

MCLNEWS

A Publication of Maamba Collieries Limited | July - Sept 2016 . Issue No. 16



President Lungu Inaugurates the 1st Unit of the 300MW Thermal Power Plant (TPP)

HIGHLIGHTS

MCL to set up an alternative pumping station on Lake Kariba

Zambia Chamber of Commerce and Industry (ZACCI) visits MCL

Integrity at Workplace

FATTETIS

Section A:	Executive Messages	.3
	President Lungu inaugurates the 1st Unit of the TPP	
	MCL Events	
	A glance at the SHEQ Department	
	Miscellaneous	
Section F:	Corporate Social Responsibility (CSR) Activities	3
	The second secon	

EDITORIAL TEAM

Jethro Sikalunda

Mayford Chikoya

Patrick Nalumino

Gadde Ramesh



On the cover

His Excellency the President, Mr. Edgar Chagwa Lungu inaugurating the 1st Unit of the TTP









Executive Messages



■ Mr Ashwin Devineni - Resident Director

Foreword by the Resident Director(RD)

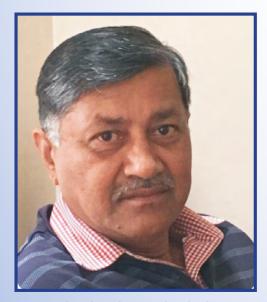
his issue of the MCL Newsletter coincides with the inauguration of the 1st Unit of the Thermal Power Plant (TPP). His Excellency the President, Mr. Edgar Chagwa Lungu, on Sunday, 7th August, 2016, inaugurated the 1st Unit (150 Mega Watts) of the 300Mega Watt Thermal Power Plant (TPP). Construction works on the 300 MW Thermal Power Plant commenced on 12th May, 2012.

The inauguration of the 1st Unit of the TPP was a delivery of promise by Nava Bharat Ventures (NBV) that had committed itself to reviving the mining operations and the setting up of a 300MW Power Plant at Maamba after successfully taking over the majority interest in MCL through a privatization process.

The TPP Project would greatly contribute to the efforts of the government in overcoming the energy deficit Zambia is facing and also save much needed foreign exchange by reducing power imports.

I therefore urge all the members of staff and the general readership that the TPP should be guarded zealously as it now forms part of Zambia's lifeline serving the electricity needs of the country.

Ndalumba kapati, Natotela sana, Dzikomo kwambiri



Rear Admiral (Retd.) Mr. Venkat Shankar - CEO

Message by the Chief Executive Officer (CEO)

The August, 2016 will go down in the history of Sinazongwe, Southern Province and Zambia as a red letter day. On this day, Maamba Collieries proudly delivered 150MW of power from its Power Plant to the Zambian National Grid. Fittingly, this event was graced by no less than HE, Mr. Edgar Chagwa Lungu, the President of the Republic of Zambia, who formally inaugurated the Plant. The generation of power from the TPP has been the culmination of four years of hectic construction activity, plethora of safety and environmental challenges, total dedication of the team at Maamba, long and often frustrating negotiations with the lenders by our Corporate Finance Team, unstinted support from our Board of Directors, and focused leadership. 'We believed' in the project and 'We Succeeded' even as some questioned its very survival and viability.

We can justifiably be proud of our achievement. I congratulate all members of the MCL Team and our contractors, NEZL, SEPCO, Suncrest and GKC SRR on this landmark achievement.



■ His Excellency the President, Mr. Edgar Chagwa Lungu inaugurating the 1st Unit of the TTP

is Excellency the President, Mr. Edgar Chagwa Lungu, on Sunday, 7th August, 2016, inaugurated the 1st Unit (150Mega Watts) of the 300Mega Watt Thermal Power Plant(TPP). His Excellency, the President, was accompanied by the First Lady Mrs. Esther Lungu, the Deputy Minister of Finance, Christopher Mvunga and other dignitaries.

The inauguration ceremony was attended by various senior Government Officials, three Royal Highnesses (Sinazongwe, Cooma and Mwenda), MCL Board of Directors, MD and Directors of ZESCO, senior officials from the private sector, senior executives from the banking sector, local community leaders, MCL staff members as well as contractors.

His Excellency, the President, delivering the inauguration speech, said that the commissioning of the Maamba Collieries Thermal Power Plant would greatly contribute to the efforts of alleviating the domestic pressures attributed to electricity supply constraints and fiscal pressures emanating from expensive electricity imports. The plant would also contribute to stabilizing the exchange rate in addition to providing the much needed jobs for the people.

Further, His Excellency, the President, encouraged MCL to quickly embark on phase II of the TPP Project so as to bring in an additional 300Mega Watts of electricity which will bring the supply to 600 Mega Watts. His Excellency



■ H.E. President, Mr. Edgar Chagwa Lungu addressing guests

also reiterated the fact that the Presidency will continue partnering with MCL in its future investment plans and ensure that projects were executed within schedule.

During the same function, MCL Board Chairman, Mr. Ashok Devineni, informed the guests that, the inauguration of the 1st Unit of the TPP was a delivery of promise by Nava Bharat Ventures (NBV) that had committed itself to reviving the mining operations and the setting up of a 300MW Power Plant at Maamba after successfully taking over the majority interest in MCL through a privatization process.

He further said that the coming on board of Maamba Thermal Power Plant would diversify the power generation sources in Zambia, which was heavily dependent on hydro power, thereby insulating the



■ MCL Board Chairman,Mr. Ashok Devineni, addressing guests country from energy shortage during the years of low rainfall.

Mr. Pius Kasolo, the CEO of ZCCM-IH, who also addressed the guests, said the commissioning of Maamba Power Plant proved some of the 'naysayers' wrong about the viability of the Project. Mr. Esau Nebwe, one of the Directors of the Company delivered the welcome address.

Zambia Chamber of Commerce and Industry

(ZACCI) visits MCL

Forty-Nine (49) member delegation from Zambia Chamber of Commerce and Industry (ZACCI) visited MCL on Thursday, 22nd September, 2016 to acquaint themselves with the investment at MCL, especially the Thermal Power Plant. The delegation was addressed by the CEO after which, a presentation on Mining, Thermal Power Plant, Resettlement Action Plan (RAP), CSR Activities and Human Resources, among others, was made before the delegation proceeded on a conducted tour of the Mine and the Thermal Power Plant.

The delegation leader, ZACCI Vice President, Mr. Sylvester Hibajene, thanked MCL for hosting the delegation and for giving an insight of the activities at MCL, especially the thermal power generation project. He said the project at MCL had a vital economic value to the nation as a whole and pledged that ZACCI would support MCL in its quest to provide power to the nation.



■ ZACCI Members during the visit to MCL

MCL Electrical Engineers

Undergo Training in High Tension (HT) Switching

n order to enhance safety for both personnel and equipment and in line with Mine Safety Department (MSD) requirements, MCL organized a training programme in HT Switching. A total of Forty Four (44) Engineers have been trained. The Engineers were drawn from both the Power Plant and the Mining Departments. An external trainer, Mr. Obed Chambeshi, who has experience in this field and works in conjunction with MSD for similar programmes, was engaged by MCL to conduct the training.

The training programme started on the 2nd of September, 2016 and concluded on 14th September, 2016. Some engineers interviewed after training stated that they appreciated the programme as it equipped them with requisite skills to handle High Tension Switching.

Golder Associates conducts its Bi – Annual RAP Monitoring

older Associates' Consultants visited MCL from 30th August, 2016 to 2nd September, 2016 to conduct the bi-annual RAP (Resettlement Action Plan) Monitoring Exercise. The team visited Mweela School, interacted with PAPs at the Resettlement Site and those living along the 330 KV DCTL.

Further, the team visited the PAPs (Project Affected Persons) who are currently undergoing training in tailoring and carpentry at Maamba Youth Project (Catholic Centre) as part of MCL's Livelihood Restoration Plan.

The team expressed satisfaction with the manner MCL had resettled the PAPs and the measures taken to improve their livelihood.

MCL sets up an alternative pumping station

on Lake Kariba

he year 2015 will probably go down the history as a year when Sinazongwe District was hit by one of the worst droughts. For the first time in the history of Maamba Collieries Limited, the Kariba Pumping Station, constructed in the late 1960s, completely ran dry much to the amazement of local people.

As the water level dipped, the pontoon, which floats on water and pumps water to the community for their daily needs, was resting on the dry lake bed, much to the dismay of the local community. The MCL Team soon swung into action and laid fresh pipelines from a point downstream where water was available. This ensured that the community and Power Plant operations did not suffer.

As the summer warms up, there is a possibility of the drought conditions returning to Sinazongwe. MCL Mining and Power Plant teams are geared up to the situation and have ensured that more permanent pumping arrangements are in place well before the area next to the pontoon runs dry.



■ Aerial view of Kariba Pumping Station affected by the drought in 2015



MCL Management with His Royal Highness Chief Sinazongwe during a community meeting at Kariba Pump Station

MCL committed to sound environmental management

CL working in conjunction with relevant Government Departments has embarked on a project of re - vegetating its coal dump sites as well as some portions along the Kariba Water Pipeline. The main purpose of the exercise is to plant and replace local tree species in areas where mining activities and other mine project related works have impacted on the vegetation.

To effectively undertake this re-vegetation exercise, MCL has been seeking guidance from technical experts in forestry management. Recently, MCL mobilized community members in Sialwala Village (near Kariba Pump Station) to collect seeds from local tree species. As a way of appreciating community members and to educate them on the value of trees, community members were paid various cash amounts for the seeds collected. Over fifty (50) kilogrammes of assorted seeds were collected. MCL, with the help of technical experts, will process the seeds and put up a nursery of various tree species.

MCL plans to involve the community in the re – vegetation exercise at various levels, for example, seed collection, seed processing, nursery management and planting. It is anticipated that the involvement of the community, will create awareness about the value of trees among the locals.



Lenders' Lawyers visit MCL

enders' Lawyers, Messrs Rousell Wells and Tom Jamieson visited MCL from 4th to 5th October, 2016 to acquaint themselves with the MCL Project. Apart from touring the Thermal Power Plant and the Mine, they visited the MCL Training Institute, Golf Club, Gymnasium Hall, Tennis Court, Maamba Private School, Maamba Youth Project (Livelihood Restoration Programmes for Project Affected Persons), Resettlement Site and Mweela School.

The duo were impressed with the MCL Project, CSR Activities being undertaken by MCL and the Livelihood Restoration Programme MCL has put in place to help project affected persons (PAPs).



■ Lenders' Lawyers (with COO, Mr. GVN and General Manager – Mining, Mr. David during the visit.

Maamba Pre School Children

Receive Assorted Toys





School Headmaster, Mr. Webster Mafuta, conferring with Mrs. Shankar after donation of assorted toys

n order to uplift learning standards at the Pre - School, MCL on 19th July, 2016, handed over assorted toys to the school management. The hand over was done by Mrs. Shankar (spouse of CEO). Mrs. Shankar informed the audience that during her first visit to the Pre School, she realized that the school was in a dire need of toys. She said the toys would help in the cognitive development of the learners.

The Headmaster, Mr. Webster Mafuta, thanked MCL for the timely donation of the learning and teaching aids and appealed to teachers to put them to good use. The ceremony was attended by staff members and parents.

PHOTO FOCUS ON THE TPP INAUGURATION











MCL's Chairman explaining to HE

MCL's Junior Engineer explaining the TPP processes to HE







HE cutting the ribbon

■ HE receiving gifts from Resident Director

■ Invited guests following proceedings







Chairman giving his presentation

HE addressing the gathering





Section D: SHEQ ISSUES

A GLANCE AT MCL SHEQ DEPARTMENT :

orkplace health and safety is at the core of any progressive organization's operation/business. And it is as important as the achievement of any other business objective. It goes without saying that all work exposes people to hazards, be they loads which have to be manually handled, dangerous machinery, toxic substances, etc.

In order to foster and nourish a healthy and safe work environment, Maamba Collieries Limited has a vibrant Safety, Health, Environment and Quality Assurance (SHEQ) department headed by SHEQ Manager Yotham Phiri who is assisted by a team of 20 departmental staff in implementing the Company's Safety, Health Environment and Quality management systems.

For MCL, attention to safety, health and environment is not only a social responsibility, but makes good business sense.

The SHEQ department operates under 4 major polices that provide the necessary guidelines in ensuring safety at the workplace;

> SAFETY AND HEALTH POLICY - MCL recognizes its responsibility to ensure a safe and healthy working environment for all its staff, visitors and contractors on site and adopts suitable practices and systems in all its operations and activities.

It has developed an occupational health and safety management system based on the requirement of HSAS 18001 standard which ensures safety and health as an integral part of our operations.

➤ ENVIRONMENTAL POLICY - MCL recognizes its responsibilities for the wider environment, its employees, contractors and the local community. The company's objective is to minimize adverse impact of the company's processes, activities and services on the environment. The SHEQ department works on a systematic approach to comply with environmental regulations, such as managing waste or air emissions all the way to helping sites reduce the company's carbon footprint.

The company's commitment to continued improvement of all aspects of environmental performance, efficient use of natural resources and aspirations to zero harm to people and the environment has manifested in the successful implementation of the environmental Policy.

- ➤ Social Policy MCL intends to maximize socio- economic opportunities and benefits for the communities in which it operates and minimize potential negative social impacts. The company ensures to comply with all applicable social legislation at local, regional and national level and international agreements to which Zambia is party. The company through the SHEQ department participates in community development, through support of local health programs and in particular malaria and HIV/AIDS prevention and treatment.
- ➤ Quality Policy MCL aims to achieve world class standards of operation and financial management in order to deliver value for all stakeholders and to meet contractual customer specification requirements through implementation of the International Quality Management Standard BS EN ISO 9001:2008.

The SHEQ department ensures that all MCL employees including contractors at all levels comply with this Quality Policy whose objectives are as follows;

- Achieve 'Preferred Supplier' status by supplying high quality coal that meets contractual requirements in every respect
- Establish mutually beneficial relationships with suppliers to enhance value addition to each other's activities. These guiding principles have seen the efficient and effective management of Health, Safety, Environment, Social and Quality impacts and risks of MCL's operations both at its Coal Mine and Power Plant site.



INTEGRITY AT WORKPLACE

By Gasper Choonya (Assistant Maintenance Mechanical Engineer - TPP-Turbine)

Have you ever wondered why?

- ► A qualified veterinary inspector certifies as fit for human consumption diseased meat products.
- ► A teacher sells and helps in cheating through exam paper leakages.
- ► A contractor uses substandard materials for a project to maximize profits.
- ► A traffic Police Officer fines a defaulter without issuing a receipt.
- ► A Human Resource Officer wants the prospective employee to "pay in kind" to get the job.
- ➤ Sales people overpromise and under deliver, just to make their quota for the month.
- ► Applicants exaggerate in job interviews just because they desperately need a job.
- Investors understate a company's value in order to negotiate a lower valuation in a deal.
- ► Customer service representatives cover up a mistake they made just to keep their client.
- A structural engineer certifies as acceptable a substandard structure just to obtain pecuniary advantage.
- An employee embezzles company property just to attend to a pressing personal immediate need.
- A medical doctor performs an illegal abortion on a school girl.
- A preacher preaches a "sloppy and soothing" sermon just to arouse giving of tithes and offering in congregants.
- ► A CEO would overstate their projected earnings just to prevent the board of directors from replacing him.

It is **integrity! Integrity!** Indeed its lack of personal integrity!!!

ntegrity means following moral convictions and doing right things in all circumstances. It is the core quality of a successful and happy life. Integrity is a state of mind and is not situational. Etymologically the word "Integrity" comes from the Latin adjective word "integer", meaning, "entire", "whole or complete" or "having the quality of being undivided".

The productivity and reputation of an organization reflects to a greater extent the integrity of its employees. Integrity plays a vital role in the tenure of one's employment and it has a lot to do in return for it. There should be no exceptions to honesty and integrity by all members of the organization, both employer and employee. It must be noted that the attainment of total organizational development is owing to the total organizational competencies and the total organizational competence is achieved if the employees serve the organization having honesty and integrity while working effectively and efficiently.

The quality of being honest involves the employees to think in the right manner and behave with integrity. It thus advocates, being loyal to the owners, being punctual to the company, adhering to the rules and regulations of the company, maintaining the timings of the company and producing the results that are expected of.

An employee who performs his duties, maintaining honesty and integrity is to be recognized as one of the best employees, while it leads him to success and to reap better results. Such a quality is always preferred and looked for in the employees, as it can lead to the attainment of those results that are intended. It is implied that an honest employee is the leading exponent of organizational goals and objectives and he can put his earnest efforts accordingly to the total organizational effectiveness competencies, and efficiencies. Employees who cheat their employers through substandard performance are lying, cheating and stealing - all at once.

The primary role of management is

to maximize production at minimum costs; a management with high integrity has half of its job done. Management integrity promotes a stable and safe work environment. When the employees know that their bosses are honest, they have a sense of job security. They know that their boss' integrity will not be shaken when tough decisions need to be made. Their bosses will "stick up" for their employees and support them. They will treat people fairly and will be more willing to share information with their employees that is necessary for them to do their jobs. For employees it means a manager or a boss that is willing to trust them with additional responsibility and growth opportunities. This makes them perform at their peak with a sense of empowerment and belonging. Management integrity promotes and instills an environment of innovation among the employees while being as open and honest as they could possibly be without fear of retribution for their ideas and opinions. Remember! With innovation comes transformation. In a high performing environment, managers with integrity are the role models for others to see and follow and form the standards for how others ought to behave.

We live in a world where integrity is not talked about nearly enough. We live in a world where "the end justifies the means" has become an acceptable school of thought for far too many. But employees are expected to be exemplary; they must gird themselves with the loins of integrity in the execution of their daily duties. It must be kept in constant view, that integrity means doing the right thing at all times and in all circumstances, whether or not anyone is watching. It takes having the courage to do the right thing, no matter what the consequences will be.

Building a reputation of integrity takes years, but it takes only a second to lose, so never allow yourself to ever do anything that would damage your integrity. Incompetence and underperformance of an employee is not always due to lack of skills, but can be a window into one's integrity deficiencies. Vices such as corruption, nepotism and bribery all

exist at workplace due to lack of integrity. It may seem like people can gain power quickly and easily if they are willing to cut corners and act without the constraints of morality. Dishonesty may provide instant gratification at the moment but it will never last. A person's dishonesty will eventually catch up. It may not be today, and it may not be for many years, but you can rest assured that, at some point, there will always be a reckoning. It is deeply saddening to see an employee lose his/her source of livelihood because he/she conducted themselves in a manner short of the company's expectation.

A word of advice to those who may wish to join the walk on the highway to integrity: Avoid those who are not trustworthy. Do not do business with them. Do not associate with them. It can be best explained by a quote I once heard: "When you lie down with dogs you get fleas." Inevitably we become more and more like the people we surround ourselves with, day to day. If we surround ourselves with people who are dishonest and willing to cut corners to get ahead, then we will surely find ourselves following a pattern of first enduring their behavior, then accepting their behavior, and finally adopting their behavior. If you want to build a reputation as a person of integrity then surround yourself with people of integrity. Dare to be a Joseph! Live a life of integrity!! Work with integrity and you will reap handsomely!!!

MCL WELCOMES THE FOLLOWING MEMBERS OF STAFF



huja Ravi has 25 years' experience in various leadership roles. He has worked in functions like Purchasing, Materials, Supplier Quality Improvement & Competitiveness. He has handled various commodities and categories in Automotive, Engineering and Services sectors. He has wide experience in Sourcing strategy and buying both materials and services.

Before joining Maamba Collieries, Ravi has worked for organizations like Eicher, Tata Cummins and Wipro Limited. His last assignment was with WIPRO, Bangalore.

He is married to Ekta, a homemaker, and has two sons, Yash and Rahul.

Ravi is a Mechanical Engineer (BE-Mech) from IIT Roorkee and Certified Purchasing Manager from ISM-USA.

He is fond of Photography and Travel. Loves to watch news and current affairs programs. Likes to listen to various kinds of music and enjoys old Bollywood songs.

He is looking forward to his assignment with MCL, Zambia, his first outside India.



AVID VIJAYAKUMAR, is a Mining engineer with 24 years of Experience in Coal and Iron ore mining. His most recent employment was with Jindal Africa as General Manager (Mining) for a large Magnetite Iron ore project in South Africa. David brings with him the experience of handling large mining projects in India, Malaysia, Indonesia, New Zealand and South Africa.

Key responsibilities across the career span include experience in spearheading Mining Operations- spanning Strategic Planning & Management, Mine Construction, Development & Operations, Exploration &

Feasibility Studies, Statutory Compliance, Liaising & Coordination, Finance & Budgeting.

David's strengths comprise strong domain knowledge coupled with hands-on experience in acquiring and developing Mining Projects, experience in heading large teams with demonstrated expertise in infusing core processes with quality & cost improvements through strategic planning & leadership.

David came on board as General Manager (Mining) at Maamba Collieries Limited on 25/08/2016.



Sachin Arora joined MCL as IT Manager. Before joining MCL he worked for Virtustream in India as Team leader where he was serving global clients for SAP projects. Prior to that, he worked for a leading FMCG company in Uganda and a multinational company in India. Before starting his career in 2004, he did his Masters in Computer Application from Punjab Technical University, India.

'Working at MCL is a great pleasure and a privilege. I am surrounded by a diverse

team, all intelligent and friendly people. At MCL there are no limitations for growth and I've always been encouraged to stretch myself, improve my knowledge and develop new skills.'

He always followed one mantra in life to stay consistent – 'Don't think about what can happen in a month. Don't think about what can happen in a year. Just focus on the 24 hours in front of you and do what you can to get closer to where you want to be.'

AND MCL WOULD LIKE TO SAY GOOD BYE TO THE FOLLOWING MEMBERS OF STAFF Mr. Lakshmi V Narayana – Chief Financial officer and Mr. Teddy A Daka – SHEQ officer

Section F: Corporate Social Responsibility (CSR) Activities

MCL Gymnasium Hall and Tennis Court get a Facelift

n an effort to promote sports development within the community, the gymnasium hall and the tennis court have received a facelift. The gymnasium hall houses a badminton court. It will also has provision for all indoor games such as table tennis, body building to mention but a few. To ensure that the facilities are put to good use and not abused, access shall strictly be by membership. The gymnasium hall, however, will be available for hire

by community members at a nominal fee. Details about membership and hire charges can be obtained from the office of the Community Services Officer, Mr. Hyden Chimense.

MCL has also sunk a borehole in the Kanzize Football Stadium to ensure that the stadium is maintained to acceptable standards.



SPORTS CORNER

Top flight football returns to Kanzinze Stadium

By Mwiinga Haamazongo

op flight football returns to Kanzinze Stadium next year following Zamcoal Diggers' impressive performance in this year's promotion campaign.

The MCL, FAZ Division 2, sponsored side won promotion after playing a total of 30 games with an incredible record of 21 wins, 7 draws, and 2 losses. The runaway FAZ Division 2 South Champions finished the league season with a terrific 70 point lead and a comfortable 12 points clear of the closest challengers, Chikuni Co – ops Football Club. Zamcoal Diggers, with arguably the strongest squad, only allowed 11 goals and scored 45 goals in the whole season.

Asked on the performance of the team, Team Manager, Albert Chishala had this to say, "I feel very excited about this achievement, the sponsor (MCL) did its part exceptionally well, as you may wish to know they fulfilled all their obligations. We played all the games. The Committee did its part, the technical bench and the players worked hard. All in all, team work was really marvelous".

As for the coming season, Chishala urges the sponsor to continue with the same spirit. He also recommends that the coaches be taken for coaching courses before the start of the next season. Top on his agenda, is the recruitment of more players to enhance competition. He hopes to bring in 3 defenders, 2 mid fielders and 2 strikers.

Kanzinze Stadium will this time around not entertain a "waya, wabwela" 'you go, you come back' kind of situation. It is

everyone's wish that the Davy Kabemba tutored side stays in Division One or even advance into the Premier League. With all the support from the sponsor and player number 12 (the fan), failure would definitely not be an option. Top flight football entertainment must stick to Kanzinze for seasons to come!



Goal Keepers: Kalusa Mulanga, ChikondiTembo, Mubila Majaluwa

Defenders: Munda Mulanga, KizitoSimupopo, Milton Simupopo, Kalumba Kaputo, Ackson Tembo, Jack Sakala

Midfieldres: Given Ndilayi, Lucky Sibalwi, Muma Mumba, Mishel Mulinda, Benson Maimisa, Mukabanga Siambombe (Captain)

Strikers: Kelvin Chongo, Oscar Chishala, Sydney Kanjengo, Bwalya Bwalya, Paul Hangumba, Macha Siamaasama, Kelvin Hamaimbo

PHOTO G

The Inaugulated plant



Aerial view of the Coal handling plant

ALLERY

















Coal Product Specifications

MCL established a modern, <u>Coal Handling and Processing Plant (CHPP)</u> which has facilitated production of washed coal of different specifications with consistent quality and eliminated pollution of nearby streams.

Product Specifications

and the second		
Washed Coal Nuts	Parameter	Min & max
	Size	+20 - 50 mm
	Inherent moisture %	1.5 - 1.9
	Total moisture %	3.0 - 9.0
THE RESERVE OF THE PARTY OF THE	Ash %	18 - 20
	Volatile Matter %	18 - 21
	Fixed Carbon %	59.1 - 60.5
The state of the s	Phosphorous % (Average)	0.0025
	Total Sulphur %	0.7 - 1.5
を記れている。	Gross Calorific Value (kcal/kg)	6294 - 6482
Washed Coal Peas	Parameter	Min & max
	Size	+10 - 20 mm
	Inherent moisture %	1.5 - 1.9
	Total moisture %	3.0 - 9.0
	Ash %	18 - 20
	Volatile Matter %	18 - 20
	Fixed Carbon %	60.1 - 60.5
	Phosphorous % (Average)	0.0025
	Total Sulphur %	0.7 - 1.5
	Gross Calorific Value (kcal/kg)	6294 - 6482
Washed Coal Fines	Parameter	Min & max
	Size	+0.5 - 10 mm
《中国的基础》	Inherent moisture %	1.5 - 1.9
	Total moisture %	5.0 - 12
	Ash %	18 - 20
	Volatile Matter %	18 - 20
	Fixed Carbon %	60.1 - 60.5
	Phosphorous % (Average)	0.0025
	Total Sulphur %	0.7 - 1.5
	Gross Calorific Value (kcal/kg)	6294 - 6482
Unwashed Coal Fines	Parameter	Min & max
	Size	+0.5 - 10 mm
	Inherent moisture %	1.0 - 1.4
	Total moisture %	5.0 - 12
	Ash %	21 - 25
	Volatile Matter %	17 - 19
	Fixed Carbon %	55 - 59.6
	Phosphorous % (Average)	0.0025
	Total Sulphur %	1.6 - 2.5
		5004 6000

Gross Calorific Value (kcal/kg)

5824 - 6200



Maamba Collieries Limited Head Office

P.O Box No.99, Maamba, Zambia For product inquiries please contact: roopesh@maambacoal.com Business Development Manager

Lusaka Office Corporate Park Plot No. 20849, Alick Nkata Road Mass Media Area P.O Box 31197, Lusaka, Zambia Tel/Fax: +260 211 256010 Tel: +260 211 258381 Mobile: +260 961 219 461 Email: sales@maambacoal.com Website: www.maambacoal.com