospace.

"COSL"

As the largest comprehensive oilfield service provider in the coastal market of China, COSL has its service ran through the offshore oil and natural gas exploration, development and production, and is able to provide services of geophysical prospecting, well drilling, oilfield technology and ship. COSL's service area covers the waters of China and extends to Southeast Asia, Australia, the Middle East, America, North Africa and Northern Europe.

Case: The emerging Easy-PCL horizontal well tool won the North American market



Easy-PCL horizontal well tool is used for well logging in Canada.

In 2014, a Canadian company placed an order to COSL for a complete set of Easy-PCL horizontal well tool. Known as the drill pipe transmission tool, the Easy-PCL horizontal well tool is mainly used for solving the problems of wireline logging in the horizontal well. Enduring the local complicated environmental test, the Easy-PCL horizontal well tool completed the first well logging smoothly after working continuously for more than 20 hours, and the downhole instrument power supply, communication and logging data complied with the working requirements. Owing to the outstanding performance in its first appearance in Canada, the Easy-PCL horizontal well tool is received with deep trust and favor by local users, which lays a sound foundation for the future cooperation of both sides and helps COSL expand the new market of North America.

Case: ELIS entered the Thar Desert in India

Jaisalmer is located in the hinterland of Thar Desert in India, only 100km away from Pakistan. It is an arid region with limited rainfall, severe water shortage and harsh environment where the temperature in the rainy season can reach up to 50°C while the surface temperature up to 70°C. Sweltering in the heat wave will let a person feel stifled in an instant. But amid such a harsh environment, ELIS equipment still acquires outstanding achievements in a well with temperature up to 170°C. At the same time, the equipment technical support team puts down root here to provide after-sales service and training for customers.

The working mode of "a technical team provides on-field service after products are being sold" is just the last one of five-link services that COSL is carrying forward, namely the "research and development, engineering, industrialization, marketing and aftersales", which reflects COSL's tenet of "doing everything carefully and serving customers perfectly".



Personnel of the Chinese and Indian sides are discussing data before the ground system.



EMPHASIZING SCI-TECH INNOVATION

The technological innovation is a strategic engine for an enterprise's sustainable development. Serving as a global energy company, CNOOC is championing efforts to supply the clean energy and explore the new-type ocean energies continuously based on the oil and gas businesses and driven by the technological innovation, with a view to providing an inexhaustible driving force for sustainable development of the economy, society and environment.

Technical Innovation

With greater efforts in tackling the hard nuts in science and technology, the Company realizes substantial growth in the oil-gas reserves and yields by means of technical innovation. The establishment of the technical system for deepwater drilling and well cementation fluids as well as the technical system for the subsea products design, manufacturing, testing and installation that takes the PLET/PLEM as the entry point, has provided solid technical support for the deepwater development; the capability for research and development, production and service of the whole series of sand control tools for efficiently exploiting the heavy oilfield has been formed, and a heavy oilfield thermal recovery test base has been preliminarily built, providing vigorous support for the offshore oilfield thermal recovery test; the seawater-based polymer-free fluid system and the offshore fracturing fluid continuous mixing unit have been successfully developed, improving the economical efficiency during the development of low permeability oil and gas fields.

Technical achievement	s in	the oil a	& gas	exploration	and	development
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Type of Resources		Technical Achievements				
Conventional Oil & Gas		4 complete sets of offshore high-accuracy seismic exploration system package equipment, technology and series of products with proprietary intellectual property rights are developed; "MWD+ basical model of Drilllog" package equipment and technology are self developed; The offshore test of "rotary steering well drilling system and LWD logging system engineering and industrialization" project is concluded successfully with satisfactory geological data.				
Unconventional natural gas	Shale gas	A series of exploration and development systems for shale gas covering geological, reservoir, drilling and completion engineering are preliminarily developed and six set of distinctive technologies are grasped;				
	Coalbed methane	Technologies of optimized selection, gas-bearing prediction, development scheme compilation, control on rationed production, numerical modeling, productivity prediction and optimized stimulation for the exploration and exploitation of coalbed methane are grasped autonomously, and the technical assessment system for the integration of coalbed methane exploration and development is formed.				

Technical achievements in the offshore oil engineering

Name of Technology	Achievement Transformation
Breakthrough in large-scale block-based shipment for dynamic positioning ships	DP float-over installation of the 13,000-ton platform blocks and jacket
Shallow water float-over installation technology	A 10,500-ton offshore platform was successfully installed with the water depth of 8.9m in the waters of Liaodong Gulf, Bohai Sea
Key technologies for offshore oilfields, such as the construction of long-distance high-capacity flexible DC transmission, smart power grids and integrated intelligent monitoring system	The first umbilical cable of the subsea production system in China was developed
The first production line for oil hose with dynamic insulation in China	The first insulated oil hose in China was developed
A deepwater oil-gas development engineering system with independent intellectual property rights	Liwan 3-1 gas field demonstration works was completed and put into production
Intelligent monitoring system at riser slug	Successful application of FPSO in Wenchang Oilfield

Case: COSL's deepwater drilling fluid "breaks out of the cocoon"

The "COSL" deepwater drilling fluid system self developed by COSL has been applied successfully in 6 deepwater wells in the South China Sea, where the deepest part approaches 800m, proving its excellent performance. In addition to stable rheological property under wide range of temperature, striking effects on enhancing the drilling duration and well quality, this system also has its superior strength in its performance and working cost than those of internationally famous companies in the same district.

Case: COOEC improving the "extremely cold" welding capability

COOEC succeeds in the research and development of the welding process under an extremely cold environment, which is characterized with stable test result and satisfactory welding seam, and the low temperature toughness can be more than 3 times that of AWS (American Welding Society) international standard. Addressing the welding of steel in service at minus 50°C, this technological result will ensure the smooth construction of YAMAL Project in the arctic region of Russia, and acclimatize welding capacity of COOEC to the "extremely cold environment".

Case: CNOOC received the grand prize of the State Scientific and Technological Progress Awards for the project of "research, development and application of ultra-deepwater semi-submersible drilling platforms"

2014 was a year witnessing new historic highs in both the grade and number of awards for CNOOC. "Hai Yang Shi You 981", the first ultra-deepwater semi-submersible drilling platform, received the grand prize of the State Scientific and Technological Progress Awards. The project "Technological Innovation and Industrial Application of Peracid Heavy Crude Oil Processing in Full Amount and High Efficiency" received the grand prize of the State Scientific and Technological Progress Awards. Another project "Key Technology and Industrial Application of Waterproof Pipeline for Ocean Drilling Well" received the second prize of the State Technological Invention Award.

Ultra-deepwater semi-submersible drilling platform marks a milestone of CNOOC's deepwater facilities moving towards the world. Relying on the four technological innovations, we have filled the gap in developing the deepwater oil and gas in the South China Sea.

Four technological innovations:

It was the first time to establish the theoretical research methods and design systems for ultra-deepwater semi-submersible drilling platform under the exceptional disaster conditions. With the working water depth of 3,000m, drilling depth of 10,000m and variable load of 9,000t, the platform leads the world in respect of its comprehensive performance indexes.

It was the first time to establish the theoretical, analytical methods and experimental techniques for marine riser under the interaction between the ocean environment and drilling conditions, providing theoretical basis for the safe control of marine riser; an intrinsically safe blowout preventer control system was designed and applied that could prevent effectively the occurrence of accidents similar to BP's Well Blowout in the Gulf of Mexico.

It was the first time to break through core technologies for accuracy control based on the numerical analysis of finite element in China, and frame a system for assembling and supporting the ultra-deepwater semi-submersible drilling platform, which has reached the world advanced level.

It was the first time to realize the optimized design and intelligent control of the DP3 dynamic and anchor moored dual positioning system. This dual positioning system can save the consumption of crude oil by 20 tons/day and the emission of CO_2 63 tons/day, rendering considerable effects on the energy conservation, emission reduction and environment protection.



Case: A "float-over year" for offshore development

2014 was a "float-over year" for offshore oil engineering. The "float-over" is a leveraging technique by utilizing the tidal energy to install offshore platforms, and has been given full play in CNOOC. Throughout the year, 6 offshore float-over installations were completed, hitting a quantity record in recent years. Qinhuangdao 32-6 CEPI float-over module weighed 14,700 tons, a new record in the Bohai Bay; Huizhou 25-8 float-over block was installed by "Hai Yang Shi You 278", a semi-submersible self-propelled working ship, in which a new technology for DP horizontal loading and float-over was adopted for the first time, creating the maximum weight record of float-over installation in the world;

Kenli 3-2 float-over module was pioneering in the winter floatover installation; Lufeng 7-2 project module succeeded in the low-level float-over working with a weight of 12,000 tons that was extremely difficult in the world; Jinzhou 9-3 project 10,500t platform also accomplished its low-level float-over installation in the waters of the Bohai Bay at a depth of 9m.

We have thoroughly mastered different float-over installation technologies and realized the overall coverage of anchoring and DP float-over, providing valuable experience in developing the deepwater oil and gas resources.



"Float-over" installation of offshore platform is ongoing.

Case: Great achievements in LNG proprietary core technology

The success of commissioning on the ORV (open rack vaporizer) developed by the Technical R&D Center of CNOOC Gas & Power Group sends a signal that CNOOC has grasped the core equipment ORV and core technology for large LNG receiving terminals.

Two 30,000m³ floating LNG storage tanks with the proprietary core technologies in Tianjin were put into production smoothly. This was the first case in China that a project for 30,000m³ low-temperature concrete full-capacity LNG storage tank was designed, procured, constructed and commissioned independently. Breaking up this technical monopoly, CNOOC has become the unique owner of thoroughly mastering the design and construction of storage tanks at home.



Tianjin 30,000m³ floating LNG storage tanks were built and put into production.

Case: CNOOC's stereoscopic monitoring network for ocean environment

Considering the complicated and changeable sea and climatic conditions in the South China Sea, it is very vital to keep abreast of various ocean environmental elements, such as the wind, wave, current and internal wave, so that the engineering design and production of offshore oil & gas field can be carried out properly. CNOOC has accomplished a major task in the field of ocean technology under the state "863 Plan" – "A Study and Demonstration on Monitoring the Extreme Ocean Dynamic Environment in the South China Sea Oil & Gas Development Zone", and set up a stereoscopic ocean environment monitoring network, with the maximum height of observing the atmosphere to be 105m above the sea level and the maximum depth of monitoring the water to be 2,000m.



Operating personnel are installing the cabled subsurface buoys for real-time monitoring around the platform.





S/N	Name of Equipment	Functions	Features
1	Cabled real-time monitoring subsurface buoy	Used to observe the elements of sea water at different depth, such as the temperature, salinity, current velocity and direction	Solid structure, stable power supply, reliable transmission and high accuracy of the monitored data
2	Radar wave measuring system	Used to measure the sea wave and current	High accuracy of the observed data
3	Wave buoy	Used to observe the metocean elements	Observed elements are fully covered and data can be sent in real time
4	Seabed boundary current observing system	To obtain the sea current at different depth and elements in the boundary level near seafloor	Placed in the fault surface of the South China Sea at the depths between 200m~2,000m
5	Large deep water metocean buoy	Used to observe elements such as the wave height, wave direction, wave period and ocean current	Automatic observation in heights, strong resistance against adverse sea conditions and damage
6	Real-time monitoring subsurface buoy floating body	Used to observe elements at different depths, such as the sea water temperature, salinity, flow velocity and direction	Data can be sent in real time via the satellite

Pioneering Innovation

The theoretical innovation is a pioneering work. Attaching great importance to the fundamental study on the new-type strategic green ocean energies such as nature gas hydrate, ocean energy and offshore nuclear energy, CNOOC takes the initiative to build the technological R&D bases to support the research, development and incubation of the leading energy technologies. Several significant projects at the state level undertaken by the Company have acquired positive progress.

Nature Gas Hydrate

Nature gas hydrate is a future energy with giant resources. CNOOC has carried out much research work on nature gas hydrate and undertakes the state 863 Plan, 973 Program and national major scientific and technological projects. It is preliminarily planned to select a targeted zone in the South China Sea for pilot exploitation experiment of natural gas hydrate. CNOOC has developed suitable sampling devices and established a world-leading natural gas hydrate recovery simulation system, which has resulted in fruitful research results in risk controlling of natural gas hydrate exploitation and securing the deepwater flow assurance. At present, a simulation laboratory for natural gas hydrate exploitation technologies is under construction and expected to move forward the research to a new level.



The Nature gas hydrate is burning.

Ocean Energy

In order to develop the ocean energy and improve the energy structure, CNOOC has constructed the "Demonstration Project for 500KW Ocean Energy Independent Power System", realizing complementation among tidal current energy, wind power, and solar energy. Up to now, the demonstration project is the only one which can independently generate power by the ocean energy and still test at sea in China. Currently the system has run stably for over 518 days and generated a power capacity about 71,400 kWh in total, which is highly recognized by experts of State Oceanic Administration for "five successes" – "succeeding in the project management, organization mode, water conservancy design, power transmission and collection, and power supply by multiple-energy complementation".

CNOOC has also launched two projects which are "Feasibility Study on the First Stationed Project for the Ocean Energy Study Experiment Center" and the "Technical Investigation on the Development and Utilization of Ocean Energy Resources at Home and Abroad", and determined the "thirteenth fiveyear" plan for ocean energy development. In the future, it will build a world-leading ocean energy study experiment center in the Future Science and Technology Park to accelerate the comprehensive utilization of ocean energy.



Application of Offshore Nuclear Energy

The offshore nuclear energy is a clean energy free from emission of pollutants, including the carbon dioxide, sulfur dioxide and nitric oxide, which contributes to avoiding pollution on the atmosphere and sea water caused by burned heavy oil and inferior fuels, and solving the problems arising out of power and heat supply for offshore work platforms.

In 2014, CNOOC Research Institute founded the "Technology R&D Center for State Energy Ocean Nuclear Power Platform" which is supported by the National Energy Bureau, and 7 patents from the "Pre-feasibility Study on Nuclear Energy Application Technologies for Oil & Gas Development within Bohai Sea" were applied. According to the "thirteenth five-year" plan for offshore nuclear energy development and utilization, CNOOC will bid to consider the technical feasibility and economy of offshore power supply and heavy oil thermal recovery by small-scale sea-based civil nuclear reactors, and carry out the construction of demonstration projects in a proper time.



Sketch Map for Offshore Nuclear Power Application

Case: CNOOC Future Science and Technology Park

CNOOC Future Science and Technology Park serves as the largest scientific & technological research and development base of the Company and the total moist area of the laboratory is the largest in Asia. The study scope covers the research and development of deepwater technologies, coal-based clean energy, power battery and other new energies, LNG experiment, heavy oil processing, high-end asphalt, lubricating oil, petrifaction – salinization integration, carbon dioxide plastics and polyformaldehyde production and modified technologies.



Planning Map for CNOOC Future Science and Technology Park





ENHANCING ENVIRONMENTAL PROTECTION

Environmental Management Tackling Climate Change Water Resource Management Energy Conservation and Emission Reduction Biodiversity Conservation

ENVIRONMENTAL MANAGEMENT



Overall Management Process of CNOOC Environmental Protection



With the principle of developing a green, low carbon, clean and renewable economy in mind, CNOOC steps up its efforts in transforming itself into a resource-conserving and environment-friendly company. CNOOC has effectively reduced environmental risks and realized sustainable development between the Company and environment, through continuously improving environmental management system, continuing to enhance overall environmental management process in construction projects, and integrating environmental protection into daily production and operation.

In accordance with the management principles "control after the event is inferior to control in the event, control in the event is inferior to control before the event, while control before the event is inferior to control during overall process", and based on CNOOC's environmental management information system, CNOOC carries out overall-process environmental management, which focuses on environmental impact assessment management, pollutant up-to-standard emission and total amount control management, and overall emission management. As an overall pollutant emission data recording, reporting, counting, monitoring and alarming system, the system covers CNOOC's subsidiaries at different levels and has comprehensively realized fine environmental protection management.

CNOOC pays attention to environmental management in scientific research and construction projects, further specifies administrative rules on environmental impact assessment and implementation rules for environmental monitoring, and has formulated rules attachments.

As for newly constructed projects, CNOOC attaches great importance to source control, strengthens pre-assessment of environmental risks, environmental impact assessment and nature environmental protection in design stage, so as to prevent environmental risks in project's pre-phase. Management & control measures are adopted during construction phase, and meanwhile "Three Wastes" technology audit & management, environmental impact assessment change management as well as environmental protection facilities calibration monitoring are intensified, in order to provide guarantee for the projects to operate effectively and compliantly. In 2014, CNOOC revised *Administrative Rules on Environmental Impact Assessment* and other rules which provided system foundation for specifying environmental management requirements in different stages of construction projects.

In order to enhance environment protection management during operation phase, CNOOC has revised *Detailed Rules and Regulations for Preparation and Report of Offshore Oil and Gas Pollution Prevention Form, Detailed Rules and Regulations for Environmental Event Report*, and standardized pollutant emission management as well emergency response to environmental pollution events. Subject to management regulation requirements, CNOOC has continuously implemented special environmental inspection in 6 of its subsidiaries all through the year; as for environmental protection facilities renovation projects, CNOOC has carried out environmental monitor on 6 subsidiaries, continuously rectified on the risks found, and significantly enhanced environmental protection management of the Company.

In order to coordinate with the Environment Protection Law that is going to be implemented, as well as the supporting administrative rules, CNOOC starts environmental protection management from compliance operation, and continues to expand environmental management contents and scopes. In 2014, CNOOC boosted comprehensive treatment of volatile organic compound and BT (Building - Transfer) and BOT (Building - Operation - Transfer) contract management mode construction in environmental protection facilities projects, improved COD testing methods of marine sewage, and issued various regulations.

TACKLING CLIMATE CHANGE

As global warming increases, it has become one of global core issues necessary to be solved by human to reduce greenhouse gas emission and protect environment. As a responsible international energy corporation, CNOOC is actively working out effective methods for tackling climate change and reducing greenhouse gas emission. In 2014, CNOOC strived for carbon asset management and project development, explored greenhouse gas emission conservation and utilization technologies; at the same time, CNOOC pushed forward researches in carbon dioxide emission monitoring technologies, fixing combustion sources of greenhouse gas, and developing emission online monitoring system; furthermore, CNOOC formulated Monitoring Specifications for Carbon Dioxide Emission in Gas-fired Power Plants with enterprise standards.

Carbon Asset Management and Project Development

CNOOC takes active part in domestic carbon trading market, carries out carbon asset management research and development, gradually sets up and cultivates a carbon asset development and management team with high degree, quality and of high profession, so as to upgrade carbon asset management and service capacity of low carbon policy analysis, carbon asset methodology and project development, carbon emission management, carbon quota compliance management, carbon asset information construction.

CNOOC takes the lead in CCER (Chinese Certified Emission Reduction) project development, and has already completed several projects. Among all projects, Fujian LNG cold energy air separation project, the first cold energy air separation CCER project recorded in NDRC (National Development and Reform Commission), realizes an annual emission reduction volume of 65,000 tons, which not only complies with national energy conservation and low carbon policies, but also creates additional carbon emission reduction benefits for project implementing units, and plays a good demonstration role for the follow-up development of CCER project.

Greenhouse Gas Emission Reduction and Utilization Technologies

Development direction of greenhouse gas (like CO₂) emission reduction and utilization technologies: Firstly, to reduce product energy consumption, improve energy utilization and convert energy utilization method through new technologies during production process; secondly, to better use exhaust gases, develop technologies of CO₂ capture, separation, geological storage and large-scale utilization, so as to achieve emission reduction finally.

CNOOC has made great progress in offshore oilfield associated gas utilization research. Offshore oilfield associated gas contains a great deal of natural gas, and directly releasing it will not only result in a waste of precious resources, but also emit a lot of greenhouse gas. CNOOC establishes comprehensive scientific research subject to study offshore oilfield associated gas utilization, carries out researches in respect of offshore oilfield associated gas utilization & facilities, utilization engineering mode, transport, loading & unloading schemes, and conducts investment estimation and economic evaluation on target oilfields. In 2014, CNOOC worked out small associated gas utilization device which meets offshore environmental conditions and requirements, developed new utilization mode for offshore oilfield associated gas of "movable platform + small skid-mounted LNG/CNG device + ro-ro ship", providing new development mode and technical device for offshore marginal gas field development. As for those offshore oilfields where conditions are not met to recycle and utilize associated gas during preliminary development stage, CNOOC has successfully practiced associated gas re-injection in Bohai Oilfield and the South China Sea Oilfield based on a large amount of research, which has protected natural gas resources & atmospheric environment, increased recovery efficiency, and provided an example for greenhouse gas emission reduction during preliminary development stage of similar oilfields.





Technical Roadmap of CCUS

CNOOC consistently lays emphasis on studying CO_2 capture, storage and utilization technologies (CCUS), and has made positive progress in CO_2 capture, separation, geological storage and large-scale utilization. Regarding CO_2 capture and separation technologies, CNOOC has implemented preliminary study on high concentration CO_2 separation technologies associated during production in oilfields, with the focus on exploring and developing energy-conserving and operationeasy skid-mounted membrane separation system and technology. As for CO_2 geological storage technologies, CNOOC has launched exploratory research on increase recovery efficiency by CO_2 flooding and intensifying CO_2 flooding in development of coalbed methane. Moreover, CNOOC has carried out resource and technological research on fields of CO_2 geological storage in depleted oilfields and saline aquifer, and conducted its feasibility research, evaluated economic efficiency and analyzed existing risks. In respect of CO_2 utilization, exploratory study has been conducted in new chemical technology of "hydrogen production byphotocatalysis and liquid fuel or chemicals production by CO_2 coupling", and further research has been carried out in technologies regarding CO_2 application in unconventional oil & gas development, and co-gasification of biomass with coal.

Case: CO_2 trash to treasure



Lishui 36-1 Project is under construction.

 CO_2 content of landing gas in Lishui 36-1 Gasfield which has been newly put into production reaches about 34%. CNOOC has specially applied CO_2 separation treatment equipment. The CO_2 of landing gas will be absorbed by MEDA (N-methyldiethanolamine) solution, evaporated into gaseous after being heated, and finally processed into pure liquid product through procedures of desulfurization, de-alkylation, refrigeration and purification. In Lishui Niyu Island Terminal Construction Project, CO_2 separated from de-carbonization system will be processed into food-grade liquid products, making trash to treasure and increasing the project profits. CO_2 content of natural gas after treatment will be controlled within 3%, which will completely meet the utilization requirements of downstream customers. With annual output of 250,000 tons, the separated pure CO_2 will be widely used in fields of food and welding industry.

Case: Offshore associated CO₂ burying, storage and EOR research

CNOOC has launched research in respect of offshore associated CO_2 burying, storage and enhanced flooding. There lie abundant CO_2 resources in natural gas fields of the South China Sea. It is preliminarily estimated that total resource of CO_2 in Yingge Sea Basin only can amount to 1 trillion cubic meters. If the associated CO_2 directly blows off during exploration, it will have a serious impact on atmospheric environment. While injecting CO_2 into oilfield to improve recovery efficiency can not only reduce greenhouse effect, but also increase economic benefits. Research has been conducted in the comprehensive utilization of the associated CO_2 resources in gas fields of the South China Sea, and attention has been paid to study of injecting CO_2 nearby oil reservoir to improve recovery efficiency, and storage in nearly depleted gas reservoir. Application research has been positively implemented regarding associated CO_2 in Bohai Sea and Brazil, mainly including experiment design and research of alternative injection by rich associated CO_2 and water, as well as digital data simulation study of rich associated CO_2 reinjecting into oil reservoir.



WATER RESOURCE MANAGEMENT

With great importance attached to the policy of "resource development and energy conservation", and based on the core of improving the utilization rate of water resource, CNOOC places emphasis on technological progress and innovations, increases efforts on technology reforms, intensifies supervision management, strengthens wastewater comprehensive treatment and recycle, and enhances water resource management in the round.

3.528 Water Resource Savings (million tons)

CNOOC has incorporated water resource management into its management system for energy conservation and emission reduction, formulated and implemented *Administrative Rules on Water Conservation*, so as to guarantee the sustainable, standard and effective implementation of water conservation. CNOOC promoted the implementation of water conservation in different levels by specifying water conservation tasks and targets in all its subsidiaries in 2014. CNOOC enhanced water resource crisis awareness and water-saving idea among its employees through proactively carrying out promotion activities regarding water conservation. CNOOC continued to reduce fresh water consumption volume per unit product by optimizing production process. CNOOC successfully saved precious fresh water resource through measures of reclaimed water recycle and sea water desalination. In this way, CNOOC managed to save water equivalent to 3.528 million tons in the whole year.

Water Management on the Offshore Platform

Fresh water resource is very precious on the offshore platform for it is supplied through ships. CNOOC pays so much attention to reasonable utilization of water resource, continues to improve water production and utilization process, and launches projects in respect of comprehensive utilization of production water as well as sea water desalination and recycle of fresh water. Through technological measures, water has been saved to the greatest extent, so as to reduce water supply by ships.

Case: Progress made in sea water desalination in FPSO of Qinhuangdao 32-6 Oilfield

"Bohai Century" FPSO in Qinhuangdao 32-6 Oilfield is consisted of 5 diesel generating sets, and the jacket water of main engine is able to supply at least 3,850 KW of effective heat, which has been used in sea water desalination. Without any increase of energy consumption, "Bohai Century" is able to produce 6,000 cubic meters of fresh water annually, equivalent to half of the average annual water consumption of FPSO, which has reduced fresh water supply by ships, and effectively decreased water consumption pressure of FPSO and oil consumption of ships.



Float Production Storage and Offloading (FPSO) under the Blue Sky

Case: Recycling of laboratory water in Bozhong 3-2 Oilfield

For every transmission from Bozhong 3-2 Platform, 5~6 crude oil samples need to be tested, three distillation tests are necessary to test water content in crude oil, and it will consume about 30 liters of fresh water for each test. Through renovation in the existing laboratory process and utilization of circulating cooling water

device in Bozhong 3-2 Platform, it only needs to fill 6 liters of fresh water in the water tank of the device, and the water will be circulating in the cooler after it is cooled. In this way, cooling water can be recycled and re-used, so as to reduce the demand for laboratory water.

Refining and Petrochemistry Water Management

A large amount of fresh water will be consumed in all procedures of production of refining and petrochemistry. In order to make efficient use of water resource, CNOOC focuses on water management and enhances efforts in technological breakthroughs regarding production water recycle and wastewater reuse, which has reduced the daily consumption of fresh water.



Wastewater Deep Treatment - Reverse Osmosis (RO) Device

CNOOC Ningbo Daxie Petrochemical Ltd. has developed and applied reverse osmosis wastewater treatment technology of "catalytic ozonation and coupled electro-catalytic oxidation", so that average reuse rate of wastewater has reached over 85%. Daily balance monitoring system has been established for fresh water to apply daily supervision on the main water consumption points in the whole factory, conduct periodical evaluation on the reasonability of water consumption in key units so as to regulate management of firefighting water supplement and construction water, and effectively avoid the occurrence of abnormal water consumption. In 2014, fresh water consumption volume per ton crude oil in Daxie Petrochemical amounted to 0.092 tons, decreasing by 20.7% from that of the previous year, which means that water conservation is equivalent to 108,000 tons a year. With the great contribution to water conservation, Daxie Petrochemical has been listed as one of 2015 Water Conserving Enterprises in Ningbo.

Case: Renewable economy development through multitasking of sea water

In CNOOC Shandong Haihua Group Co., Ltd, sea water has been used in multitasks during production process, so that renewable economy mode has been realized. Firstly, sea water will be used to raise marine products like shellfish, fish and shrimp; when concentration of sea water increases to primary brine, artemias will be raised; intermediate brine and underground brine extracted will be sent to the cooling system in the soda plant or thermal power plant first; the brine, after absorbing waste heat in such plant, will be sent to bromide factory to increase the recovery ratio of bromide; the brine, after going through procedures in bromide factory, will be sent to saltworks for making baysalt; the old brine thereafter will be sent to potassium sulfate plant to serve as the raw materials to produce potassium sulfate and magnesium chloride. The efficient ingredients of sea water in the system will be used to the greatest extend through these six procedures.



Baysalt Production through Brine Evaporation in Saltworks



ENERGY CONSERVATION AND EMISSION REDUCTION

CNOOC has consistently regarded energy conservation and emission reduction as essential methods to transfer development way and to improve core competitiveness, and realized the green and low carbon management in the whole process of productions, circulations and consumptions and exerts itself to become a "resource-conserving and environment-friendly" corporation.

CNOOC advocates a green and low carbon way for production, lifestyle and consumption patterns all along. In the process of selecting suppliers and contractors, CNOOC attaches great importance to review their action performance in terms of energy conservation and emission reduction, and actively guides them to the green and low carbon development road.

CNOOC has continued to devote greater efforts to saving energy and to reducing emission, and relied on technological reforms to realize energy conservation and emissions reduction targets. In 2014, CNOOC implemented 121 projects on energy saving and emission reduction, with the total investment of RMB 430 million Yuan in the whole year. Altogether 285,000 tons of standard coal equivalent was saved in the whole year, and the energy consumption per RMB 10,000 Yuan turnover is 0.2841 tons of standard coal equivalent (based on the comparable price of 2010), a drop of 2.6% compared to the previous year.

430

Total investment on energy saving and emission reduction in the whole year (million Yuan)

285,000

Annual energy conservation volume (tons of standard coal equivalent)

Energy Consumption per RMB 10,000 Yuan Turnover

U.ZOH I (tons of standard coal equivalent)											
	0.03	0.06	0.09	0.12	0.15	0.18	0.21	0.24	0.27	0.30	0.33
2014											0.2841
2013											0.2916
2012		:						1	;	:	0.3074

Energy Conservation

10014

As an energy production and supply corporation, CNOOC endeavors to supply sufficient clean energy for social development, and is committed to implementing energy conservation across the overall process of production and operation in the Company. In 2014, with the principle of developing a green, low carbon, clean and renewable economy in mind, CNOOC regarded energy conservation and emissions reduction as emphasis point to improve its development quality, benefits and perform its social responsibilities. Meanwhile, CNOOC strictly complied with applicable national laws, regulations and policies in respect of energy conservation and emissions reduction. CNOOC had effectively conserved energy and reduced emissions through strengthening the assessment of target responsibilities, enhancing supervision management, stepping up efforts in implementing technology reforms, and other measures on an on-going basis.

With further efforts endeavored in foundation management on energy conservation, CNOOC has comprehensively improved its system, information, standard and delicacy management on energy conservation. In 2014, CNOOC organized to formulate 3 corporate energy conservation standards, formulated *CNOOC Advanced Applicable Technology Collections of Energy&Water Conservation*, which provided a communication and study platform of energy & water conservation for the Company. Moreover, CNOOC carried out evaluation activities of "2010~2013 Annual Advanced Unit for Energy Conservation, Excellent Employee, Outstanding Energy Conservation Project, Excellent Volunteer Supervisor for Energy Conservation".

CNOOC pays special attention to establishing corporate energy conservation culture. By widely carrying out various promotion activities themed with energy conservation and low carbon, as well as promotion and education activities like energy conservation labor competition and technological communication & training in respect of energy conservation, the energy conserving, environment-friendly and low carbon production mode, consumption manner and living habit get hardwired into employees, and employees' awareness and activeness to take part in energy conservation is enhanced in this way.

CNOOC continues to proactively develop energy conservation technologies by itself and apply independent investment in energy saving technical transformation, vigorously put forward Energy Performance Contracting (EPC), and actively introduce market mechanism of energy saving, so as to solve the problem of insufficient energy conservation technologies and funds in its subsidiaries. CNOOC has applied strict evaluation and review on energy conservation for all of new and reconstruction projects, so as to guarantee that all the new projects can reach the advanced level.

In the activity of 2013 annual leading energy efficiency enterprises for key energy consumption products in oil and chemical industry organized by China Petroleum and Chemical Industry Federation (CPCIF), CNOOC Kingboard Chemical Limited had been honored the first prize of the leading energy efficiency enterprises engaged in producing methyl alcohol with natural gas as raw materials, CNOOC China BlueChemical Ltd. had been awarded the second prize of the leading energy efficiency enterprises for ammonia synthesis with natural gas as raw materials, and CNOOC Oil & Petrochemicals Co., Ltd. Huizhou Branch (Huizhou Refinery in short) had won the second prize of the leading energy efficiency enterprises of crude oil processing.

Case: Gas network of offshore production units for recycling of associated gas

CNOOC has established a gas network by combining Weizhou 11-1 Oilfield, Weizhou 11-4D Oilfield, Weizhou 12-1 Oilfield and Weizhou Terminal Treatment Plant, which has realized the complementary utilization of natural gas, and reduced the release of enriched associated natural gas in oilfields. With a total investment of RMB 20.58 million Yuan, the project was completed and put into service in August 2014. Previously, it had to release 55,000 cubic meters of natural gas for every day in Weizhou 11-1 Oilfield, while it can be transferred through the newly added marine pipelines to Weizhou Terminal for use. As a result, annual sales volume of natural gas can be increased by 19.8 million cubic meters, and carbon dioxide emission can be reduced by 37,000 tons in one year.



Case: Fuel oil consumption reduced for ships through new measures

Based on the high energy consumption situation that ships cannot drop anchor but cruise against rough sea in deep waters, COSL has taken the measure of "mooring buoy", and added such offshore fixed buoy, which has reduced a great deal of unnecessary energy consumption of ships. In the eastern and western waters of the South China Sea, the annual cumulative service of such buoy anchor by ships amounts to 10,310 hours. Therefore, if estimation is conducted on such basis, the measure of "mooring buoy" can save fuel equivalent to more than 1,700 tons in one year, which equals to over RMB 13 million Yuan. At the same time, subject to the features that a ship is consisted of several main engines, and a ship with full load will consume much fuel oil, COSL has adopted the measure of deciding the service number of main engines in accordance with specific situations, and COSL will decide the start-up number of main engines and load rate in accordance with operation situations, where all engines will be started with the highest load rate, and single engine started with the load rate to be 50% or below. By such method, fuel conservation can reach more than 2,000 tons annually, equivalent to RMB 15 million Yuan. During ship construction, COSL has actively considered the application of various energy conservation technologies, taken comprehensive advantage of diesel-electric propulsion, visual measurement of energy consumption, frequency-conversing fan and other technologies, and has built environment-friendly and energy conserving ships.

'5~20%

Power System: Loss of energy efficiency can be reduced by 5~20% with efficient power system, hybrid power and clean fuel.

utilization of resistance reduction device.

'**5~10%**

Main Hull Structure: Loss of energy efficiency can be reduced by 5~10% through weight control, structure optimization, application of compound high strength steel materials, light-duty equipment and high-efficient equipment.



Superstructure: Loss of energy efficiency can be reduced by 1~2% with low wind resistance superstructure design and light-duty structure.



microbubble, low resistance bionic coating and environmental friendly

painting.

COSL's new measures on energy conservation and efficiency improvement

Case: New recycle scheme improving the utilization rate of oilfield associated gas

Under the "Qinhuangdao 32-6 Oilfield Adjustment Project", a new recycle scheme for associated gas was formulated by comparison among associated gas utilization schemes, based on the operations of existing fuel gas equipment and combining the electric heating load and available associated gas volume of newly-built platforms. The use of two fuel gas electric heating equipment – natural gas electric generator and water jacket furnace, has realized an increase in the utilization rate of oilfield associated gas by about 20%, a growth of burning associated gas by about 35 million cubic meters, and an accumulated conservation of self-consumed crude oil by about 28,000 tons. As a result, emissions have been reduced, the goal of energy saving and environmental protection has been accomplished and the oilfield benefits been improved.



Production Facility of Qinhuangdao 32-6 Phase I



Employees were cheering for the good function of "Qinhuangdao 32-6 Oilfield" on energy saving and environmental protection.

Case: Recycle of waste heat bringing about emission reduction and benefit improvement

Dongfang Terminal Treatment Plant installed a waste heat steam boiler to recycle the waste heat of exhaust gas from the turbo compressors that produced 15 tons of steam per hour and was integrated into the original steam pipeline. On the premise of meeting the steam demands, the plant also stopped using a fuel gas steam boiler successfully to reduce its fuel gas consumption. With an investment amount of RMB 33.87 million Yuan, the project is designed to annually produce 131,400 tons of steam, save 12.6 million cubic meters of natural gas, increase the sales revenue by nearly RMB 20 million Yuan and reduce the CO₂ emission by 19,400 tons.



The waste heat recycle unit of Dongfang Terminal Treatment Plant

Case: Combined cooling-heating power generation improving energy efficiency

Zhongshan Jiaming Power Plant built a Phase III 3×460 MW (F-class Modified) Cooling-Heating Power Generation Project in Zhongshan City. An advanced M701F4 (F-class modified) gas turbine was introduced in the project, outputting 70MW more than the M701F3 (F-class fundamental) unit combined cycle and increasing the efficiency by 2.5% to 59.5%. With the combined heat power generation, 77,000 tons of standard coal equivalent was saved per year in comparison with the F-class gas turbine basic type, and 610,000 tons of standard coal equivalent saved in comparison with the ultra-supercritical coal-fired power generation.



CNOOC Zhongshan Jiaming Power Plant



Case: Huizhou Refinery optimizing its energy system

In 2014, CNOOC Oil & Petrochemical Co., Ltd. Huizhou Branch implemented 25 technical innovation projects for energy conservation during the overhaul period to optimize its energy system. These projects had a total amount of RMB 57 million Yuan around, investing in the stepless speed regulating for compressors, energy efficiency promotion for pumps, ceramic coating



Factory Area of Huizhou Refinery

for heating furnaces, waste heat recycle system improvement for heating furnaces and integrated utilization of low-temperature heat, etc. As a result, the comprehensive energy consumption for oil refining was cut down by 1.15kg standard coal equivalent per ton, and the annual energy conservation reached 14,000 tons of standard coal equivalent.

Case: Recycle of waste heat from thermal medium furnace

The waste heat utilization has been popularized by the Company to the land terminal treatment plants according to the characteristic of selfgenerating electricity of platforms. In 2014, Bonan Terminal Treatment Plant installed 2 sets of waste heat recycle units to recycle the waste heat in the high-temperature exhaust gas from thermal medium furnaces as a way of heating supply for office buildings and production areas, with a



The waste heat recycle unit of thermal medium boiler in Bonan Terminal Treatment Plant Phase I

view to reducing the natural gas consumption of heating boilers. 120,000 cubic meters of natural gas and 236 tons of CO_2 emission can be reduced per year.

Case: The energy-saving and higher efficiency idea "rooting" in the Project Design Source

COOEC organized and formulated the *Measures for Evaluating the Energy Conservation Indicators for Design Projects* to deepen its management on the energy conservation and consumption reduction at the design source. Remarkable achievements were made in the energy saving and efficiency promotion by expanding optimization schemes, simplifying work flow and optimizing equipment procurement. In the design work of Pingbei Huangyan Oil and Gas Field Cluster (Phase I), the light hydrocarbon recovery can recycle approximately 290 million cubic meters of associated gas in the whole economic cycle, and the waste heat recycle can save energy consumption of the heat exchanger by 66.07 million kWh, calculated by 12 years.



Building Blue Sea & Sky through Energy Conservation and Efficiency Improvement

Emission Reduction

We continue our work in clean production and emission reduction. Based on the standard discharge, a ration system for total quantity pollutant is employed to assign the discharge indicators in a reasonable manner, procuring every working unit to accomplish the emission reduction goals.

Based on our information system for the environmental management, we implement an all-around management on "Three Wastes" discharged by the affiliated units at different levels, and take the filling, counting, supervising and alarming of the pollutant emission data into the information management. In this way, we realize a flattening and delicacy management for the environment protection.

We continue adopting the method of "reducing scale, replacing fuels and taking measures" to promote the implementation of emission reduction projects. By the end of 2014, 8 projects were completed, including the shutdown of thermal power plants, denitration transformation, and sewage treatment facility reconstruction, plus low-sulphur-coal measures were taken, achieving noticeable results in the emission reduction. In 2014, our emissions of SO₂, NO_x, COD and Ammonia Nitrogen were 12,376 tons, 18,015 tons, 1,757 tons and 448 tons, a year-on-year decrease by 23%, 6%, 9% and 9%, respectively.



Case: Good water quality of Xijiang Oilfield attracting whale sharks visit

Whale sharks often pay visits to the waters near Xijiang 23-1 Platform. This exactly benefited from the hydrocyclone process optimization carried out at the beginning of the year.

As a typical marginal field, Xijiang 23-1 Oilfield has entered high water cut period. The hydrocyclone is a key factor that affects the quality of outward drainage. By installing a temporary pipeline to renovate the existing process flow, the hydrocyclone's treatment capacity is improved to the maximum extent. Also each set undergoes non-conventional backflushing to repeatedly wash both the internal and external parts of cyclone tube, and the sediments accumulated at the lower part are discharged at regular intervals. These optimizing measures have substantially improved the platform's treatment capacity for production water and the quality of water discharged to sea.



Whale sharks pay group visits to Xijiang 23-1 Platform.



Case: CNOOC "green" power upgrading once again

CNOOC has been endeavoring to inject the green power into the economic and social development and witnessing preliminary achievements in the manufacturing of LNG shipping equipment. "Hai Yang Shi You 521", the first LNG double-fuel harbor tugboat in China that is developed, designed and manufactured by CNOOC, has been delivered to use. The second tugboat "Hai Yang Shi You 522" is under construction. It is estimated that every LNG double-fuel harbor tugboat can, within its 28-year service life, diminish the emissions of 25,142.41 tons of CO₂, 17.8 tons of SO₂ and 11,015.38 tons of NO_x.

Case: "Waste water" turning into "fertile water"

The sodium carbonate production by the ammonia-soda process can bring about a large amount of wastewater from ammonia evaporation. If the wastewater is directly discharged into the sea, the offshore waters will become a stretch of "white beach" and the vicinal marine life will be hard to survive. 20 years ago, CNOOC Shandong Haihua Group Co., Ltd. carried out the technological research for many years and developed a process by utilizing the ammonia evaporation wastewater to produce calcium chloride, not only turning waste into wealth and protecting the eco-environment of surrounding waters, but also creating the first example that the ammonia evaporation wastewater is not discharged into the sea in the history of soda production. Haihua Group's calcium chloride is the preferred product in over 20 provinces and cities in China, and more than a half of its products are exported to 11 countries and regions, such as Russia, America, Canada, South Korea, Japan and the Middle East.



Calcium Chloride Factory, CNOOC Shandong Haihua Group Co., Ltd.





"Nan Hai Sheng Li" FPSO

Recycling the associated gas with desulfurization of "Nan Hai Sheng Li" FPSO was a scientific research project at the outset which was designed with small treatment capacity and application scope. In 2014, an amount of RMB 4 million Yuan was invested to optimize the project by adding a gas storage buffer tank, rebuilding a boiler into a double-fuel boiler and perfecting the central control room's monitoring on the treatment system and emergency control. After completion of the optimization work, the associated gas desulfurization system runs more perfectly with stronger treatment capacity, maximizing benefits from energy conservation and emission reduction. Running for 350 days a year, this project will save 5,503 tons of crude oil, equivalent to 7,790 tons of standard coal equivalent, and cut down CO_2 emission by 14,869 tons and SO_2 emission by 833 tons, achieving remarkable economic and social benefits.

BIODIVERSITY CONSERVATION

CNOOC has always attached importance to protecting the ecological diversity of our operating sites and their surroundings. Protecting the environment is the Company's unwavering commitment during all phases of a project life cycle. In order to maintain a harmonious balance between the economic projects and ecological environment, the Company always makes it a point to pre-assess environmental risks during the pre-feasibility and feasibility study stages so that it can identify in advance the environmentally sensitive targets in the vicinity of the project, as well as avoid environmental risks and make the necessary arrangements in good time.

Through the platform of CNOOC Marine Environmental and Ecological Protection Public Welfare Foundation, we have actively committed ourselves to the ecological diversity research and protection project, promoting resource restoration and environment improvement in the area where the project is located, making our efforts to create better ecological conditions for building a beautiful China.



Enhancement and Release Activities in Xisha Sea Area

In 2014, CNOOC carried on enhancement and release activities in Xisha sea area. We invested about RMB 1.58 million Yuan in releasing more than 200 green sea turtles among national rare and endangered marine animals, more than 1 million babylonia areolata and other fishery resources unique in the South China Sea to the ocean, aiming to protect the marine life and conserving the fishery resources. It was of great significance to promote the sustainable development of Xisha fishery and increase the fishermen's income.

Larga Seal Protection

CNOOC has funded Dalian Fishery Administration Bureau to support its series of work in the larga seal protection and research. In 2014, the larga seal protection project investigated the glacial period of larga seal breeding waters in Liaodong Bay, and observed the larga seals living in the Mayi Island, at the banks of Huping Island and Panjin Shuangtaizi River



Estuary within the larga seal protection area; completed the petroleum hydrocarbon content analysis for marine life in the waters of Dalian National Larga Seal Protection Zone and Liaodong Bay, and finished the documentation work of petroleum hydrocarbon's impacts on the larga seal, laying foundation for further discussing the petroleum pollutants' impacts on the marine mammal; preliminarily completed the determination work of hematology and blood biochemical indexes for larga seals; carried out the field investigation on the current utilization of coastline along the protection area and data updating; built the larga seal salvation facilities and provided equipment for the larga seal salvation center at Shuangdao Town, Lvshun City; carried out the children drawing contest and publicity activity in some schools in Yingkou and Dalian cities of Liaoning.



Publicity Poster for Larga Seal Protection and Project Progress Report

Case: Heartfelt care for dolphin home

The Sousa Chinensis Voluntary Association was established by CNOOC Zhuhai LNG Receiving Terminal on May 30, 2014, and every employee is a member of the voluntary team. Sousa Chinensis, known as "Seaborne National Treasure" and "Waterborne Panda", was listed among the Class I Endangered and Protected Wildlife Species of China in 1988 and has been discovered to live in the waters of Pearl River estuary since Tang Dynasty. As Zhuhai LNG Receiving Terminal is situated at Gaolan Island, CNOOC employees tried not to disturb these rare "original residents" during the project construction. A slurry separation net was used to enclose the construction site in the course of seabed excavation and sea reclamation, so as to avoid increase of suspended substances in water and lessen the bacteria infection risks for dolphin body surface. Considering the high frequency noise from pile driving may



Sousa Chinensis are playing near Zhuhai LNG Receiving Terminal

affect their hearing, the pile driving was controlled at the beginning, with a slight force to heavier till normal, so as to mitigate the possible onsite impacts on dolphins. The LNG gasification process requires a large amount of sea water. After Zhuhai LNG Receiving Terminal was put into operation, the temperature of water discharged to sea was controlled at $\pm 5^{\circ}$ C with that of sea water, minimizing the production influence on the marine life.

Case: Upgrading of storage tanks, better for environment

Conserving the surrounding soil and underground water of work sites properly and diminishing the working influence on the ecological environment minimally is a duty-bound responsibility to us. In order to reduce the leakage risks of buried oil storage tanks in petrol stations, we have replaced the "single-layer tank" with the "double-layer tank", which has stronger resistance against corrosion and capacity for automatic alarm. In 2014, 59 petrol stations completed the replacement of double-layer oil storage tanks and 41 completed reconstruction of the seepage-proof pond for single-layer oil storage tanks in Northern China.

Case: Drilling platform becomes a habitat for seabirds



Xia Chenfeng, a safety supervisor, is flying seabirds.

Over the boundless sea, seabirds and dolphins are frequenters around the drilling platforms. These seaborne spirits bring happiness to CNOOC employees and also take their concerns away. The South China Sea is dominated by overcast and rainy weather in May, rendering many seabirds homeless, and thus the drilling platform becomes a habitat for them. On May 7, 2014, Xia Chenfeng, a safety supervisor, found several seabirds falling down on the aircraft deck in his patrol inspection. The platform employees fed these birds with water and food, and fly them away to the sky after their wings were dry.



Case: Enhancement and release for ecological protection

CNOOC emphasizes on protecting the marine ecological environment and marine fishery resources while developing the oil and gas in South China Sea. During the construction of Panyu 34-1/35-1/35-2 Gas Field, the trenching and pipe laying plan was adjusted accordingly to avoid the fish spawning peak period and the non-poisonous mud system was introduced in well drilling, together with artificial enhancement and release to better protect the ecological environment.

On May 29, 2014 in the waters of Lingdingyang Bay at Pearl River estuary, the largest habitat for Sousa Chinensis, CNOOC worked with Pearl River Estuary Chinese White Dolphin National Nature Reserve to release 920,000 fish and 30 million shrimp hatchlings into the sea. Dense islets and reefs spread over the release waters, conducive to their survival and growth that can restore the fishery resources rapidly and effectively, improve the fishery structure and fisherman income, and provide sufficient baits for Sousa Chinensis.



CNOOC is carrying out the enhancement and release activity in the waters of Lingdingyang Bay at Pearl River estuary.

Case: Construction waters become a habitat for dolphins

CNOOC constantly sticks to the environmental protection management on full life circle and actively advocates the balance between construction, production and ecological protection. At the early stage of Qinhuangdao 32-6 Oilfield Adjustment Project, attention has been paid to the influence on marine ecology caused by engineering projects. Through the environmental risk preevaluation at the pre-feasibility stage, it is found that the project is located at a place near the spawning and feeding areas of various marine lives and at the feasibility stage, a scheme for avoiding the spawning peak time is confirmed. Following the completion and production of project facilities, the construction waters has become a habitat for dolphins, getting a win-win result for both the ecological protection and engineering construction.



Dolphins are swimming in the construction waters of Qinhuangdao 32-6 Oilfield.





DRIVING SOCIAL PROGRESS

Employee Development Humanitarian Engagement Community Building Voluntary Service

EMPLOYEE DEVELOPMENT

Employees are the most valuable resource and asset of the Company. With the concept of "People Oriented", CNOOC seriously fulfills its responsibility to the employees, respects their legal rights and interests, improves work environment for them, concerns itself with their physical and psychological health and expands their career development space to achieve the common development of the Company and the employees, so that the employees from all over the world can write a harmonious chapter of CNOOC in different languages.



The frontline CNOOC employees show their healthy and optimistic spirit.

Career Development

CNOOC strictly abides by international and national laws and regulations, respects for human rights and proactively advocates our partners, suppliers and contractors to make common efforts to observe relevant regulations. We strictly implement the laws and regulations and policies on labor and employment of the country where the businesses are located and treat the employees equally. In the principle of fairness, impartiality and transparency and on the basis of qualities required for job, we recruit and use employees without any discriminatory provisions or behaviors to strive to establish a harmonious and stable labor relation.

We recruited 2,941 graduates throughout the year and totally 10,000 graduates or so over the last 3 years. By the end of 2014, the total number of the employees was 115,000, in which female employees accounted for 23%, and female accounted for 12% of the management of position manager and above, with 100% of signing rate of labor contracts, 100% of coverage rate of social insurances and 2.6% of staff turnover rate.





Focusing on the common development of the Company and the employees, CNOOC pays attention to provide the employees with access to growth and development. According to the characteristics of different works, we have designed three career development accesses including management, technology and work, and established a training system of "four in one" with respect to selection, training, assessment, and promotion & qualification authentication to improve personal professional ability and work performance step by step in a planned manner.



Case: Unimpeded access to growth

Strengthen the development of leadership. We strengthened the exchanges of management staff with the purpose of opening their eyes and enhancing their abilities by working in different environments and positions. In 2014, leaders promoted and changed totalled 115 person times. A mechanism for training and using young cadres was established and 10 post-70s employees were selected as one of the leaders of their respective subsidiaries, adding vitality and vigor. We attached importance to cultivate reserve cadres and selected and sent 43 outstanding young cadres to participate in the middle-aged and young cadre training course of the parent company to improve their comprehensive qualities.

Reinforce management on occuptional qualification. The professional title evaluation information system was adopted to realize the "paperless" processes of online application, review, evaluation, voting, etc., ensuring the openness, fairness and efficiency of the review process and results. In 2014, evaluation on 12 professional senior titles was organized with regard to petroleum geology, geophysics, development and exploitation, etc., in which 428 individuals were qualified for the positions of senior technical professionals; vocational qualification authentication was organized for professional supervisors in regard to exploration, borehole and drilling and completion operation, in which 13, 15 and 43 individuals were qualified for general supervisor or above level respectively, and the vocational qualified certification was implemented for all engineering staff in the Company.

Effectively promote skill appraisal. In 2014, we have organized the development or revision of standards on 9 types of work and test libraries on 29 types of work, laying a solid foundation for training and appraising skilled employees; the training for 678 appraisers and 30 supervisors was organized. 258 middle-age and young technicians were trained and 54 individuals were organized to participate in high-skilled talent exchange activities. Appraisals of junior, semi-senior, senior, technician and senior technician levels were organized for 60 types of work, with the number of appraisals totalling 8,341 person-times. By the end of 2014, the accumulative number of skill appraisal amounted to 42,500 person-times.

Organize the selection and recommendation of national highend talents. In 2014, 37 individual candidates and 4 advanced group candidates were recommended for such purpose together with 44 expert judges. The State Key Laboratory of Offshore Oil Exploitation (SKLOOE) was awarded the title of the Advanced Group of National Outstanding Technical Professionals, Zhou Xinhuai from Bohai Petroleum Administrative Bureau of CNOOC and Lu Tao from COSL selected to the National BaiQianWan Talents Program of 2014 and honored the title of A Young Expert with Outstanding Contribution, Ju Zhaogang from CNOOC Energy Technology & Services Limited and Liu Guohu from CNOOC China Ltd. -Shenzhen awarded the title of A National Technical Expert, Ren Shenghan from COOEC awarded the prize of the National Individual with Outstanding Contribution and COSL awarded the prize of the National Unit with Outstanding Contribution.





Number of skill appraisal


In 2014, we held 68,663 training courses, covering 1,049,700 person-times, for a total of 7,815,900 hours, 87.5 hours per person. 19 overseas training programs provided 400 international talents.



Case: Vocational training guides new employees

With the rapid development of CNOOC, since 2005, more attention has been paid to new employee training, with unified materials planning and teacher training, and the *CNOOC Professional ABC* was developed with the external assistance and 15 internal lecturers were selected from the system of CNOOC, and the number increased to 76 in 8 years. In 2014, the new textbook *We Are Here to Sail* was developed based on the original textbook and considering the actuality of CNOOC, 14 workplace micro-videos of CNOOC were written and directed, acted and shot by CNOOC's internal employees, plus workplace bibles of "three-do principles" and "three-three elements"

that provide cases and theoretical analysis closer to the actuality from different angles, helping new employees complete role changing successfully and grasp the new rules of workplace quickly.

The videos fit the company's actuality, and provide not only a mirror for the way of growth, but also work scenes of other units under CNOOC. Such a course is new to us, and the fact that so many people in so many units concern about us new employees does move us!

- Ye Ziwen, a new employee of CNOOC Gas & Power Group Co., Ltd.

The extraordinary creativity and meticulous arrangement of the new teaching materials and videos, especially the 360-degree CNOOC creative team, gives new employees a sense of shock as well as pride, when their senses of belonging to and pride in CNOOC are further deepened, laying a solid foundation for the successful teaching of lecturers.

- Ma Qiang, an internal lecturer





Numbers of PPT internal lecturers increase

Case: All-around safety training

Since I joined the big family of CNOOC Oil & Gas Development & Utilization Corporation in July 2013, I have undergone its safety culture, where "the safety training of company, workshop and team levels" proceeds, and examination must be passed and qualification be obtained prior to work. The company-level safety training focuses on regional regulations and rules, the workshop-level on standardized operation, when the team-level develops the details and steps of safe management to the fullest. During my internship in the workshop, the daily safety meetings before work and the experienced workers would teach us about the rules of safety. Such visual and audio teaching makes me deeply appreciate the immense importance the company attaches to safety and gives me a sense that the safety culture is also care for our lives. The rules of safety remain in our recollection, "to look, to listen, to think and to do", namely to look at the wind, to listen to the sound, to think about safety and to do properly.

- Chen Xiangning, a new employee of CNOOC Oil & Gas Development &Utilization Corporation in 2013



Case: Skill training cultivates masters

COOEC's standardized training system allows the skilled talents to outstand themselves. From discovering and giving key cultivation, the company spends 10 years on developing Liu Hailin into an international master welder.



Liu Hailin's Trajectory

- 1998 Joined COOEC
- 2009 No.1 Electric Welder of the COOEC Skill Competition
- 2010 Champion of Manual Arc Welding of ARC Cup International Welding Competition
- 2011 Technical Expert of the State-owned Key Enterprise
- 2012 Vational Technical Expert
- 2013 The Youngest Skilled Expert of COOEC (Aged 32)
- 2014 Technical Expert of the State-owned Key Enterprise and the Youth Post Expert of the State-owned Key Enterprise

Mr. Liu Hailin is checking the welding quality.



Case: Management training helps development

Collective Training Program for Direct-managing Leaders Additional Collective Training Program for New Direct-managing Leaders	Training Program for Senior Management
Training Program for Middle Managers Training Program for New Middle Managers	Training Program for Semi-senior Management
Training Program for Junior Managers Training Program for New Junior Managers	Training Program for Normal Managers

The "special training course of fine management" held by the college of executive managers CNOOC proceeds from CNOOC's actual situation, focuses on solving problems and enhancing abilities. It includes not only studies on GE Six Sigma, CASC fine management, Southwest Airlines' cost-saving efficiency, Formosa Plastics' lean management and other external cases, but also the on-site teaching by petrochemical enterprises, and different sectors under CNOOC also share their excellent experiences. Students are inspired to exploit potentials for energy saving from multiple angles and develop ideas of management innovation capacities that minimize the costs of production and operation, and thus improve work efficiency.

Students' comments:

Training courses not only invite companies doing well in the fine management within the Company to share their experiences, but also introduce theoretical courses with external viewpoints, promoting cross-disciplinary exchange and learning. As most of the students in this training are middle managers on production and equipment management, the curriculum is very suitable for us.

The College involves the fine management in the details of training and developed the procedure of "coming with cases and problems". The "structured discussion" with the whole design process of themes and roles forms a series of learning activities in active forms, such as the "student forum" in which students speak, people ask, guests comment

and the "wall of achievements" accompanying with pictures and words and gathering

wisdom, which enriches the teaching content and enhances the efficacy of training.

- Lin Wenjin



Students of the training course on fine management were concentrating on listening.

- Liu Ce

Case: International training promotes integration

COSL has developed a differentiated training mechanism. Over the past 10 years, a standardized training system has been forming up, including business schools, overseas study, differentiated training, language training, etc. A team of high-quality international personnel capable of overseas work is taking shape, presenting a forest of international talents.



COSL's Talent Training Mechanism

Case: Practical training harvests rich achievements

Systematic training propels the emergence of a batch of talents with skills, techniques, management capabilities and international visions in CNOOC. They bring their talents into play in each professional field, contribute their intelligence and power to the sustainable development of the Company.





"I'm a man who loves challenge. We again set a new record of laying composite tubes in a hundred meters depth, which makes me so happy and proud."

- Thomas (Malaysian), General Supervisor of "Hai Yang Shi You 201" ship



"An empty schedule will empty my heart."

- Shan Liwei, a winner of the National 51Labor Medal



"A seismic section always gives me passion and impulses me to find oil and gas fields." - Zhao Rumin, the Heronie of

geophysical prospecting



Caring for Employees

Employees are the source for sustainable development. We uphold the philosophy of "people orientated" and adhere to the distribution principle of "efficiency first, considering fairness", establish a linkage mechanism and a normal growth mechanism for employee remuneration and outcomes of enterprise development, leaning towards the frontline and low-income, low-level posts.

The Company continues to improve employee welfare system to settle employees' troubles of everyday life. In 2014, the Company has standardized the regulations on enterprise annuity receiving that allows employees to choose the most favorable way to receive; adjusted the work-related accident insurance coverage of accident insurance, properly compensating employees for injury risks due to accidents or diseases arising from work.

Case: A small piece of cake speaks for love

It is difficult for average people to understand the monotony and loneliness away from families in the 28 consecutive days afloat. A simple get-together, a small piece of cake and good wishes from colleagues, all of these moved employees in a different way. Men almost forgot to celebrate the birthdays of their own after a busy day, when colleagues in the canteen, who remember everyone's birthday, prepared a big dinner together with the cake after they got off work.



Birthday party for new employees at the Kenli 3-2 Oilfield



Group birthday party for Chinese and foreign employees at the Liwan 3-1 Platform

Case: Employee poverty alleviation fund warms people's hearts

The Company has set up a special poverty alleviation fund that gradually expands supports to needy employees and their families and helps more than 4,000 person-times per year, building a firm security line for their lives. Among others, in the Spring Festival Visits, the Bohai Petroleum Administrative Bureau of CNOOC visited more than 300 needy families and sent rice, flour, oil and other necessities; CNOOC Western South China Sea Corporation distributed allowance of more than RMB 560,000 Yuan to 19 destitute, impoverished and low-income families and 351 low-income survivors of former employees.



President Yang Hua visits a needy family in Zhanjiang.

Case: CNOOC "10m² of Love" wins UNICEF's approval

The plaque-awarding ceremony was held by the United Nations International Children's Emergency Fund (UNICEF) to CNOOC and CNOOC Enterprises Corporation, in Beijing, in which UNICEF recognized and appreciated CNOOC's active efforts to undertake social responsibilities and promote the "10m² of Love" breastfeeding advocacy campaign.



UNICEF officer was awarding the trophy for breastfeeding to CNOOC.



"I appreciate CNOOC's great attention and support on employees' breastfeeding. CNOOC as the first large-scale state-owned enterprise taking part in the '10m² of Love' breastfeeding advocacy campaign not only sets a good example for other enterprises, but also proactively contributes to building its international brand image, which produces great social effects."

- Gillian Mellsop, UNICEF's representative to China

Case: China Offshore Bitumen "Open Day" gets a good harvest

CNOOC Oil & Gas Development & Utilization Corporation held the "China Offshore Bitumen Open Day" event to invite more than 100 employees' children to closely experience the charm of the refining company. The children got in-person experience of using fire extinguishers, cardiopulmonary resuscitation, wearing breathing apparatus and other processes, learned the knowledge of petroleum science, fire control, first aid, household fire prevention, etc. and visited devices for crude oil distillation, lubricant hydrotreating, etc., seeing the wonderful process that how the crude oil became asphalts, lubricants through a series of site process. "What a wonderful social practice course, I am so proud that Dad can work here," said by a student visitor who happily described the achievement in this event.



The "China Offshore Bitumen Open Day" event of CNOOC Oil & Gas Development & Utilization Corporation



Case: Travel over mountains and waters to reunite at the platform



Family reunited at the platform with deep affection

As 2014 Lantern Festival coincided with the Valentine's Day, 32 employees' wives and children participated in the activity of A Day for Offshore Staff and Their Families held by COSL Drilling Division Zhanjiang Operation Company. They travelled to the "Hai Yang Shi You 931" platform in the process of dock repair and special survey from Zhanjiang, Henan, Hebei, Shaanxi, Fujian, Hubei, Anhui, Tianjin, etc. by different vehicles to reunite with families. On this day, they shot family photo, made dumplings and poured out their hearts.

"Dad, Mom did your favorite pickle specifically for you," said Jiajia, a 5-year-old child who was showing the "treasure" in her bag. The platform driller Su Feichao who just finished the night shift put on new work clothes deliberately, "I may look more spiritual, I don't want my pregnant wife to worry about me". From employees to their families, silent dedication and supports hid behind the deep affection.



Family reunited at the platform with warmth and sweetness

Case: "Thousand-Hundred Project" provides mutual assistance and aid

The Mutual Assistance and Aid Foundation of CNOOC Shandong Haihua Group Co., Ltd. helps not only the employees in illness, but also their families in trouble. The foundation is affectionately called the "thousand-hundred project" by employees. By the end of 2014, 100% of employees have participated in the mutual support activities, raising mutual support funds of a total of RMB 10.13 million Yuan. Over the past five years, a sum of RMB 4.692 million Yuan has been granted, aiding 3,119 person times of all kinds of needy employees.

"I am a member of the Mutual Assistance and Aid Foundation of CNOOC Shandong Haihua Group Co., Ltd.. A few years ago, my wife was hospitalized, and the medical expenses reached more than RMB 500,000 Yuan. While a large amount was reimbursed by the health insurance, more than RMB 100,000 Yuan remained to be borne by the individual. The Foundation considered my wife as an object to be aided for serious illness and sent RMB 30,000 Yuan as the assistance money, which greatly relieved the difficulty of my family. Thank the Foundation for regaining my confidence to the future!" said Song Liangzong, an employee of Shandong Yangkou Saltworks who appreciates the Foundation significantly.

Health of Employees

CNOOC always gives priority to the physical and psychological health of the employees. We unremittingly strengthen occupational health management, actively improve the operation environment, focus on the identification, analysis and control of occupational disease hazard factors in workplaces and carry out occupational health promotion activities to ensure the safety and health of the employees in an all-around way.

The Company took into account the work properties of employees and developed the *CNOOC Employee Health Promotion Management System* and the *CNOOC Psychological Health Management System*, to care for employees' health comprehensively from nutrition and diet to exercise indexes, fields to indoor sites and physiology to psychology. A regular test of occupational disease hazard factors has been conducted, with 100% coverage of occupational health surveillance and the occupational health examination rate reached 99.83%. A new case of laboratory occupational chronic benzene poisoning was found and the employee has been properly arranged according to the national requirements in 2014. Then the Company investigated and eliminated laboratory occupational disease hazard risks, strengthened occupational health management in laboratories in accordance with the relevant requirements.

Conducting evaluation of occupational disease hazard on construction projects. In accordance with the requirements of simultaneous design, construction and simultaneously putting into use of the occupational health of construction projects, pre-evaluation on occupational disease hazards has been taken for 117 projects in this year, evaluation on the effect of occupational disease hazard control for 87 projects and assessment on the status quo of occupational disease hazards for 54 projects.

Creating a list of grade and management system as to common occupational disease hazard factors. The Company has identified 72 occupational disease hazard factors and prepared a list of severity of 47 common occupational disease hazard factors, and helped to achieve the priority grading of occupational disease hazard factor by means of the occupational health management system.

100%

Coverage rate of regular testing of occupational disease hazard factors

99.83%

Occupational health examination rate



Boys in "Hai Yang Shi You 116" FPSO oil recovery team



Improvement of occupational health management in workplaces. Special treatment was carried out to any hazard exceeding the standard conditions found in workplaces. Regular testing of occupational disease hazard factors has been conducted at 906 workplaces throughout the year at the test implementation rate of 100%.

Improvement of the level of management by strengthening occupational health training. The Company specially organized the occupational health management personnel to participate in the trainings and seminars, and organized the "Noise Deaf Prevention – Develop a Hearing Protection Program" seminar, in which the world-renowned hearing protection expert was invited to systematically introduce the basic knowledge of noise, noise hazards and protection with teacher-student interaction and apparatus presentation, achieving positive effects.

Case: Follow-up and treatment of newlyincreased case of occupational disease

For the newly-diagnosed case of occupational chronic benzene poisoning in 2014, the Company made special investigation at the site and proposed specific requirements and measures. Meanwhile, the Requirements for Preventing and Controlling Laboratory Occupational Disease Hazards was issued, which is used to identify hazard factors, assess the severity according to the identification principle of occupational disease hazard factors, and take prevention and control measures. We controlled the source, and managed the preparation of protection and first-aid facilities and first-aid medicine and regular testing; properly informed the occupational disease hazards, arranged occupational health training and provided personal protective equipment; strengthened occupational health surveillance on the exposed population; assessed the status of occupational disease hazards at the relevant laboratories, improved laboratory personnel's exposure and the processes of experimental operation unit and enhanced the tightness of equipment.

Case: "Hearing Protection" movement is ongoing



"Hearing Protection" introduction and demonstration

The "Hearing Protection" movement was carried out in the CNOOC Eastern South China Sea Oilfield. All offshore employees participated in the hearing protection training about the requirements of hearing protection, facility noise monitoring results, noise-exposed operation and its taboos. In each offshore operation area, the relevant knowledge was introduced through bulletin boards and employees were organized to review the proper way of using the hearing protector.

Case: Caring for employee health, health embraces CNOOC

To promote the physical health of employees, CNOOC developed the *CNOOC Employee Health Promotion Management System* in 2014. The professional health management institution was hired to individually tailor exercise and diet programs for each employee and to organize, track, supervise participants to take active actions. Instructions and adjustments were also timely made to the health intervene programs, to help employees develop scientific exercise and dietary habits.

CNOOC Western South China Sea Oilfield organized offshore employees to carry out work-break exercises, guiding people to do exercises by making full use of the limited space.



"Health embraces CNOOC" Campaign



Work-break exercises

Case: Controlling the employees' health from the outset

Healthy diet is the first step for the health of employees. CNOOC strictly follows food hygiene procedures in regardless of onshore canteen or offshore catering, and makes every effort to guarantee food safety for employees.

The Company adheres to the principle of "precise detection, refrigerated transport", effectively safeguards the first step of food safety at sea. Every day, upon the delivery of various food materials to the distribution sites, inspectors in the food safety testing center





of the Company will sample each batch of food materials for more than 50 items of testing with respect to pesticide residues on fruits and vegetables, heavy metals and additives in food, etc. We make scientific nutrition recipe and cook elaborately to ensure the offshore employees can have delicious and fresh meals.

Onshore restaurants contend for the "model canteen", start from standardized management and strict food security management, to create a "CNOOC model" of healthy canteen. The Chaoyangmen Restaurant at the CNOOC Mansion is one of the models, which was honored as the Rank-A restaurant in Beijing in 6 consecutive years and awarded the title of "A Healthy Canteen of Central State Organs".

Case: Building a passage of life between land and sea

One morning in July 2014, a crew member of the "Binhai 512" ship working 110 nautical miles away from the shore was suddenly attacked by myocardial infarction. COSL immediately launched the emergency plan and informed the land. The Coordination Department of CNOOC China Limited-Shenzhen requested emergency flight with the fastest speed.

The helicopter took off at 8:55 am and arrived at the ship at 10:44 am, the suffering crew member entered the Shenzhen Nanshan Hospital through the green channel at 12:39 am. It took only 4 hours from receiving the aid request to arriving at the hospital.

Up to now, CNOOC "Maritime Emergency Center" has over 260 professional persons for on-site medical services, covers more than 120 offshore operation points and land-based terminals, receives more than 70,000 patients per year, emergently transfers 60-70 patients of severe cases at sea and transfers 40 patients or so in optional time. The center was praised by the SOS as "a stunning Chinese maritime rescue force".



A drill of emergent patient was transferred by flight and vehicle.



Case: Psychological health, Enterprise's Sunshine

CNOOC has made great efforts around employees' psychological health, set up psychological counselors in each platform and carried out psychological intervention on safety supervision, frontline family hotline and other programs for offshore employees. The Company has been vigorously promoting employee health education, employee sub-health management, EAP program – a psychological assistance plan for years and set up health directors, established the health management module together with the office work platform. In addition, we also carried out psychological care for employees of different types of work and ages through QQ consulting hotline, Sunshine SMS, posters and other means to benefit all employees.

Survey data from psychological consulting agencies show that CNOOC employees' satisfaction, loyalty and engagement to the Company are higher than the national average. COOEC, for example, enjoyed a proportion of employees with high-level satisfaction of 46.1%, 4 percents higher than the national average.



The optimistic frontline employees

Case: Listening to your story

Since the launch of the "Managing the Psychological Health and Stress of Offshore Employees" activity, Oil Recovery Service Company of CNOOC Energy Technology & Services Limited has ushered 8 groups of visited experts who provided 128 times of one-to-one consultation, drew 230 psychological curves and conducted psychological counseling and tests for 230 employees.

The new employee Zhao suffered from insomnia after several shifts at sea. The expert carried out stress and emotional management tests for him and directed him to master six methods of common psychological behavioral training. Zhao followed the orders and kept training and writing psychological diary and the insomnia was soon relieved.



Expecting psychological experts to visit offshore sites

Case: Employees undo "heart" knots through interaction

The group psychological consulting activity on the Suizhong 36-1 Central Platform consisted of several funny games that required employees' collaboration. At the site of the "Thousands of Heart Knots" activity, it took 16 persons merely three minutes to undo the knots, and the psychological behavior trainer spoke highly of such tacit cooperation of the employees.

The activity lasting for nearly one and a half hours made all the employees present feel the strength and warmth of the team. As the platform electrician Meng Fanwei said, "Through this 'hand' and 'heart' communication, I feel my heart gets closer to others and our relationship becomes better. I do look forward to the following psychological lectures and on-site consultation."



Psychological behavioral trainer played interactive games with employees.

Case: Happy work, healthy life

CNOOC Energy Technology & Services Limited created the new way of "Happy Work, Healthy Life" to promote employees' physiological and psychological health. The company widely publicizes knowledge of health to employees through the "Health Corner" and analyzes and assesses health examination according to the results of examination. In 2014, we provided "Know-yourself Health Management" services for 150 employees of subsidiaries suffering from hypertension, hyperlipidemia and hyperglycemia and metabolic disorder, and organized all the employees to actively participate in the "10,000 Step Walking" event. The company focused on employees' occupational health in workplaces, and included 81 workplaces and 1,094 operation points with occupational disease hazard factors in management with the occupational health management information system; provided 4,334 employees with occupational health examination throughout the year; gave extensive psychological health support services through psychological health training, on-site psychological consulting, psychological assistance hotline 400, E-mail of Hearts, Sunshine SMS, etc., enabling employees to work happily.



Series of reports for employee health of CNOOC Energy Technology & Services Limited



Employee Participation

The Company attaches significance to democratic administration and constantly improves the employee democratic management system, effectively protecting the employees' rights to be informed, to oversee, to participate and to be heard. *The CNOOC Work Instruction for Female Employees* was issued to practically safeguard female employees' legitimate rights and interests. We strengthened the rights protection of labor union organization, established and kept improving and perfecting the enterprise democratic management system and the factory affair disclosure system with the basic form of workers' congress and issued the *Detailed Regulations for Establishment and*



Management of Workers' Congress, effectively protecting employees' rights to participate in the democratic decision-making, administration and supervision of the company, with a 100 percentage of employees participated in workers' congress. Channels to report employees' opinions and to transmit to lower levels were effectively unblocked through the forms of collecting proposals for workers' congress and rationalization proposals, community-level investigation, the General Manager Reception Day, suggestion box, on-site work, publicity of factory affairs, replying on internet forum, etc. 28 new media platforms on micro blogs and WeChat were newly established to further broaden channels for democratic management, allowing employees to fully express their opinions and to participate in company management. In 2014, the Company has collected 25,575 items of rational advice from employees, in which 6,853 items of good advice were adopted.

Case: Rationalization proposals emphasize practicality and incentives

CNOOC Energy Technology & Services Limited makes collection of rationalization proposals permanent. In 2014, the subsidiaries collected 2,109 rationalization proposals from employees, out of which 596 were accepted.

Guangdong Zhuhai Jinwan LNG Co., Ltd. adopted employees' advice to optimize technical processes, achieving 100% recycling of refrigerant. A small tube worth RMB 500 Yuan solved a big problem, avoiding a direct economic loss of RMB 144,000 Yuan per year.

Case: Practically handling and replying on employee proposals

The labor unions of subsidiaries of CNOOC practically handle and reply on employees' proposals. In 2014, CNOOC Bohai Corporation collected 25 available proposals, all of which were implemented by the proposal working group subject to the procedures. The CNOOC Research Institute received 25 proposals, where 15 were available, and the situation of handling all the proposals has been reported to all employees in workers' congress.



The operator was discharging surplus refrigerant into the newlyadded recycling tank.



The Workers' Congress of CNOOC Bohai Corporation

CNOOC promotes the culture of "be dedicated, effective and innovative". In 2014, series of posters and books on CNOOC culture were distributed to frontline units. These departments actively created conditions to carry out various healthy and positive cultural & sports activities, enhancing employees' cohesion and sense of belonging to the Company.

The CNOOC Employee E-book Library was built. It includes 1,000 kinds of electronic journals, 100,000 electronic books and 500 industry newspapers, covering politics, management, science and technology and so forth, available for employees of different ages, education levels and reading preferences. Employees and their families can read newspapers, journals or books they like through computers, mobile phones, tablets and others online at any time.

Case: Cultural & sports activities

The Company sets apparatus and facilities for cultural and sports activities in the light of local conditions, proactively facilitating and creating the conditions for exercise of employees and retirees. We founded group basketball and badminton associations, structured platforms of activities and carried out cultural and sports activities of various forms for and loved by the masses. We collected and sorted out more than 80 excellent songs written by the community-level frontline employees, and edited and published the *Blue Rhythms: CNOOC Best Song Collection.*



Community open-air fitness dancing



Social gathering for singles in Zhanjiang



CNOOC Shandong Haihua Group Co., Ltd. held employee lecture, building a cultural exchange platform.



Golden wedding celebration activities in Bohai Community



Case: Students visit CNOOC in summer vacation

7 members of the summer practice group of China University of Petroleum visited the basic and specialized laboratories in the "Inspection, Testing and Evidence Analysis Platform of Offshore Oil Professional Equipment". In the discussion, they showed special concern to offshore oil, and expressed their willingness to work in CNOOC after graduation and dedicate their youth to the cause of offshore oil.



Students of the China University of Petroleum in CNOOC production site

Case: Offshore veteran's love to CNOOC

As Wang Xianmin, an employee on the offshore platform said, "Scenes of the past over 30 years are still vivid in my mind. As an offshore 'veteran', I have used up 200 work record books, but I won't stop recording details in the work and expect to share with the latecommers."



Offshore veteran was making work record

Case: The most beautiful frontline workers of CNOOC

In 2014, the Company changed the previous way of selecting model workers, but carefully chose 12 stories to form the CNOOC Most Beautiful Frontline Worker Tour Lecturing Group to carry out 8 story-telling sessions in 8 business areas, attracting more than 8,000 audiences to hear. These story-telling sessions used video, music, picture and other forms to show CNOOC workers' mien. Difficult operations in the equator and the North Pole, dangers on the seabed, emergency transportation, loneliness in line patrol... Through videos and pictures, the speakers told emotionally and touched the audience deeply.



The portrait of an offshore operator



The divers dive into the icy sea and work on the seabed.



The inspectors of CNOOC Hainan Pipeline, who are father and son, search around the jungle throughout the year.



30 years of sustainable and healthy development of CNOOC is closely related to the support and help from each stakeholder. We believe the fundamental of enterprise social responsibility is to facilitate the economy and employment by enterprise development for giving back to the society with development achievement. In 2014, we continued to devote to humanitarian engagements, voluntary service and making joint efforts to build the community with a yearly total investment of RMB 116.72 million Yuan.

HUMANITARIAN ENGAGEMENT

Humanitarian engagement is the main method to fulfill our social responsibility. CNOOC Marine Environmental and Ecological Protection Public Welfare Foundation is the unified management platform for public welfare programs such as charity and environmental protection carried out by CNOOC.

CNOOC proactively promotes and adheres to the parallel performance of economic, political and social responsibilities. In 2014, we made efforts to fixed-point poverty alleviation, caring for students, special public welfare and other philanthropies.

1995

Leader team of poverty reduction was established

2002

Leader team of poverty reductior and aiding Tibet was established

2013 Charity project

was under the unified management of foundation

2012

CNOOC Marine Environmental and Ecological Protection Public Welfare Foundation was established

2007

2014

Constantly Advancing in 2014

> Charity Committee was established



Fixed-point Poverty Alleviation

CNOOC always adheres to the poverty alleviation principle "overcome difficulties, support foundation, and establish longeffect mechanism", undertakes the responsibility for fixed-point poverty alleviation, injects enterprise's power to help the impoverished areas shake off poverty and search the potential of constant development.

We unceasingly propel the poverty alleviation programs in six cities and counties under Hainan, Gansu, the Inner Mongolia Autonomous Region and the Tibet Autonomous Region. Poverty alleviation fund of RMB 47 million Yuan has been invested in the full year. In 2014, we increased the fund for Wuzhishan City and Baoting County in Hainan to RMB 3 million Yuan per year respectively.

Case: Supporting talents, upgrading education

CNOOC continues helping Baoting County, Hainan, improve education conditions. In 2014, we donated RMB 3 million Yuan to continue the support to the teaching building construction of the Nanmao Middle School. Since 2007, 5 teaching and students dormitory buildings have been built in Baoting County under our support.

In the past few years, teachers in Baoting County were awarded national or provincial prizes in various teaching competitions, and students' overall performance in the National College Entrance Examination was increased.

The teachers and students of Baoting County highly recognized the concept of supporting talents and praised CNOOC as the impeller of improving education conditions and level of Baoting County.



Li Xiafang and Lin Runxin admitted to Beijing University and Tsinghua University



Lin Runxin received the admission notice of Tsinghua University





Distribution ceremony of CNOOC "Phoenix" Educational Assistance Fund of Wuzhishan City

In 2014, CNOOC donated RMB 100,000 Yuan to the CNOOC "Phoenix" Educational Assistance Fund of Wuzhishan City, continuing to fund the local impoverished girls and help students excellent in character and learning to go to universities. The assistance fund of the current year was distributed to 80 impoverished students and 7 impoverished graduates admitted to universities.

Case: Focusing on livelihood, medical services going ahead

In 2014, CNOOC contributed RMB 5 million Yuan to Hezuo City to construct the 1,700m² Medical Technology Building of the Traditional Chinese and Tibetan Medical Hospital of Hezuo City, Gansu, to solve the difficulties of treatment and improve poor medical environment. We constantly supported the establishment of several rural hospitals in recent years to help Hezuo City in establishing and improving a service system of medical treatment and health care.

Traditional Chinese and Tibetan medicine were well received by the Tibetan masses: "Tibetan medicine is cheap and effective, saving us a lot of money, and we no longer have to see a doctor or buy drugs in some other places."

Case: Structuring warm barns

Xiahe County is a livestock county in Gansu, and cattle and sheep farming is the main source of income of farmers and herdsmen. To support the development of the animal husbandry, increase people's income, CNOOC contributed RMB 5 million Yuan to purchase livestock and feed for farmers and herdsmen and structure barns in 2014, in addition, assisted the local people to make further efforts to develop breeding industry and to promote the development and stability of agricultural and pastoral villages.



Warm Barn

Case: Reconstructing adobe houses

Xingguo County, Jiangxi is a national-level key poverty reduction county. The number of destitute families here were large, mainly including martyrs' widows, households enjoying the five guarantees, rural low income households and families that have members with disability, who faced actual difficulties in adobe house reconstruction. CNOOC contributed RMB 2 million Yuan to help 200 destitute families in Xingguo County to carry out adobe house reconstruction between years 2013 and 2014. Villagers moved into comfortable new houses from the rough adobe houses and started to live a happy and peaceful life.

Case: Open a way to the outside

CNOOC funded Zhuozi County, Inner Mongolia to build a road connecting Fuxing Township with Lihua Town, opening up the most convenient passage connecting Fuxing Township to the outside.

There are 8 natural villages under Fuxing Township, Zhuozi County, Inner Mongolia, with 11,863 permanent residents. The local people have always been blocked from the outside world by mountains, and have to travel along the simple road at the pass of the Huangyu Mountain for going to the outside, with an altitude of more than 2,000 meters.

Since 2013, CNOOC carried out fixed-point poverty alleviation in Zhuozi County, took "pump blood before transfusion", "reduce poverty, roads go ahead" as the breakthrough in poverty alleviation, and invested RMB 3 million Yuan in constructing the Zhuozi Highway in 2014. We strove to complete the works of road foundation and surface hardening with only four months before the road was frozen.



Before and after the highway open to traffic





Case: CNOOC aids Tibet with intensive enthusiasm

In 2014, the fifth group of employees sent to aid Tibet in CNOOC carried out the construction of projects of aiding Tibet in Nyima County, Tibet, and completed the continued construction project of the new village of the 4th village, Nyima Town, the construction aid project of Wenyu Road, the reorganization and expansion project of the combined junior-senior Primary School of Nyima County and the renovation project of the Nyima Hotel as scheduled.

Employees sent to aid Tibet also allocated the resources of their subsidiaries to train 7 managerial or skilled talents for the county. After returning to Tibet, the trainee from the Nyima Hotel Basandro Mar applied the advanced knowledge of management learned in CNOOC to managing the newly-open "Oxygen-enriched Garden", making the daily revenue increase by over RMB 4,000 Yuan.



New Village of the 4th Village, Nyima Town

The continued construction project of the new village of the 4th village, Nyima Town covers an area of $15,650m^2$ and provides four types of residential house including $90m^2$, $75m^2$, $65m^2$ and $45m^2$, significantly improving the residential environment of the local farmers and herdsmen.



Wenyu Road Built

As Wenyu Road, Nyima County connects the central square with the long-distance bus station, its building strengthens the development of local infrastructure, improves the environment and facilitates people's travel.



Laboratory Building of the combined junior-senior Primary School of Nyima County

The expansion project of the combined junior-senior Primary School of Nyima County included the construction of the integrated laboratory building and the employee dormitory building. The integrated laboratory building has a floor area of 1,118.2m², with 15 experimental classrooms, filling the blank of experimental classroom in Nyima County; the employee dormitory building has a floor area of 972.8m², solving the problem of house shortage of 16 staff.



Tibetan Trainee brought back technologies

The renovation project of the office of Nyima County to Nagqu included the maintenance and decoration of hotel reception, corridors and 25 rooms. The completion of this project improves the hardware and the environment of the hotel, supporting it to enhance service quality and expand the market.

Caring for Student

Children are the hopes and the future of the country. CNOOC has always been concerning about the growth of children, making efforts to improve the education environment of poverty-stricken areas. By aiding the construction of the Hope School, funding needy college students and others, we reduced the financial pressure on students from impoverished families, created a good learning environment for students and enhanced the education level of poverty-stricken areas.

Case: Supporting Hope Schools, warming the old revolutionary areas

In 1996, CNOOC invested and built four CNOOC Hope Schools in the old revolutionary base areas, including Longhua County, Luanping County and Mancheng County in Hebei. After they were built, CNOOC gave constant assistance and support as to school maintenance, teaching condition and level improvement, outstanding student incentives, needy students aiding and others, making the conditions of teachers and level of teaching among the best of the local schools.

CNOOC aided 32 needy students of Nanguan Primary School in Yanchuan County, Yan'an City in 3 consecutive years, gave each of them RMB 1,000 Yuan a year, ensuring the education of children in the old revolutionary areas and sharing them with chances of education.



Children in class in the Hope School

Distributing sports goods to children in the Hope School



Case: The library was built

In 2014, the First Fertilizer Department of the Hainan Base of CNOOC China BlueChemical Ltd. donated the Dream Library of the Gong'ai Primary School of Dongfang City, with 800 books or so, making nearly a thousand pupils' dreams of reading come true.



CNOOC China BlueChemical Ltd. donated the Dream Library for Primary Students

Case: Uyghur boy goes to school



The Little Uyghur boy with his calf

The Uyghur boy Kudirat, 10 years old, never studied at school until this year. An employee of CNOOC Xinjiang Branch found the boy on his way to the operating site while the boy was crying for his lost cattle. After learning the difficulty of the boy's family, the employee put the family on the list of aiding of the company. Therefore the boy said goodbye to the days out of school.

Since entering Xinjiang, CNOOC Xinjiang Branch has donated more than RMB 100,000 Yuan in the special benevolence fund to helping over 40 impoverished households.

Case: A Hope School is a high-quality project



After the 6.5-magnitude earthquake on August 3, 2014 in Ludian County, Zhaotong City, Yunnan, the teaching building of CNOOC COSL Hope School at Zhangjiaping, Huodehuo Village was safely intact.

COSL donated a total of 12 "CNOOC COSL Hope Schools" in Yunnan and Hainan, benefiting 4,000 students. In 2014, COSL was awarded the prize of

Outstanding Contribution Award at the Twenty-fifth Anniversary Celebration of the Hope Project.



The teaching building was safe and sound after earthquake.

Special Public Welfare

Mother Water Cellar Project

CNOOC continued the donation to the "Land of Love · Water Cellar for Mothers". Since the charity launched, the company persists in donating RMB 2 million Yuan yearly for the benefits of people in the West China under severe water shortage. CNOOC was awarded the Model Award of the 2014 Chinese Women's Charity Awards.

In 2014, the funds contributed by CNOOC were mainly applied to construct the new "Mother Water Cellar" water conservancy works, carry out the "Mother Water Cellar \cdot Campus Safe Water" project in the local primary and middle schools and develop pilots for the Beautiful Villages in Yan'an project.

Safe Water Project

In 2014, CNOOC concluded and signed an agreement with the Foundation for Poverty Alleviation in Yinchuan, agreed to donate a sum of RMB 100 million Yuan within three years (RMB 20 million Yuan was donated in 2014) to support the connecting project in Pengyang County for urban-rural Drinking Water Safety Project in the Central and South Ningxia.



"Mother Water Cellar" Campus Safe Water Program: the Central Primary School of Chuankou Township

Loving Care Nutrition Package

In 2012, CNOOC signed a donation agreement with the China Children and Teenagers' Fund, to invest RMB 1 million Yuan and provide 10,000 infants with the Loving Care Nutrition Packages per year in three consecutive years. In 2014, the 1 million Yuan donated by CNOOC was used for distributing the nutrition packages to 10,000 infants in Anding District and Xifeng District, Gansu.



Loving care nutrition package

Lifeline Express

CNOOC took part in the project "Lifeline Express" since 2003, and accumulatively donated over RMB 13.82 million Yuan.

The "Lifeline Express - Ophthalmic Microsurgery Training Center" and the "Lifeline Express of China - CNOOC Cataract Treatment Center" donated by CNOOC were completed in the Hainan General Hospital, the People's Hospital of Deyang City and the Third People's Hospital of Guangyuan of Sichuan in 2008 and 2012 respectively. By the end of 2014, the operation fees of 942 cases



Wards in the Express

of cataract surgery have been relieved or waived, and these two projects donated by CNOOC brought tangible benefits for the local needy cataract patients.

In 2014, CNOOC's donation was mainly used for 250 impoverished cataract patients in Changling, Jilin to accept operations.



COMMUNITY BUILDING

CNOOC proactively carries out community building, make efforts to share our resources with communities and pay back with our development. We help the residents settle life difficulties, make use of our advantages to drive the development of communities and create safety and harmony in the communities. We proactively commit ourselves to serve the community, create harmony and bring benefits to people. In recent years, we carried out a series of heart-warming projects that would help promote the development of communities, and hammered at creating harmony, safety, civilization and development in the communities, to effectively improve the residents' living level and build a beautiful home.

Case: Protecting safety, caring for communities

Guangdong Dapeng LNG Company Ltd. of CNOOC Gas & Power Group Ltd. possesses pipelines of 441km, and with the safety maintenance and the active cooperation of the communities, no gas accident has occurred in the past 8 years.

Dapeng LNG visits community nursing homes, schools annually and donates rice, oil, stationery and other materials. We helped them keep in mind the emergency phone line for pipeline safety by means of taking public film screenings for the villagers, conducting quiz with prizes, presenting schoolbags printed with slogans on pipeline protection and emergency hotline number as gifts and others, guiding them not to dig or do construction without authorization, driving residents along the pipelines to jointly safeguard pipeline safety. Some elders and students voluntarily joined the ranks of pipeline maintenance supervisor.



Over 340 students at the Lianhe Primary School of Tiantou Village, Huizhou City carried new schoolbags with pipeline safety instruction

Case: Assisting in pairs

In 2013, CNOOC Eastern China Sea Petroleum Administration and Weidong Village, Shanyang Town, Jinshan District, Shanghai concluded and signed a five-year agreement for assisting in pairs, agreeing to make joint efforts in development, organization, talents cultivation and civilization. In 2014, the Administration invested RMB 200,000 Yuan in founding the "CNOOC · Weidong Village Charitable Development Fund" with Weidong Village, to aid poor villagers and impoverished families due to illness and provide job training for unemployed villagers, supporting the development and construction of Weidong Village.

Case: Setting up special fund to support community development

COOEC Qingdao Branch set up the special fund to donate RMB 450,000 Yuan to the Charity Federation of Qingdao Economic and Technological Development Area in 3 consecutive years for the use of primary school and early childhood education.

COOEC Zhuhai Company proactively participated in the development of neighboring communities and set up the "Creating a Happy Resident Environment" special supportive fund, planning to invest RMB 200,000 Yuan in the following 2 years.

Case: Supportive projects benefit villagers

Since 2010, CNOOC Western South China Sea Oilfield began to support four and two impoverished villages in Potou District and the Nansan Coastal Tourism Demonstration Area, Zhanjiang City respectively. The company funded Huangtong Village to establish an orchard base, donated trucks to Lantian Village for gaining rental and helped Dalong Village, Guandu Town, Zhanjiang take stakes in the local Tenglong Printing Co., Guandu Garment Factory and other leading enterprises. These blood-pumping projects not only benefited the villagers, but also brought hope to their lives. In addition, the company also funded the house renovation of poor families and the school education of their children, established a "Hope Home" for the left-behind children, etc. By the end of 2014, the company has invested a total of RMB 5.41 million Yuan in helping impoverished villages to develop collective economy and individual economic projects for needy population. By now, all the committees of the four impoverished villages in Potou District have realized an annual income of over RMB 30,000 Yuan, the annual income per capita of poor families exceeds RMB 2,500 Yuan, and dilapidated houses of 100 poor families have been renovated. 56 poor villagers in Dalong Village received dividends from the two enterprises, with an amount of RMB 2,000-4,000 Yuan subject to their specific poverty levels. As Liang Guo, Secretary of the Party Branch of Huangtong Village said with emotion, "a good project contributes much more than money and goods! I do appreciate what CNOOC has done!"



Helping impoverished villages take stakes in the local leading enterprises



Funding Huangtong Village to run the orchard collectively under contract

Case: Yesterday's muddy today's smooth road

In 2014, the 2.31km village road built under the support of CNOOC Eastern South China Sea Petroleum Administration was put into use in Huangchuan Village, Dubu Town, Yangshan County, Qingyuan City, Guangdong, allowing the villagers to say goodbye to the rugged muddy road.

"CNOOC helped us fix a big problem that we always intend to but fail to solve!"

- Feng Shanhui, Village Head



Case: Protecting the Temple of Matsu

The temple of Matsu located in the planning area of CNOOC Shenzhen LNG Project is believed in by generations of villagers in Diefu Village as their spiritual sustenance, to protect this cultural heritage, the company actively adjusted project planning to cut the land used, preserve and renovate the temple.

On the birthday of Matsu, the employees of Shenzhen LNG Project will worship Matsu and pray for fortune together with the local villagers every year.



The Matsu Temple silently safeguards the Diefu Mountain



Employees of Shenzhen LNG Project prayed together with villagers of Diefu Village

Case: CSPC supports local English teaching

CSPC makes full use of the language abilities of employees in the joint venture, and have encouraged employees and their families to voluntarily teach English at the local schools since the construction period of the project, benefiting more than 5,000 person times, and was therefore honored the tile of "2014 Advanced Unit for Respecting Teachers of Huizhou City".

8 sessions of the "Community English Corner" activity were held by 50 CSPC employee volunteers at the Daya Bay Jin'ao Chinese-English School, the No.1 High School and the No.3 High School of Huizhou, involving more than 350 students and teachers in 2014. CSPC also cooperated with the Publicity and Education Bureau of Daya Bay to hold the "To Learn English, to See the World" cultural salon, in which CSPC foreign employees, returned employees after studying in Europe or the United States shared with the students of the No.1 High School of Daya Bay their experience of studying abroad and cultural exchanges.



2014 CSPC Community English Corner



CSPC cooperated with the Publicity and Education Bureau of Daya Bay to hold the "Learn English, View the World" cultural salon

Case: Cultural activities after retirement



The "CNOOC Folk Dance Troupe" participated in the Harmonious Community Construction Artistic Performance of Beijing.

"Cultural Living and Family Love after Retirement" is actively advocated in CNOOC Enterprises Corporation, instilling the kinship culture into community management. The company systematically organized retirees to take part in activities such as photography, painting and calligraphy and the elder dance troupe in the communities, and built a harmonious community together with the local government and community residents.

The retirees were organized to participate in the Young-Old Funfest at the local kindergarten, in which they acted as instructors to tell children stories and do handwork with them, bringing them with knowledge and joy.



Retirees were teaching children to do handwork.

启迪業 Enlightening a Blue Dream, Spreading Ocean Culture 蓝色梦想 传播海洋文化

loratic

The China National Offshore Oil Industry Exhibition Hall, a national base for maritime awareness education, has become widely known within a few years and been developed into a lively classroom of the "Blue Sky Project" from the window of popularizing ocean culture. More and more people come here to experience the charm of ocean culture in depth, by which the seeds of a blue dream take root and sprout in their mind.

48 sessions of "Open Day" were held and received a total of 2,120 students and teachers from 60 schools.

小小家園園園園

210.79

 The "Little Environment Observer" ocean protection education activity was held.

Co-organized the "Blue Force - Ocean and Man" photo exhibition for science popularization in campus. 120 boards and over 150 pictures illustrated a beautiful scene of the harmonious coexistence of the ocean and men

浦力量・海洋

The number of Micro-blog followers broke 300,000.

> The "open class" on ocean knowledge entered primary schools to spread ocean culture.

> > The 2th "My CNOOC Dream" National Children's Painting and Calligraphy Exhibition was held and attracted over 550 employees to visit and vote within 3 days.

The first stop of the 2014 World Ocean Day & National Maritime Awareness Day activity. The 2nd "Love Warming Sun Village, Taking Hands with Jiayin County" activity allowed 10 outstanding children from the mountains visit CNOOC.

VOLUNTARY SERVICE

Voluntary service and dedication of love not only present virtue but also indicate responsibilities. In 2014, through labor unions, the Youth League committee and women's organizations, CNOOC actively engaged in various voluntary service activities, making use of different forms to provide charitable service for needy employees of the Company and social vulnerable groups. 334 volunteer activities of various forms were organized throughout the year and 10,484 employees participated in the activities.

Case: Spreading love into the deep of mountains

The Beiqu Primary School in Xinglong County and the Banbishan Primary School in Anziling Township lie in the deep of the mountains. 20 young employees of the Bohai Operation Center of CNOOC Logistics have come to the two schools to make donations to needy students 6 times in 5 consecutive years, and donated over a thousand pieces of down jackets, stationery, books, sports goods and more than RMB 90,000 Yuan, issued scholarships to more than 90 outstanding students.



Children at the Banbishan Primary School in Anziling Township



A volunteer scarfed a student

Case: "Dandelion" cares for non-resident workers' children

Yu Yingying and Fei Kejia from Changzhou Institute of CNOOC Energy Technology & Services Limited impelled their colleagues to join the "Dandelion Plan" charitable activity. They used the spare time to provide a mobile library for non-resident workers' children to do parent-child reading, integrating them into the community. In the last year, 96 reading activities were carried out, benefiting more than 300 families of non-resident workers and over 500 children.



Told stories to children



The Volunteer Service Certificate of Dandelion Project



Case: "1+1" helps poor population protect rights

The "1+1" legal volunteer program of China Legal Aid regarded "rule by law" as the core and made efforts to achieve the goal of to make all the average people can afford a lawsuit. In the past 6 years, more than a thousand volunteers were sent by CNOOC to over 500 counties under 19 provinces to practically protect the rights and interests of poor people and send fairness and justice to the West China, yielding fruitful achievements. In 2014, through this project, more lawyer volunteers were sent to counties having no lawyer or areas of lawyer shortage, to relieve the shortage of legal talents in the targeted areas.

Case: "Blue Power" holds the hands of community residents

In 2014, the CNOOC "Blue Power" youth volunteer service team proactively participated in the on-street volunteer service activities in Bohai Community, in which they not only popularized the knowledge of ocean, but also repaired household appliances for community residents. The professional repair skills and enthusiastic service attitude of the youth volunteers were well received.

The Company also organized the 3rd "Walk for Coastal Environment Protection" youth volunteer activities, in which the youth volunteers carried out a series of activities, such as picking up trash along the beach, climbing up the Shanhai Pass to advocate the marine environmental idea of and conducting charitable donation, greatly improving the awareness of social responsibility and volunteer services of the young employees of the Company.



Volunteers went to the street to explain the knowledge of crude oil for citizens.



Volunteers picked up trash along the beach.

Case: CNOOC employees contribute love to the "Home of Sunshine"

The "Home of Sunshine" orphanage located at the Minjiangli Estate, Binha New Area, Tianjin, is a public welfare institution engaged in disabled children fostering and nursing, with over 70 children of moderate and severe disability from around the country living here.

As a volunteer, Li Xiucheng, a young employee of Tianjin LNG Company of CNOOC Gas & Power Group Ltd., has organized 4 consecutive times of volunteer activities, impelling more and more employees to join the team of disabled children caring, spread love and warm the "Home of Sunshine".



Employees of Tianjin LNG Company were teaching children to draw pictures



The photo wall on the door of the "Home of Sunshine"

Case: "Jinpeng Effect" spreads positive energy

The "Good Chinese" Mao Jinpeng, an employee of CNOOC Shandong Haihua Group Co., Ltd., has selflessly helped the teenager also named Mao Jinpeng and his paralyzed father since 2004, and consequently the "Jinpeng Volunteer Team" was set up in 2012.

The continuously emerging volunteers formed the "Jinpeng Effect". 70% membership of the Volunteer Association of Weifang Binhai Economic-Technological Development Area lies on the employees of Shandong Haihua Group Co., Ltd..



CCTV reported Mao Jinpeng's deeds



2014 CSR REPORT OVERSEAS

中国海洋石油总公司 CHINA NATIONAL OFFSHORE OIL CORP.

ECONOMIC GROWTH

Development Overseas

CNOOC has completed the basic global strategic arrangement, and the ability of international operation keeps strengthening. We not only provide high-quality energy for the countries and regions in which overseas businesses are located, but also effectively promote the local economy and environment to develop harmoniously. By the end of 2014, our overseas assets accounted for 38% of the total assets and the overseas income and yield was more than 40% of the total income and yield respectively. In 2014, we concluded and signed global strategic alliance agreements with oil groups such as Shell, BP and TOTAL, and signed MOU with Gazprom and PEMEX. With the international business achieving great progress in a number of countries and regions, we rank 31st in the top 50 oil companies of PIW and 9th in the top 50 internationalized Chinese enterprises.



Signed global strategic partnership agreement with Shell

CNOOC Ltd.'s international operation approached to perfection. CNOOC Ltd. was awarded by the *Corporate Governance Asia* journal the "2014 Best CSR", "2014 Best Investor Relations Company" and the "Corporate Governance Recognition Award - Asia's Icon on Corporate Governance", ranked 12th in the Platts Top 250 Global Energy Company Rankings, 2nd in the industry breakdown of Exploration and Production and 3rd in the regional breakdown of Asia/Pacific Rim.

Key overseas exploration projects achieved substantial progress, such as natural gas was discovered in Gabon, exploration and evaluation on Brazil's world-class Libra Oilfield got preliminary achievements, laying a solid foundation for commercial development. The Company successfully entered the Arctic and was permitted to develop the Iceland exploration blocks.



The Golden Eagle development project in the North Sea with Nexen Petroleum UK was put into production.

COSL's international recognition continued growing. In 2014, with the excellent social management practices, COSL was selected as a constituent stock of the Hang Seng Corporate Sustainability Benchmark Index (76 Hong Kong-listed companies). Its brand influence and customer recognition in the international market keeps increasing, forming the overseas market layout of centering on Singapore, Dubai, Houston, Norway and impacting the Asia-Pacific region, the Middle East, the Americas and Europe. The service coverage expanded to all business of the company from a single drilling business, and the service capacity leaped substantially to deep water from shallow water. In 2014, on the basis of consolidating the Southeast Asian market, the Malaysian deepwater drilling market was opened up, and the drilling service began to enter the Indonesian market. COSL has become a qualified supplier and preferential contractor of the international oil companies such as ConocoPhillips, Husky Energy, TOTAL, Shell, BP and STATOIL. Its comprehensive ability of drilling has reached the world-class level, and the excellent performance in Mexico drove Chinese oil companies to enter the Mexican market. The platforms of COSL Innovator and COSL Pioneer were awarded by Statoil the "Platform of the Month" in the North Sea operating area.



COSL was working in the Maysan oilfield, Iraq

COOEC's international business got a major breakthrough. In 2014, COOEC initially entered the "Hang Seng China A Top 100 Index" (HSCAT 100), meaning that the outstanding performance of the company was recognized by the capital market. The basic network covering the international regions of the Southeast Asia, Africa, Europe and the United States and the Middle East took shape, and 10 overseas branches in Abu Dhabi, Canada, etc. and an international market development team with more than 160 employees were held in hand.

The number of COOEC's international orders exceeded that of the domestic orders for the first time, including the signed Myanmar Zawtika project, showing the significant improvement of EPCI contracting capacity in 2014. Substantial breakthroughs in the international business scope and capacity were made, and the company successfully signed the contract to the Russian Arctic YAMAL project, which is the first construction project of LNG core technology module undertaken by a Chinese company, and also the most difficult project in technology and an order with the largest amount of contract of COOEC to date.

CNOOC Energy Technology & Services Limited created a new era of internationalization. With the advancement of CNOOC's process of internationalization, CNOOC Energy Technology & Services Limited took overseas business expansion as an important strategic direction of development. It improved the overseas management system, set up an overseas support platform, and established the management service center for the Middle East, Asia-Pacific region, Africa, North America

and South America as well as the international department in the headquarters to uniformly allocate overseas and domestic market resources, effectively promoting the development of overseas business.

CNOOC Gas & Power Group Ltd.'s international trade was forging ahead. The purchase mode of combining long-term and spot contracts met the needs for LNG of China. The company imported 14.11 million tons of LNG annually, and signed forward contracts for a total of 4.1 million tons/year, purchased 440,000 tons of spots. The company concluded and signed a LNG cooperation agreement with TOTAL, and a 20-year LNG purchase agreement with BP; the Curtis project in Australia completed trial production successfully and the first shipment of LNG has been shipped out.

14.11

Imported LNG 14.11 million tons annually

2 The world's 2nd largest LNG

buyer

Case: Listed as one of the top 100 enterprises in Nigeria



Through 8 years of honest, complying and safe operation, CNOOC Nigeria has made itself more influential and its brand more popular in Nigeria, while having contributed actively to the tax revenue income, socioeconomic development of the country. In 2014, the company ranked 12th among the top 100 enterprises for the first time, winning accolades from Nigerian President.

Nigerian President received the winner representatives of CNOOC Nigeria

Case: Well-drilling service of COSL praised

COSL wins high appraisal from international clients on its quality, efficient work service. It has been listed by TOTAL as a qualified global supplier for such businesses as well drilling, well cementation, slurry, waste disposal, well logging and directional well, and become one of the priority global well cementation contractors of Shell. Through its outstanding performance, COSL not only strongly impresses the foreign clients with the "China speed" and "China quality", but also saves cost for the oilfield development and makes contribution to local development.



Case: EOR technology extended to Indonesia

With its EOR technology, CNOOC EnerTech-Drilling & Production Co. was awarded the polymer flooding for Well C27 of Widuri Oilfield in Indonesia, to render such EOR technical services as polymer injection, layered water injection, water plug, continuous oil pipe and chemical agents. Now it's at the stage of injecting 30 million m³ of polymer, which marks CNOOC's first such operation in overseas, and the first EOR project of Indonesia.

Complying Operation

In 2014, CNOOC sped up the preparation, distribution and training of the complying systems for foreign businesses. These works included the print and distribution of *Code of Conduct of Foreign Branches and Staff, Procurement Management Measures of Foreign Branches* and *Detailed Management Measures for Foreign Travel*. The supporting system of risk management overseas is taking the shape. The Company has joined OIL Insurance Limited, classified the risk degrees of domestic asset and international asset and optimized the insurance program, which makes the international asset more secure.

The Company actively conducts joint domestic and foreign account book auditing, effectively safeguarding its interest and right. Totally 22 accounting items have been audited, USD 43.1 million of troubled amount was exposed and USD 21.17 million therein agreed by the operators to be deleted. First management audit to Nexen, liquidation audit to CNOOC Myanmar, audit to the Australia Curtis Project and internal seminar of CNOOC Iraq were carried out.

The Company actively promotes the application of risk control and management platform to overseas, and worked hard in 2014 to build the risk control platforms for CNOOC Iraq and CNOOC Uganda and held the system training accordingly.

Case: Compliance management considered fundamental to Nexen's operation

Nexen has been working hard to raise the compliance awareness and considers the compliance management fundamental to a smooth company operation. By foster ethical, responsible and safety-oriented behaviour, Nexen has built loyalty and trust with all of the stakeholders.



Safe Production

With the expansion of overseas business, CNOOC keeps improving the necessary safety management system, timely grasps the key points of security management of overseas projects and pays attention to the important changes and potential risks during their implementation, so as to ensure their safe operation.

In 2014, CNOOC prepared and distributed the HSE management plan to CNOOC Southeast Asia, CNOOC Uganda and CNOOC Iraq, held special meeting on HSE management, at which key control items for foreign projects were specified, established mechanisms for daily HSE information communication and for personnel exchange, so as to get a real-time picture of overseas safety.

CNOOC vigorously supports Nexen's HSE management – assigning HSE experts to review the HSE management system of Nexen Britain based on the annual plan, holding annual joint emergency drill with Nexen and offering necessary aid and guide to the HSE management of different units in Nexen. Nexen has held a series of HSE campaigns, required the senior managers of visiting the operating fields periodically. In 2014, Nexen achieved a record of best HSE performance.

Case: CNOOC Nigeria achieves stable success



Management team of CNOOC Nigeria holds the round table on safety management.

CNOOC Nigeria still holds the record of zero safety accident. Located in west Africa, Nigeria is offering high challenges and rewards. The company operates in strict accordance with local laws and regulations, incorporates the concept of "people oriented" and "prevention first" into the safety management process and intensifies the training, supervision and instruction, so as to improve the staff's safety consciousness. It organizes the whole staff every year for safety emergency drill, aiming to timely identify any potential problem, make continuous summary and improvement and greatly improve the staff's safety emergency response and disposal capabilities through the scene simulation, report by levels and thorough inspection.

Case: Nexen conducts periodic rescue drill on ice

To avoid potential accident on the icy surface, Nexen specially sets up a rescue team to handle accidents caused by icy road and river, composed of Nexen staff and medical personnel who receive a themed collective professional first-aid training every week. The rescue team still prepares some necessary rescuing equipment in the portable trailer, including special tools and air bag for lifting up the vehicles, to facilitate the accident rescue work.



The ice-breaking drill starts.
Case: CNOOC Middle East puts forward the HSE management prizes

CNOOC Middle East actively carries out HSE management, and awards the staff who found, reported the HSE hidden dangers and offered good suggestions, to arouse their enthusiasm in taking part in such management. One first prize winner, 2 second prize winners and 3 third prize winners are selected every month and awarded. The implementation of such measure has greatly aroused the enthusiasm of staff and further improved the HSE management.



The Staff who gives a good recommendation is granted the award.

Case: Keeping Modules in a sterile state

GORGON Project is an international project of nature gas liquefaction factory undertaken by COOEC in Barrow Island, a level-one natural reserve in Australia. In 2014, all GORGON modules were sent to the Island for assembly. During the construction, COOEC conducted insecticide and weed control in strict accordance with the entry quarantine requirements of Australia, and carefully sterilized for inspection before the shipment of modules started. Through strict inactivation treatment, all modules reached the entry quarantine standards of Australia and were installed in a sterile manner.

Case: Perfect security management in Uganda

By reference to the laws & regulations in Uganda, international universal standards and good international operation practice (e.g., IFC, OGP, IPIECA), CNOOC Safety and Environmental Protection builds the first integrated system that covers the whole QHSE management overseas. Divided into 156 documents under 7 volumes, QHSE management system covers management, training, review, quality control, occupational health, safety protection, environment protection and emergency response, among others.

The company sets up the first overseas fire fighting crew of CNOOC in Uganda, and sends experienced fire chiefs to Uganda to guide the training of local firemen. It establishes an all-round security management system for the local owners and holds staff risk management and root analysis training; renders QHSE supervision service on site, sends totally 15 site supervisors, builds water quality testing lab, to test the quality of incoming water and outgoing water in a real-time manner, prepares emergency plan for oilfield oil spill, to render all-round oil spill emergency service.



Case: COSL Boss won a safety reward from Murphy



The COSL Boss Drilling Platform receivd a safety reward from Murphy. General Manager of Semai II Region of Murphy Indonesia thanked heartily for the successful work completion and sound HSE performance under adverse work conditions.

Technical Innovation

Through technical cooperation, innovation and integration innovation, CNOOC can render sound technical and quality service, improve the oil & gas development efficiency in the resource country, satisfy the local and state energy demand and create significant socioeconomic benefits.

Case: Reducing the cost and improving benefits by technical innovation

COSL got high evaluation for its first fracking operation in Indonesia

In May 2014, COSL completed the hydraulic fracking operation for Well NEB-75, which marks its first such operation in Indonesia. There was crude oil flowing back after the fracking, turning out a daily output higher than the client's expectation. "Under the circumstances of complicated geographical environment, long transport distance and bad well working conditions, the output is still more than expected, we can say that CNOOC should be proud of its team of technical excellence and efficient service", commended the cooperative partner.



Chinese and foreign staffs cooperate to case pipe.

CNOOC Uganda made oilfield valuation with Value Engineering

Value Engineering is designed to reliably realize the necessary functions and lift the values of products or services with min total cost, by the collective wisdom and organized activities. Kingfisher Oilfield in Uganda is the first foreign oilfield of CNOOC that applies Value Engineering. To maximize the economic value and benefit of oilfield development, CNOOC Uganda made optimal analysis of the oilfield development scheme, facilities and early study based on the ODP, carried out massive detailed CAPEX and OPEX optimization studies on the oilfield development section, drilling and completion, engineering and operation etc., and recognized 48 evaluation value opportunities, which is expected to save the cost by 10%.

Case: Nexen employee recognized as a Rising Star



Conferring prize to the winner Mohammed Al-Murayri

Thanks to groundbreaking work on innovative technologies in Nexen's Oil Sands business, professional achievements, leadership, industry contributions and community involvement, Mohammed Al-Murayri, team lead-recovery optimization was granted the honor of "Rising Star" by Oilweek, becoming one of the best and most shinning stars of the oil and natural gas industry in Canada.

As the current person in charge of the oil sands recovery optimization for Nexen. His work is focused on finding ways to reduce reliance on steam, thus reducing the need for water and fuel and in turn enhancing energy efficiency. These may be the tools that help us to be economically, environmentally and socially sustainable, and give Nexen a competitive advantage as we develop our resources.

Supply Chain Management

Logistics overseas is a lifeline for foreign oil and gas development. CNOOC actively builds a supply chain that matches an internationally-top energy company, optimizes the allocation of global resources, works hard to dredge the supply channel and optimizes the inventory subject to safe supply and compliance with international standards, so as to ensure the safe, timely and economic supply of oil & gas produced overseas.



the local cultures and customs and abides by local regulations & policies while doing its best to render the oil & gas development and production with such sound integrated logistics services as material procurement, storage and delivery, loading, unloading & reshipment, commodities inspection at customs and customs clearance, tax rebate. Without any delayed customs clearance, safety accident, malaria infection, CNOOC Logistics service earns the cooperative partners' high praise.

Case: COSL actively builds the overseas procurement center

COSL has extended its service scope to over 30 countries and regions including Australia, Mexico, Southeast Asia, Middle East, Americas and Europe. In order to cater to the fast development of overseas business, provide the clients with efficient and quality services and systematically enhance the support capability for the overseas supply chain, the company has built in Southeast Asia a procurement center functioning in procurement, storage, delivery and transport.

CNOOC Logistics Company receiving a letter of commendation from client

ENVIRONMENTAL PROTECTION

Environment Management

CNOOC upholds the policy of "nature esteemed, environment cherished", abides by the relevant laws and regulations on environmental protection of the countries and regions where the business is carried out, endeavors to mitigate the adverse impact caused to environment by energy development guided by stringent environmental protection system and sound operation practice and supplies the said countries and regions with reliable clean energy products.

Case: The purified formation water from the Curtis Project will benefit local people

The Curtis LNG Project in Australia invested by CNOOC Gas & Power Group, is the first large project to produce LNG with coalbed methane in the world. Planned to put into commercial production in 2015, the project will supply 3.6 million tons of LNG to the coastal area in China every year.

The project mainly differs from the conventional natural gas fields in that much formation water will be discharged from the development & production of coalbed methane. As required by the Australian environment authority, this formation water must be purified so as to be



Kenya water treatment plant put into production in 2013

suitably used in agriculture, animal husbandry and fishery. It's estimated that over 0.1 million tons of water will be discharged daily after the project operation starts, hence supporting infrastructure such as water-drilling monitoring well, water treatment plant pool must be built and water pipeline laid, costing about billions of US dollars, 20% of the upstream investment.

As of the 3 water treatment plants, 2 have been put into production and the third one will be completed at the beginning of 2015. All 3 plants under the service mode will provide more than 40 million tons of clean water every year, completely solving the local drought and water shortage and promoting the sustainable development of agriculture, animal husbandry and fishery.

Case: A star platform shines the Gulf of Mexico

The COSL Confidence Drilling Platform under operation in the Gulf of Mexico won the Grade I environment protection certificate, highest of its kind from the environment department of Mexican government. As this government has been highly demanding for the environment inspection, COSL upgraded the platform after



the operation contract was signed so that it was at a state of zero emission. During the whole operations, the platform strictly complied with environment standards and requirements, and the environment officers of the government, after inspecting the equipment and facilities for environmental protection, all amazed, "excellent!"

Case: Nexen determines the greenhouse gas emission reduction baseline



Determining the greenhouse gas emission reduction baseline is fundamental to effective fulfillment of the emission reduction target. Through active communication with the Canadian Government and multiple deduction and calculation, Nexen finally determined such baseline of the Long Lake Project.

Nexen states that it will endeavor to reduce the greenhouse gas emission to below 12% on the baseline.

Case: Nexen supports the water treatment technical plan of COSIA

As a member of Canada's Oil Sands Innovation Alliance (COSIA), Nexen actively supports it to build the Water Treatment Development Center (WTDC). The center is estimated to start up in 2015. As its member, Nexen will undertake the testing and commercial trial of new water recycling technology and new steam assisted gravity drainage (SAGD) technology of oil sands project, and pay partial cost of the center construction.

Biodiversity

Some foreign operation areas of CNOOC are habitats of wildlife. The Company attaches importance to the species protection and balance of ecosystem, so as to achieve win-win results in resources development and biological conservation.

Case: CNOOC Australia Exploration & Development Co., Ltd. protects the whales during operation

In Australia, one of the countries implementing the toughest environmental protection policies in the world, the 3D seismic survey and EIA must undergo the review and site supervision of marine life officers. CNOOC Australia Exploration & Development Co., Ltd. during the 3D seismic survey in Plot WA-484-P, actively cooperated with the NOPSEMA(National Offshore Petroleum Safety and Environmental Management Authority) and accepted the site supervision by the marine life officers. Although the said seismic work was conducted from March to April and the migration of blue whales and humback whales would occur from July to August, the company still invited 2 marine life officers from Britain for site supervision and instruction, and stopped the work at every 500m, worked with low power at 1,000m and observed at every 3,000m. During the 2 months of survey, while for 8 times whales and other marine mammals were encountered, no marine life was disturbed and the work was completed smoothly. In addition, the safe and efficient completion of 2,137 km² of 3D seismic survey in 41 days has also made a new record.



Case: Nexen led Algar Habitat Restoration Project wins Prestigious Emerald Award



Nexen staffs participate in the protection of reindeer habitat

Nexen actively protects the habitats of reindeer, and reclaims linear disturbances from seismic lines. Lasting 5 years, trees and shrubs are replanted in disturbed areas of the Algar Region, which covers about 570 km². Nexen's efforts were celebrated as the company received a 2014 Emerald Award which recognizes outstanding environmental initiatives.

SOCIAL PROGRESS

Staff Development

Upholding the concept of "respect, mutual trust, win-win cooperation", we are committed to promoting the intimate integration among staff of different cultural backgrounds, their blending in the locality and respecting the religious belief and customs of local staff; attach importance to the HSE, business training, career development of staff working overseas; create inclusive and fair working atmosphere of mutual trust and teamwork, so that staff of different races, peoples or countries can form a team to pursue the common goal. CNOOC now has a staff of 10,550 working overseas, among which 184 are international employees and 8,857 local employees. It pays attention to the career development of the staff working overseas and formulates long and short-term rotation training plans for different operation areas in different countries. Besides training of such professional skills as geological reservoir, development of unconventional oil & gas, human resources, finance and commerce, it still stresses the improvement of the language skill, management of international energy company and intercultural communication competence.

86%

Localization Rate of Staff Overseas

Case: The establishment of COSL's overseas personnel management and service center

In order to improve the efficiency of foreign human resources allocation, COSL has established a three-level management framework incorporating the foreign grass-root units, foreign branches and foreign personnel management and service center. This overseas personnel management and service center is responsible for: overall management of overseas staff, handling of foreign affairs certificates, studying the labor policies, laws and regulations in targeted countries and regions so as to ensure complying operation and acquire relevant HR information to employ more local staff. COSL explores to establish overseas HR management department and staff promotion mechanism, with Mexico as the trial country. The department has been operating satisfactorily since its establishment, blending more staff in locality, improving their work efficiency and loyalty and maintaining a record of zero labor lawsuits.

Case: CNOOC Uganda built staff rights & interests protection system

CNOOC Uganda fully respects the rights and interests of staff, strictly abides by the Chinese and Ugandan laws and regulations and actively learns from the best practice in staff rights & interests protection of the oil industry.

The company has established a set of staff rights & interests protection system, so that the staff can express their appeals, deliver feedback and proposals.

Staff complaint policies

To listen to the problems and dissatisfaction

the staff encountering at work, CNOOC Uganda has formulated and updated in

a periodic manner the staff complaint

policies and set up the complaint disposal

committee made up of local staff.



Chinese and Ugandan staff discussing work

Staff meeting

UNOOC Uganda holds periodic staff meeting, to discuss with them about major business progress and relevant challenges of the company, answer the questions of general concern and reward the excellent staff who perform well. Staff journal

CNOOC Uganda prepared and published a staff journal entitled Win-win Uganda, to present the Chinese and Ugandan staff with a platform for communication.

Case: Young Nexen engineer wins leading industry award

Offshore Achievements Award, a top oil and gas industry award in UK, is designed to celebrate outstanding success within the UK offshore industry, in categories which include safety innovations, new technologies, collaborative working and individual achievement.

In 2014, Raymond MacKenzie, a staff of only 26 years old from Nexen Petroleum UK Limited won the Young Professional Award. He joined and successfully completed Nexen's Engineering Graduate Programme after graduating with a Masters' degree in Electrical and Electronic Engineering from the Robert Gordon University. After spells working in subsea, facilities engineering and HSE operations, he joined Nexen's Golden Eagle Area Development (GEAD) team. As Resident/Interface Engineer he played a crucial role in the company's Contractor Team and Quality Assurance (QA) representation, managing activities on a daily and nightly basis.



Conferring Award to winner Raymond Mackenzie

Alan Blacklaw, Nexen's UK Operations Manager said: "Raymond has positively embraced Nexen's values. He has displayed remarkable courage by accepting the responsibility he was given of Resident Engineer on the GEAD project – a task that many people of a more mature age would have found challenging. By managing and coordinating a team of Nexen Contractor and their sub-contractor engineers, he has shown the confidence to speak up and make difficult decisions."

Case: A bite of home overseas



What the Chinese staff working overseas yearn for most is to get access to the meals of hometown flavors. The chefs of CNOOC Catering design the nutritional, delicious and rich meals incorporating local food material impressing the dispatched staff with strong family affection.

Learning that the staff of Mexican offshore platform are not used to the local dishes, the company immediately sent 4 experienced chefs from China to work at the staff's canteen. The Chinese dishes served enabled the staff to eat with great relish and feel at home.

In Iraq, the catering chefs successfully designed the "samak maskouf" matching the Chinese taste. Whenever served, this famous maskouf will be eaten up completely.

At the MINI camp in Uganda, the head chef actively learns how to cook local food from the Ugandan chefs, and teaches them about the Chinese food.



Overseas staff tasting delicious food

Case: Build a health great wall for staff working overseas

CNOOC Ltd. International has formulated the *Health Management Measures* and the supporting *Detailed Regulations on Occupational Health Management*, providing in details for discerning the hazard factors and protecting the occupational health, physical examination and file establishment and maintenance, medical equipment, health training, potable water and food safety among others.

The company signs agreement with SOS International and Aegon-CNOOC Life Insurance Co., Ltd., so as to protect the medical treatment and insurance rights of the staff working overseas. It establishes the tracking system of epidemic disease and infectious disease in foreign countries, timely obtains information from local health department and media, releases the information and offers necessary support. During the Ebola outburst in West Africa in 2014, the company printed



Exercise equipment provided for the staff working overseas

and distributed a series of guidance and rules for response to the epidemic, required the entering people from affected areas to make declaration, cooperate with the examination and conduct self health monitoring.

The company adopts advanced occupational health improvement concepts abroad and takes general interference measures against the staff's conducts. It requires all operation units to prepare the staff holiday and vacation systems based on the policies of relevant countries and supervise the implementation of the same; it also constantly improves the foreign working environment and staff's living conditions, and provides more suitable fitness facilities.

Case: One feels more homesick during a traditional festival, But not lonely on the foreign soil



Celebrating birthday on the platform for a young French employee



Celebrating the dragon boat festival with Thai employees



Celebrating Eid al-Fitr with Iraqi employees



Celebrating New Year's Eve with Indonesian employees

Community Development

CNOOC is committed to not only bringing more jobs and economic benefits to the countries and regions where its businesses are located, but also significantly improving the local community life. Always regarding ourselves as an important part of the local communities, we actively blend ourselves in the local life, improve the people's welfare and contribute positively to the community development.

Case: Beautiful shaven head for charity

The flight deck of Platform "Nan Hai No.6" under operation in Australia was bustling – a foreign employee named Kevin, handed a pair of sharp scissors to the colleagues surrounding him and asked each of them to cut off by turns all his braids. Soon, his head in hairstyle of Captain Jack Sparrow in the Pirates of the Caribbean was reduced into a shaven head.

Actually Kevin is a member of a local leukemia foundation. Summoned by the "shaving hair for donation 2014", the notice of which he had posted on the platform bulletin, he donated the AUD 500 collected to the foundation in the witness of the platform manager and his colleagues.



Platform Nan Hai No.6 raises donation for the children suffering from leukemia in Australia

Case: Schools built in Congo



Pupils in Congo (Brazzaville) celebrated the completion of new school buildings

CNOOC Congo allocates USD 200,000 every year for donation to the society. The company used this amount for the construction of Bernard Primary School in Mountou-Mavoungou, Congo (Brazzaville) in 2014.

On the completion ceremony of school building reconstruction, Hellot Matson Mampouya, Minister of Primary and Secondary Educationn of Congo (Brazzaville) expressed the appreciation, "We are very pleased to see that CNOOC, such an enterprise with strong sense of social responsibility comes to operate in Congo (Brazzaville). Here on behalf of the pupils and staff, I would like to extend sincere gratitude to CNOOC."

Case: CNOOC Uganda held free medical camp

CNOOC Uganda held free medical camp to over 1,400 local people in Hoima District and Kingfisher Oilfield respectively, winning favorable comments. George Bagonza Tinkamanyire, President of the district extended thanks to the Chinese doctors who saw the patients on a voluntary basis. "The people of Hoima District are good friends of the Chinese people, CNOOC Uganda working in the district has undertaken much social responsibility, I will continue to support the Chinese companies' investment in here", he said.



CNOOC Uganda held free medical camp

Special Topic: Persevering Charity, Spreading Love

As one of the first upstream companies in Canada that released the sustainable development concept and act, Nexen has been committed to developing a complete sustainable development management system, which specifies all corporate operation procedures.



The Nexen Community Investment System of "Giving-Matching-Helping"



Through charitable donation, Nexen can build an intimate relation with the local communities and satisfy the demand of stakeholders. The money shall be first used for such activities as education innovation, artistic creation, community support and environmental protection etc.

When an employee makes personal donation, the company will meanwhile donate the same amount of money to a maximum of USD 20,000/GBP 12,500 per individual, in any one calendar year.

Nexen employees volunteering a minimum of 40 hours of their personal time with a charitable organization may apply for a grant to be paid to that organization.

The Helping program provides employees (20+ hours/week) with two paid days leave annually to volunteer with local charities.

Nexen staff got prize for their active participation in United Way

On September 18, 2014, 542 Nexen staff were dressed together as the batman, breaking the Guinness world record and kicked off this year's campaign of the United Way themed "from Suits to Superheroes". In 2014, Nexen was honoured by United Way of Calgary and Area with the Award of Excellence.



Nexen staff dressed as batman for kicking off United Way Campaign

Nexen has donated Calgary University in the past 20 years

Nexen has in the past 20 years donated to Calgary University totally USD 20 million and is the university's largest corporate donor. The donation is used as scholarship for undergraduate students or to finance the research projects. In 2014, Nexen was conferred Dean's Award for Corporate Leadership by Calgary University's Schulich School of Engineering, to honor its 20 years' consistent support to the university.



Nexen sets up scholarship for young students.

Nexen recognized as one of Canada's Top 100 Employers of 2015

"Canada's Top 100 Employers" is one of the most authoritative prizes for the industry and commerce in Canada. In naming Nexen to the top 100 employers list, the company is acknowledged for its outstanding safety record over the past 12 months and its improved performance results over the past 24 months. The honor also shows that it attaches great importance to giving back to the community. The honor shows that Nexen is being recognized as an industry leader.

Nexen recognized as one of Alberta's Top 65 Employers of 2014

In naming Nexen as a Top 65 Employer, the publication praised Nexen on how "business growth, technological innovations and new discoveries are all driven by the energy and expertise of Nexen's employees. They work with managers to develop a career plan that maximizes their career prospects."



Nexen recognized as one of Canada's Top 100 Employers of 2015



Nexen recognized as one of Alberta's Top 65 Employers of 2014



"One of the greatest things about working at Nexen is the Reach Out program and the generosity the company provides in supporting the charitable activities of its employees. I use this program and the donations and matching components extensively as it provides financial assistance to the entities that I volunteer for and doubles any financial contribution that I am able to make."

- Jay Todesco, Assistant General Counsel North America Gas & Tight Oil, Nexen

Special Topic: Paying Attention to Humanistic Value in Indonesia

Indonesia is the country receiving the first foreign investment of CNOOC. Since the establishment of CNOOC Southeast Asia in 1993, CNOOC has been engaged in oil & gas industry in Indonesia for more than 20 years. As of the end of 2014, the cumulative equity output and net output of CNOOC Southeast Asia reached around 400 million barrels and over 200 million barrels of oil equivalent respectively, increasing local tax revenue of Indonesia by over USD 1.6 billion. As an corporate citizen of Indonesia, the company constantly stresses the humanistic value, actively shoulders the social responsibilities to staff, to local communities and to environment and maintains harmonious interactive communication with stakeholders.



Location of CNOOC assets in Indonesia 2014

The company incorporated the corporate social responsibility (CSR) plan into its management system and specially established the CSR department, which is responsible for formulating and implementing the CSR activity plans.



CSR Staff Development Plan

Short-term Training Plan for Local Employee

Guided by the strategy of "employing local talents first, forming an international crew", the company has in the past years held short-term trainings to local staff (27,541 from 2002 to 2014), covering computer, language, management, technique and HSE.

Number of employees attending the short-term training

Vaar	Training program category						Tabal	
rear	Computer	Language	Management	Non-technical	HSE	Technical	Total	
2002	4	38	58	313	516	600	1,529	
2003	97	37	173	268	534	606	1,715	
2004	45	15	716	315	263	275	1,629	
2005	34	15	1,224	245	110	588	2,216	
2006	361	36	167	416	747	338	2,065	
2007	24	53	52	681	529	593	1,932	
2008	112	38	378	614	1,297	293	2,732	
2009	96	121	665	142	1,315	314	2,653	
2010	26	33	255	1,413	328	389	2,444	
2011	36	-	120	830	360	438	1,784	
2012	4	1	47	1,383	581	344	2,360	
2013	9	24	110	1,215	508	741	2,607	
2014	0	32	120	1,049	313	361	1,875	
Total	848	443	4,085	8,884	7,401	5,880	27,541	

Academic Education Supporting Plan

As local employees, especially some undertaking the basic work did not receive higher educational qualifications. The company has been implementing the plan of financially aiding the staff to receive academic education since 2002, encouraging them to enhance their own professional qualities while doing the job.



Number of local employees receiving financial aid for academic education



Community Assistance Plan

Education Supporting Plan

As most community residents at the company's operation areas only received primary education, the company has formulated the following long-term and systematic educational poverty alleviation plan, to enhance their level of education:

- Offer student subsidies to the primary schools and middle schools at peripheral poverty areas
- Financially aid the further study of high school students, set up student subsidies for local universities
- Donate books, computers and stationery periodically to schools of local poverty areas
- Equip local schools with teaching facilities
- Provide the graduates with more internship opportunities since 2009

Domestic scholarship for local university students (Persons)

Veer		Total				
rear	UI	IPB	ITB	Unpad	PNJ	TOTAL
2002	51	40	50	40	14	195
2003	60	40	40	40	20	200
2004	60	41	45	39	15	200
2005	55	40	45	37	15	192
2006	58	40	45	40	17	200
2007	52	40	34	21	18	165
2008	44	27	49	15	20	155
2009	Different from prev internsh	ious, the company ip opportunities and	pays more attention I practicing their pra	to providing the gra	aduates with better betence.	





Year	Practical writing	Thesis writing	Internship	Education assitance	Total
2009	66	30	22	79	197
2010	82	36	20	131	269
2011	81	42	9	55	187
2012	67	39	13	79	198
2013	68	29	7	75	179
2014	63	33	8	84	188

In 2014, the company finished as planned the reconstruction of 2 village primary and secondary schools as well as the reconstruction of a community library, which benefits the local students.



School buildings when handed over in November 2014





Occupational Skill Training Plan

The company formulates a series of long-term re-employment training for the local laid-offs detailed as follows, under the cooperation with the marine eco-environment management department and laid-off re-training division of the Indonesian Government.

Commercial diving training plan

The company cooperates with the said marine eco-environment management department to train the Kuril Islands residents for diving and help them obtain the diving license through examination. In 2014, about 40 persons completed their professional training.



Training plan to increase the household income

The company trains the local housewives for making crafts with discarded plastics for sale, reducing the waste discharge and increasing the local people's income.



Free Medical Service Plan

The company cooperates with UNILA, a local medical college, to provide local poor community residents (600 persons annually on average) with free PE and medical diagnosis.





Environmental Protection Plan

As an offshore oil & gas producer, CNOOC has for a long time been committed to protecting the marine eco-environment of Indonesia and maintaining the biological diversity.

Project of Improving the Ecosystem on Kuril Islands

From 2007 to 2014, the company invested USD 1 million for the improvement of the eco-environment on Kuril Islands, including transplantation of coral reef, protection of mangrove forest and seaweed, treatment of domestic and industrial sewage from surrounding area.



Sea Turtle Protection Plan

CNOOC actively implements the sea turtle protection plan formulated by SPKP Bintang Laut, a non-governmental organization, including providing the local communities with multiplication facilities for sea turtle and protecting the multiplication and survival conditions for local sea turtles.



LOOKING AHEAD TO 2015

In 2015, world economy will recover slowly at a slightly faster rate. The global energy consumption will more slowly increase, and the pressure of low oil price in the international market remains in the short term.

China's economy is stepping into the "new normal" phase. The energy demand, market, policies and industry driving forces are undergoing profound changes. All-around reform to the state-owned enterprises will continue and reform measures from top management will be put forward. The road map of "Energy Revolution" will further unveil its face. The capabilities of energy efficiency, energy conservation and emission reduction will be steadily enhanced. A safe, all-round energy supply system with multiple driving wheels has taken its initial shape. The energy will enjoy higher technological content and become more competitive. Energy development will more dynamically and vigorously forge ahead and energy international cooperation will enter into a new stage. Domestic crude oil output will meet with increase in stability, but situation of supply exceeds demand in refined oil products still continues to exist. Natural gas output will continuously increase and some regions will see surplus supply. Excess production capacity in chemical product markets remains unchanged and downward trend will be continued.

Efficiently developing and utilizing the offshore oil & gas resources constitutes a main part of the strategy of "Building China into a Marine Power". Facing the serious challenges like sluggish energy demand, surging cost and resource environment constraint, CNOOC will deepen the development of system and mechanism, strengthen the Company's vitality and ensure the sustainable development of the company competence, with the safety and environmental protection as precondition, the technical innovation as driving force and the cost decreasing and benefit increasing as focus.

The Company will optimize and integrate the global oil & gas resources, give full play to its function of regional overall coordination, uphold the policy of steady development, prudent investment, attach importance to the innovation-driving strategy, intensify scientific management, do its best to dig the potential and improve efficiency, deepen internal reform and continue to consolidate the endogenous power for sustainable development. Upholding the guiding principle of "searching for medium to large-sized quality oil & gas fields", the Company promotes the efficient exploration, realizes economic and effective oil & gas field development, makes painstaking efforts to increase the economic output, accelerates the construction of large projects.

Safety and environmental protection are vital to the corporate development and shall not be violated. The Company shall lead the safety and environmental protection work seriously following the *Production Safety Law* and *Environmental Protection Law*, upholding the guideline of "safety and prevention first, comprehensive treatment" and key value concept of "safety first, environment utmost, people oriented and equipment available". It will intensify the basic management of production safety, fully regulate the safety management of basic units, actively carry out themed environment inspection, monitor the key units, eliminate the hazards of oil & gas pipelines and intensify the overseas HSE management.

We will adhere to social responsibilities of "safe and efficient operations, low carbon and green growth, putting people first, courage to innovate, charitable giving, openness and transparency". Embracing the opportunity of "One belt, one road", we will enhance the energy supply capacity, more honestly treat every stakeholder, take the lead in green development and actively accept the social supervision, to continuously enhance the Company's international competitiveness and sustainability. We will endeavor to maximize the integrated economic, environmental and social values and make contribution to a good life of all mankind with inexhaustible energy.

THIRD-PARTY ASSESSMENT

Rating Report on China National Offshore Oil Corp. Sustainability Report 2014



Upon the request of China National Offshore Oil Corporation (hereinafter "CNOOC"), CSR Research Center of Economics Division of Chinese Academy of Social Sciences (hereinafter "Center") invited experts from Chinese Expert Committee on CSR Report Rating to form a Rating Team. The rating team rated CNOOC sustainability report 2014 as follows (hereinafter "report"):

1. Rating criteria

Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 3.0) and Rating Standard on Corporate Social Responsibility Reporting for Chinese Enterprises (2014).

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2. Rating process

(1) The process assessment team interviewed members from the social responsibility department of CNOOC.

(2) The process assessment team viewed the relevant data involving the preparation of the sustainability report from CNOOC and its subordinate units.

(3) The rating team evaluates the management process of social responsibility report of CNOOC and the information disclosed by CNOOC sustainability report 2014.

3. Rating results

Process Management ($\star \star \star \star$)

The Policy Research office of the corporation takes a leading role in setting up an editorial team and the senior leaders are responsible for promoting and viewing of the report; the editorial team identifies and sorts stakeholders and consults their advices by meetings and questionnaires; The substantial issues are defined according to the stakeholders' opinions, material issues of the corporation, relevant state policies and industry benchmarking analysis; It is planned to held the special conference, and the report would be presented in printing, electronic and WeChat version. Thus, the report progress management is super excellent.

Materiality ($\star \star \star \star \star$)

The report systematically discloses key performance issues on its industries such as "Ensuring energy supply", "Intensifying safe operation", "Improving the quality management", "Emphasizing Sci-tech innovation", "Tackling climate change", "Water resource management" etc. with detailed description. The report has super excellent materiality.

Completeness $(\bigstar \bigstar \bigstar \bigstar)$

The report systematically discloses key information on "Sustainability management", "Promoting economic growth", "Enhancing environmental protection", "Driving social progress", "CSR report overseas" etc. With 77.0% of core indicators disclosed on its industries, the report has excellence completeness.

Balance ($\star \star \star \star \ddagger$)

This report discloses negative information on "recordable injury events", "employee casualties", "frequency of occupational disease", "employee turnover rate" etc. and briefly describes the scope and rectified progress of the "hazards elimination", the report has leading balance.

Comparability $(\bigstar \bigstar \bigstar \bigstar)$

This report discloses data on more than 60 key performance indicators of at least three consecutive years, including "R&D Investments", "number of employees", "environmental protection investment", and compared "crude oil production", "Yield of Natural Gas", "LNG Imports" etc. to national data. The report has super excellence comparability.

Readability (★★★☆☆)

This report has explicit theme, reasonable framework and clear logic. Pictures, tables and other vivid forms being used to complement the writing; Abundant cases have been adopted and specialized vocabulary has been explained, which markedly improved the readability. All of above makes the report leading readable.

Creativity (★★★☆☆)

The report begins with "Data of CNOOC" to highlight the performance; Adopts the "CSR report overseas" sector dealing with overseas responsibilities and performance in details for the domestic and overseas stakeholders. So the report has leading creativity.

Overall Rating $(\bigstar \bigstar \bigstar \bigstar \bigstar)$

Through evaluation and deliberations, the rating team agreed to rate China National Offshore Oil Corporation Sustainability Report 2014 as super excellent by giving five-star rating to it.

4. Suggested improvements

Disclose more core indicators of the industry to improve the completeness of the report.

Rating team

Team leader: Zhong Hongwu, Director of the Center

Team Members:

Liu Weihua, Vice Chairman of China Committee of Corporate Citizenship Chen Honghui, Professor of Economics and Management Department, Lingnan College, Sun Yat-sen University Zhai Lifeng and Wang Mengjuan, Process Evaluators of Center

Peng Huagang Chairman of the Chinese Expert Committee on CSR Report Rating Vice president of executive council of the Center

护完武

Zhong Hongwu Team leader of the expert rating team Director of the Center



GLOSSARY OF TERMS

Drilling Platform

Offshore drilling platforms are marine structures used mainly for drilling exploratory wells. Such platforms, generally divided into mobile and fixed platforms, are essential for offshore oil and gas exploration and development operations and house drilling, power, communications, navigation and other equipment, as well as lifesaving and accommodation facilities.

Recovery Ratio

Recovery ratio refers to the percentage of geological oil reserves accounted for by the amount of oil that can be extracted from oil reservoirs. This is a key criterion in evaluating the level of development of an oil field.

Reserve Replacement Ratio

As an index to reflect reserve replacement capacity, reserve replacement ratio is a ratio between the annual newly proven reserve and the reserve that has been mined and consumed in the same year.

Heavy Oil

Heavy oil is highly viscous crude oil that contains a relatively high level of asphaltenes and resins. This usually refers to those with ground densities greater than 0.943 and underground viscosities greater than 50 centipoises.

Oil Reservoir

This is the smallest unit for the storage of oil. Oil reservoir layer or oil layer in short refers to the porous strata for the storage of oil. Not every part of an oil layer will contain oil. Oil reservoir refers to those independent oil-containing areas within an oil layer.

Adjustment Well

Adjustment wells refer to scattered or clustered wells drilled, in addition to existing well clusters, for improving the development of oil fields.

Well Logging

Well logging usually refers to geophysical well loggings, in which different forms of well loggers made based on electrical, magnetic, acoustic, thermal, nuclear and other physical principles, enter wells through the use of well logging cables, to allow the ground electrical measuring instruments to record continuously along the well bore the various parameters that change with changes in depth. Underground rock formations, including oil, gas, water, and coal layers and metal deposits, can then be identified through curves representing these parameters.

Fracking

Fracking, also known as hydraulic fracturing, refers to a technique used to create fractures in the oil layer using hydraulic pressure. The process involves the use of a fracking device, to inject a large volume of viscous fluid under high pressure into the oil layer and then fill the resulting fractures with proppants such as quartz sand to increase the permeability of the oil layer and in turn, increase the amount of water injected or oil produced.

Fracking Liquid

Fracking liquid refers to the liquid used to the output of liquid ores (gas, steam, oil, fresh water, saline water, hot water, etc.) being mine with its conductance (such as hydraulic power).

Oil Spill Response

Oil spill response is the formulation of plans and adoption of measures to control and prevent oil spills and reduce pollution damage, based on the environment and resources in the potential spill sources and waters within the designated sea areas. This sees common use in offshore oil exploration and development activities.

LNG

Liquefied natural gas or LNG in short refers to the liquid that forms when natural gas extracted from gas fields cools to a low temperature under high pressure after undergoing the fluid and acid removal, drying and distillation processes. LNG is predominantly methane and is colourless, odourless, non-toxic and non-corrosive.

CDM

The Clean Development Mechanism (CDM) is a mechanism that allows both developed and developing countries that ratified the Kyoto Protocol at the Third Conference of the Parties of the United Nations Framework Convention on Climate Change, to fulfil part of their emission-reduction commitments overseas through emissions trading at project level.

Recordable Production Safety Events

According to the OSHA standards of the United States, recordable production safety events include medical treatment, work restrictions, lost time and deaths.

Occupational Disease

This refers to diseases that develop as a result of exposure to occupational hazards at work.

QHSE

The abbreviation QHSE stands for Quality, Health, Safety and Environmental. Established based on the principles of compatibility of similarities and complementarity of differences, and on the basis of the ISO 9001 and ISO 14001 standards, GB/T 28000 family of standards and SY/T 6276 Petroleum and Natural Gas Industries - Health, Safety and Environmental Management System, the QHSE management framework usually refers to the framework that directs and controls the quality, health, safety and environmental aspects of an organisation.

COD

Chemical oxygen demand or COD in short refers to the amount of oxidant consumed when treating water samples using a certain amount of strong oxidants under certain conditions. The usual use of COD is to determine the extent of contamination of water bodies by reducing substances.

Coalbed Methane

Coalbed methane, which is a coal-associated mineral resource and considered an unconventional form of natural gas, refers to a kind of hydrocarbon gas (predominantly methane) found trapped within coal beds, mainly adsorbed to the surface of coal matrix particles, and partly dispersed in the porosity of coal or dissolved in the coalbed water.

Shale Gas

Shale gas specifically refers to an unconventional form of natural gas found trapped within shale formations.

Deepwater Semi-Submersible Drilling Platform

Deepwater semi-submersible drilling platform refers to a semi-submersible drilling platform that can operate in deep waters. Semi-submersible drilling platform, also known as column-stabilised drilling platform, is a kind of mobile drilling platform with small waterplane area and a large part of the floating structure submerged under water.

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FEEDBACK FORM

In order to improve the social responsibility engagement of CNOOC on an on-going basis, we would like to hear your thoughts, which will form an important basis for us to do better. We hope that you could spare some time to give us your valuable feedback on the report and our work.

Yo	our Information:			
Na	ame: Company:			
Te	el: E-mail:			
Yo	bur Feedback:			
1.	What is your overall opinion of the report?			
	□ Very good □ Quite good □ Average □ Quite poor □ Very poor			
2.	What do you think of the information disclosed in the report?			
	□ Very abundant □ Quite abundant □ Fair □ Quite little □ Very little			
З.	What do you think of the quality of the information disclosed in the report?			
	□ Very high □ Quite high □ Average □ Quite low □ Very low			
4.	What do you think of the report structure?			
	□ Very reasonable □ Quite reasonable □ Fair □ Quite poor □ Very poor			
5.	5. What do you think of the design of the report layout?			
	□ Very reasonable □ Quite reasonable □ Fair □ Quite poor □ Very poor			

6. If you have any opinion or suggestion on the social responsibility engagement of CNOOC or the production and dissemination of our sustainability report, please feel free to let us know:

Contact Us:

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