

KRPC



Third Edition

May, 2023

QUICK FIX NEWSLETTER

THIS IS A NEWSLETTER FOR THE KADUNA REFINING AND PETROCHEMICAL COMPANY

KRPC Commits to Safety, Goal Zero LTI

EVP DOWNSTREAM INSPECTS KRPC QUICK FIX PROJECT

Commends Progress, Reiterates NNPC Limited's Commitment
to Revamp Refineries





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Newsletter is an
in house monthly
publication by
the Corporate
Communication
Department of the
Kaduna Refining
and Petrochemical
Company Limited for
circulation to staff.***

Editor in chief

I am happy to present to you, the May Edition of KRPC Quick Fix Newsletter. This edition promises to be an exciting piece as shown in our cover page that the Executive Vice President, Downstream, NNPC Limited, Engr. Adeyemi Adetunji commended the KRPC Quick Fix progress and reiterated the Company's determination to revamp the nation's refineries when he visited to inspect ongoing works and the Plant facilities.

In an effort to upgrade KRPC to Distributed Control System (DCS) Engr. Adetunji had an engagement session with KRPC Management and Yokogawa Limited, which conducted a site survey and expected to present conceptual design proposal.

The Managing Director, Dr. Mustafa Sugungun and his Team have recorded more achievements in the ongoing Quick Fix Project and are set to deliver within schedule, quality and budget.

A highlight of some achievements and ongoing activities recorded in the Quick Fix Progress in this edition include the delivery of 40 containers of equipment to KRPC from Ikorodu warehouse in Lagos and the increased mobilization of Daewoo Engineering and Construction's (DECNL) personnel, expatriates, skilled, semi-skilled and non-skilled workers including members of host community and other Nigerians to site.

It is interesting to know that out of 34 equipment, 27 pumps, turbines, pipes, compressor are presently at KRPC warehouse and have been visually inspected while 13 tube bundles were moved to DECNL Project site and is still in progress.

As regards the overhauling of pumps in conjunction with Beamco Limited, 44 sets of pumps have been dismantled in Areas 1, 2 and 3 of the Fuels section for overhaul, 22 pumps were delivered, while the other 22 pumps are set to move to Beamco Site in Apapa, Lagos.

Moreover, the 3D scanning of Area 1, 2, 3 of Fuels Plant and Power Plant have been completed while that of Utilities and Offsite Sections is at 91% completion.

The purchase of Long Lead Items (LLI) is very critical in the Project and KRPC with the PMC-OE (NETCO) have aligned with DECNL as activities are in progress for the purchase.

Furthermore, second and third batches of scaffolding materials have been mobilized to site and new consignment is expected from China very soon while erection of Scaffolds is ongoing in Areas 1 and 3 of the Fuels Plant.

Also captured in this edition is the commendation to KRPC Management from the Paramount Ruler of the Host Community, His Highness, the Etsu Chikun, Ishaku Yari and his Council of Chiefs for impacting positively on the lives of members of the Community.

Additionally, the Managing Director, Dr. Mustafa Sugungun had a proactive engagement with the Nigerian Immigration Services, Kaduna Command and set a pace in NNPC Limited for the location of an Immigration Outpost in KRPC to facilitate the speedy process of consular and travelling approvals for expatriates of Quick Fix Project and Staff of KRPC, in order to evade the huge protocol and administrative bottlenecks of joining the general public at the Immigration Office.

Interesting pictures and stories of these activities have been captured for your reading pleasure. Please enjoy your read.

EVP DOWNSTREAM INSPECTS KRPC QUICK FIX PROJECT:

Commends Progress, Reiterates NNPC Limited's Commitment to Revamp Refineries

The Executive Vice President, Downstream, NNPC Limited, Engr. Adeyemi Adetunji has commended the efforts of KRPC Quick Fix Project Team on work progress and reiterated NNPC Limited's determination to revamp the nation's refineries.

Engr. Adetunji made the commendation during a Plant tour led by the Managing Director, KRPC, Dr. Mustafa Sugungun to inspect ongoing works and facilities at the Fuels Plant section, Power Plant and Utilities including Raw Water Intake section, Off site section and Daewoo Project Management Office.

He had an engagement session with KRPC and Daewoo Project Teams on surmounting identified challenges and strategized to execute upcoming tasks as planned in the shortest possible time for successful delivery of the project. He also engaged delegation of Yokogawa Engineering Limited in a move to upgrade the KRPC Plant from analogue to Distributed Control System (DCS).

Speaking in a meeting with the Project Teams, Engr. Adetunji spurred them to put in more efforts to achieve successful execution of the Project within schedule, budget and quality and deliver on the mandate of NNPC Limited in providing petroleum products for domestic demands and energy security.

He expressed delight at the level of mobilization of work force and equipment to site, progress of ongoing works and procurement of critical equipment, some of which have been delivered to site while others are being processed for clearance at the Port.

Engr. Adetunji spoke

passionately on restreaming the nation's refineries as he charged the Project Teams to put hands on deck to bring KRPC back to production because Nigerians and NNPC Limited would not accept excuses.

Also speaking, the Managing Director, KRPC, Dr. Mustafa Sugungun assured of his Team preparedness to deliver the Project, which he said, was apt as the need for a well-maintained and reliable operating refinery in Northern Nigeria is strategic to deliver on business mandate and harness the opportunities that abound.



The EVP, Downstream Engr. Adeyemi Adetunji inspecting the Waste Water Treatment Plant



The Manager, Rehab. Project, Engr. Effiok Akpan (R) leading the EVP, Downstream, Engr. Adeyemi Adetunji, the MD, KRPC, Dr. Mustafa Sugungun and the Team to inspect works in the Plant



The DM, Utilities, Engr. Abdulmalik Anako (r) explaining the operations of the Raw Water Intake Plant to the EVP, Downstream, Engr. Adeyemi Adetunji (middle), the MD, KRPC, Dr. Mustafa Sugungun (left)



The MD, KRPC, Dr. Mustafa Sugungun (R) explaining a point to the EVP, Downstream, Engr. Adeyemi Adetunji with the Manager, Operations, Engr. Hassan Al-amin in the Plant

Dr. Sugungun was optimistic that the Management of NNPC Limited would continue to provide necessary assistance and support for the successful delivery of the Project.

The Managing Director, Dr. Sugungun and his Team led the Executive Vice President, Engr. Adeyemi Adetunji on a tour to inspect KRPC Plant facilities and ongoing works while a detailed presentation on the activities of the Project was delivered by the Manager, Rehabilitation, Engr. Effiok Akpan.



L-R The Manager, Business Services, Ahmed Arabi Sa'ad; the EVP, Downstream, Engr. Adeyemi Adetunji; the MD, KRPC, Dr. Mustafa Sugungun; and the Deputy Manager, Utilities, Abdulmalik Anako



The Deputy Manager Fuels Plant, Engr. M.S. Haske (2nd R) explaining a point to the EVP, DS, Engr. Adeyemi Adetunji (L) the MD, KRPC, Dr. Mustafa Sugungun (R), the Manager, Rehab. Engr. Effiok Akpan

SIGHTS OF ONGOING KRPC QUICK FIX PROJECT WORKS



New Heat Exchanger Bundles from KRPC warehouse being delivered to site



First batch of dismantled pumps ready for movement to BEAMCO for overhaul



KRPC and Daewoo Project Team supervising delivery of new Heat Exchanger Bundles to site



BEAMCO Engineer working on one of the pumps



DECN Maintenance crew dismantling pumps for revamp



DECN crew dismantling pumps for overhaul

HOST COMMUNITY PARAMOUNT RULER, COUNCIL OF CHIEFS COMMEND KRPC

It was an encomium of praises from the palace of the Paramount Ruler of KRPC Host Community, the Etsu Chikun and his Council of Chiefs towards the Kaduna Refining and Petrochemical Company Limited when the Managing Director, Dr. Mustafa Sugungun and Management of Daewoo paid a courtesy visit to His Royal Highness, Mr. Ishaku Yari recently.

Dr. Sugungun and his Team were given a "GBAGYI" welcome by the Etsu Chikun and his Chiefs in Council.

His Royal Highness, Mr. Ishaku Yari was pleased and honoured to receive the the Maanging Director of KRPC and Daewoo to his palace as he expressed joy towards the great work that the KRPC has been doing in the kingdom.

Speaking on behalf of the Chiefs in Council, the Etsu Chikun, Ishaku Yari thanked the KRPC for the work done so far to the development of the Host Community especially engagement of skilled, semi skilled, unskilled workers and execution of social projects.

He expressed joy and satisfaction with what the KRPC has done for the people of Chikun Kingdom, stating that the Company has put a smile on the faces of his people by its Cooperate Social Responsibility, thereby creating advance publicity for itself.

He then offered a royal prayer that KRPC will be a Centre of excellence and the Company would grow in greater heights and advancement.

However, like Oliver twist, the Royal Father stated that they will ask for more and hoped that the KRPC would step up the community development projects on feeder roads, boreholes, rural electrification and especially employment of members of the host community.

To this, the Managing Director, Dr. Mustafa Sugungun gave him the assurance that KRPC would intervene and ensure that more positive impact are made on lives of members of the host community as stated in the memorandum of understanding.



The Etsu Chikun, Ishaku Yari (middle) the MD, KRPC, Dr. Mustafa Sugungun (R) the Executive Director, DECNL, Steve Ko (right)



A group picture of Etsu Chikun Ishaku Yari and Council of Chiefs with MD, KRPC, Dr. Mustafa Sugungun_ Executive Director, DECNL, Steve Ko with other staff of KRPC and DECNL

PHOTO NEWS OF EVP, DOWNSTREAM ENGR. ADEYEMI ADETUNJI WITH MD, KRPC, DR. MUSTAFA SUNGUNGUN AND OTHER KRPC MANAGEMENT STAFF INSPECTING DAEWOO PROJECT OFFICE



PHOTO NEWS OF EVP, DOWNSTREAM, ENGR. ADEYEMI ADETUNJI; MD, KRPC, DR. MUSTAFA SUGUNGUN AND OTHER KRPC MANAGERS INSPECTING THE POWER PLANT AND RAW WATER INTAKE



KRPC ENGAGES NIGERIA IMMIGRATION FOR SEAMLESS QUICK FIX EXPATRIATES' SERVICES

In a bid to ensure the seamless and effective consular services of expatriates for the Quick Fix Project, the Management of Kaduna Refining and Petrochemicals Company have taken a proactive step to engaged the Nigeria Immigration Services for the location of a Liaison Office within KRPC Complex.

Speaking in an official visit to the Kaduna Command of the Nigeria Immigration Services, the Managing Director, KRPC, Dr. Mustafa Sugungun intimated the State Comptroller of the expected expatriates, which mostly are Chinese from south Korea, and other foreign nationals, and to seek the collaboration of the Command towards providing immigration facilities for easy consular services to Nigeria and when the expatriates arrive.

Dr. Sugungun promised the Command an equipped Liaison Office within KRPC Complex, operational vehicle to facilitate immigration duties and adequate welfare of the Immigration Officials attached to the Office to avoid the tedious protocol of joining the general public for services at the National and State Immigration Offices.

He said the initiative would make it easy for both expatriates and KRPC Staff to access immigration services as quickly as possible.

Also speaking at the occasion, the Comptroller of Immigration Service, Kaduna State Command, Bashir M. Lawal assured the Managing Director of the Command's readiness and support toward providing effective and efficient immigration duties, proper monitoring and control, as well as other facilities that will enhance the success of the KRPC Quick Fix Maintenance Project.



The MD, KRPC, Dr. Mustafa Sugungun in a warm hand shake with the Comptroller of NIS, Kaduna State Command, Bashir M. Lawal



A group photograph of MD, KRPC, Dr. Mustafa Sugungun, other KRPC Staff with the Comptroller, NIS, Kaduna Command, Bashir M. Lawal and his Team

PHOTO NEWS OF EVP, DOWNSTREAM, ENGR. ADEYEMI ADETUNJI; MD, KRPC, DR. MUSTAFA SUGUNGUN AND OTHER KRPC MANAGEMENT STAFF INSPECTING THE FUELS PLANT AND OFF SITE SECTIONS



IN A BID TO UPGRADE THE KRPC PLANT FROM MANUAL TO DISTRIBUTED CONTROL SYSTEM, THE EVP DOWNSTREAM, ENGR ADEYEMI ADETUNJI AND THE MD, KRPC, DR. MUSTAFA SUGUNGUN; OTHER MANAGERS OF KRPC HAD A MEETING WITH THE DELEGATION OF YOKOGAWA LED BY KANISSERY SAJEEV



DISTRIBUTED CONTROL SYSTEM (DCS): KRPC MOVES TO UPGRADE CONTROL SYSTEM

By Engr. Aminu D. Ahmed, Deputy Manager, Project Control



Engr. Aminu D. Ahmed

DCS is a digital control system use to control process plants for robust and effective operations. DCS started being used in plants around 1984. Plants built around 1980 were commissioned with the then available analogue single loop control systems e.g. KRPC.

DCS has since taken over the control system sphere due to its numerous advantages over the old control systems. The experts have reiterated that "any plant operating without DCS, 40% of its control loops are under-performing" that means the plant efficiency is lower in comparison to fully automated plant, hence the importance of DCS cannot be over emphasize.

There are various manufacturers of DCS with different systems and technologies. Below is the list of notable DCS OEMs.

Emerson	Delta V
Yokogawa	CENTUM XL CS 3000 CENTUM VP
ABB	Freelance AC800F AC700F
Siemens	PCS 7
Allen Bradley	Control Logix systems

BENEFITS OF DCS

The benefits are many but the major ones are as follows;

- 1.It Increases plant efficiency
- 2.It improves productivity

3.It ensures safety

4.It reduces process variability

The above benefits are the main objectives of any process control system and DCS is leading in all perspectives.

KRPC DCS PROJECT

KRPC is the only NNPC refinery without a DCS because the plant dates back to pre-DCS era and all efforts to install one were unsuccessful in about 43 years of the plant journey. Nonetheless, the DCS is being considered in the on-going quick fix maintenance project in KRPC.

In pursuant to achieving this, the Executive Vice President, Downstream, NNPC Limited, Engr. Adeyemi Adetunji recently engaged the Management of KRPC and that of Yokogawa

Limited to discuss modalities for the upgrading of KRPC to DCS.

CONCLUSION

The legacy control system is obsolete and out of production, there is also no support from the manufacturer on the old system anymore. These reasons necessitate migration to the new control system.

DCS is the only solution for effective and efficient control of a process plant. It is worth mentioning here that robust control systems impact the bottom line (profitability) of a process plant positively.

Succinctly, the goal of the on-going quick fix project in KRPC cannot be achieved without upgrading the existing archaic and obsolete analogue control system to DCS.



Single Loop Analogue Controller



DCS system



...the pride of the nation

Our Vision

"To be the dynamic energy of choice"

Our Mission

"Reliably delivering energy while continuously creating value for all stakeholders"

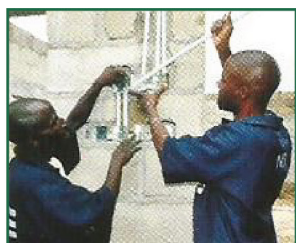
Our Core Values

Integrity, Excellence and Sustainability

Producing Raw Materials, Championing Investment Opportunities



Championing Corporate Social Responsibility



KRPC's Youth Empowerment and Skills Acquisition Programme