

COUNTY ASSEMBLY OF EMBU



Approval for Tabling

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SCA
27/11/18

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Hon. Members
Please consider approving for
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27/11/18

SECOND ASSEMBLY: FIRST SESSION

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27/11/18

REPORT OF SECTORAL COMMITTEE ON HEALTH ON
STATUS OF THE OXYGEN GENERATING PLANT IN EMBU
LEVEL- 5 HOSPITAL

SUBMITTED FOR APPROVAL BY THE ASSEMBLY

NOVEMBER 2018

①
C.C.A
For further directing
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DPLCS
27/11/2018.



DPLCS
Forwarded. P.C.
[Signature]
DPLCS
27/11/18

Tabled on 27/11/2018

Clerk's Office
County Assembly of Embu
P. O. Box 140-60100
EMBU

TABLE OF CONTENTS

ABBREVIATIONS	3
1.0 BACKGROUND	4
1.0.1 Committee Mandate	4
1.0.2 Committee Membership	5
1.2 PROBLEM STATEMENT	5
1.3 TERMS OF REFERENCE	5
1.4 METHODOLOGY	6
1.5 TOOLS OF REFERENCE	6
1.6 ACKNOWLEDGEMENT	6
COMMITTEE FINDINGS	7
2.1 BACK GROUND INFOMATION	7
2.2 SUBMISSION FROM THE CECM HEALTH ON THE OXYGEN GENERATING PLANT	8
3.0 COMMITTEE OBSERVATIONS	12
4.0 COMMITTEE RECOMMENDATIONS	14
5.0 CONCLUSION	16

ABBREVIATIONS

CECM	-	County Executive Committee Member
CEO	-	Chief Executive Officer
COK	-	Constitution of Kenya
FY	-	Financial Year
ICU	-	Intensive Care Unit
HDU	-	High Dependency Unit
KRA	-	Kenya Revenue Authority
PPP	-	Public Private Partnership

1.0 BACKGROUND

This reports emanates from the statement sought in the Assembly by Hon. Paul Muchangi Njiru seeking to establish the status of the oxygen plant, the number of qualified medical engineers and maintenance schedule of the plant.

The committee sought for responses from the CECM Health, CEO Embu level -5 and the Embu level -5 hospital Engineer regarding the issues raised in the statement. However from the submissions received and findings by the committee in addition to information sought in the Assembly the committee resolved to investigate the matter and compile a comprehensive report on the status of the oxygen generating plant since the matter was within the mandate of the committee

In order to gather information the committee requested the CECM Health to compile a report on the issues raised about this plant and invited him to make his oral and written submissions. The committee also visited Embu Level - 5 hospital to establish the actual status of the plant and also receive reports from the medical Engineer in charge of plant.

From the submissions received and committee findings done the committee retreated to compile this report for consideration by the Assembly.

1.0.1 Committee Mandate

The mandate of the Health Committee is derived from the provision of Standing Order No: 204(5), of the County Assembly Embu which defines functions of the Committee as being;

- a) Investigate, inquire into and report on all matters relating to the mandate, management activities, administration, operations and estimates of the assigned departments;
- b) Study the programme and policy objectives of the departments and the effectiveness of implementations;
- c) Study and review all County legislations referred to it;
- d) Study, assess and analyse the relative success of the department as measured by the result obtained as compared with their stated objectives;
- e) Investigate and inquire into all matters relating to assigned departments as they may deem necessary, and as may be referred to them by the County Assembly;
- f) To vet and report on all appointments where the Constitution or any law requires the County Assembly to approve, except those under Standing Order 185 (Committee on appointments)
- g) Make reports and recommendations to the County Assembly as often as possible, including recommendations of proposed legislation.

1.0 2 Committee Membership

The following are Members of the committee on Health:-

- | | | |
|--|---|-------------------|
| 1. Hon. Harrison Sammy Muturi | - | Chairperson |
| 2. Hon. Agnes Wanjiru Gakungu | - | Vice -Chairperson |
| 3. Hon. Steve Munene Mugendi | - | Member |
| 4. Hon. John Harrison Mwaluko Kising'u | - | Member |
| 5. Hon. John Ngari Mbaka | - | Member |
| 6. Hon. Edith Wanjira Nyaga | - | Member |
| 7. Hon. Patrick Rugendo Ileri | - | Member |

1.2 PROBLEM STATEMENT

In the Assembly sitting held on Thursday 9th August 2018, Hon. Paul Muchangi Njiru sought a statement from the committee on Health regarding the status of the Oxygen generating Plant in Embu Level -5 hospital. From the submissions received from the County portfolio on Health, the committee noted that the plant was commissioned in the June, 2015 at a cost of was Kshs.7,643,240 with an objective of supplying oxygen to Embu Level -5 hospital and also distributing to other Health facilities in the County. The plant has been functional and supplying medical oxygen from high pressure gas cylinders filled from the Plant until September, 2017 when the production ceased due to breakdown of the plant. Owing to the critical use of this gas in all the health facilities and the high cost of procuring the this it from other sources the committee sought to investigate the matter and compile its report for consideration by the Assembly.

1.3 TERMS OF REFERENCE

Guided by the Embu county Standing Orders, the committee sought:-

- (i) To establish the current status of the Oxygen plant in Embu Level-5 hospital
- (iii) To establish the challenges hindering the optimal operation of the oxygen generating plant
- (iv) To establish the mitigation measures put in place to address the challenges above
- (v) To make recommendation through a report for consideration by the Assembly.

1.4 METHODOLOGY

The Committee used the following methods for collect information relevant for compiling this report;

1. Held Committee meetings.
2. Received oral and written submissions from the CECM, Chief Officer and the Embu level- 5 Engineer.
3. Visited Oxygen Plant in Embu Level -5 Hospital

1.5 TOOLS OF REFERENCE

The following tools of reference were used for this report;

1. The status reports submitted to the committee by the County Executive for the Health portfolio and the Embu Level- 5 hospital Engineer
2. Copies of the requisitions, bank statements and invoices relation to expenses incurred for repairs and maintenance of the plant and other support documents.
3. Copy of the contract for supply, installation and delivery of the plant
4. Inspection reports from the Embu level-5 medical Engineer.
5. Embu County Assembly Standing Orders.
6. Embu County Government Approved budgets.

1.6 ACKNOWLEDGEMENT

The committee wishes to acknowledge the support given to it by the office of the Speaker, the office of the Clerk, team from Embu County executive from the Health portfolio and the general support of all the members of the County Assembly without which this process of compiling this report could not have been successful. The committee also wishes to appreciate everybody who may have contributed in one way or other to make the work of this committee successful.

It is therefore my pleasant duty and privilege, on behalf of the Committee on Health to present this report to the Assembly for consideration.

SIGN Harrison ----- DATE 20/11/2018 -----

HON. HARRISON SAMMY MUTURI MCA, CHAIRMAN, HEALTH COMMITTEE

2.0 COMMITTEE FINDINGS

2.1 BACK GROUND INFORMATION

1. Supply and installation of the Oxygen Plant.

The plant was supplied and installed in Embu level 5 hospital may, 2014 by Pulse Health Care Limited after being awarded the tender. The objective of this project was provide a more cost effective method of supplying oxygen gas to all Health facilities in the county and selling the excess supply. The plant was commissioned in June 2015

From the contractual agreement the cost of this plant was Kshs. **7,643,240** which was cater for the Supply, delivery and installation with a warranty of one year. There was also a sub clause in the agreement for the supplier to provide after sale service at agreeable price after the expiry of the warranty and to train the technical staff and users during the warranty period (see annex 1)

The plant has been supplying oxygen to Embu level-5 and other Health facilities from high pressure gas cylinders on request and demand basis from the date it was commissioned. However from September, 2017 the production of the gas stopped as a result of breakdown of major component which is still in the procurement process. The department has since then sought for alternative sources of this critical gas at an additional cost.

On the other hand the demand for oxygen has gradually gone up as a result of expansion of Embu level- 5 hospital and increased demand from other county health facilities. This coupled with the pipping in Wards and future plans to pipe all other critical areas where the gas is required in order to directly supply the gas informed the portfolio on Health to make request for funds to upgrade the plant. Consequently Kshs.**10, 000,000** was provided in the current approved budget for the financial year 2018/2019 in the Embu Level -5 hospital budget.

2. Budgetary allocation for the oxygen generating plant

The plant was allocated Kshs. **6,000,000** for *Installation of New Oxygen Plant* in the financial year 2015/2016 to finance supply, installation and operationalization of the oxygen generating plant in Embu level -5 hospital in the financial year 2016/2017 a pending bill of Kshs.

2,999,064 for the *Installation of Oxygen Plant* was submitted and consequently factored in the supplementary budget.

In the Financial year 2018/2019, Kshs.10, 000,000 was allocated for *Upgrading of Oxygen*. While Kshs.5, 000,000 was approved for piping in *Nyayo* and *Badea block A* Wards.

2.2 SUBMISSION FROM THE CECM HEALTH ON THE OXYGEN GENERATING PLANT

The following were the submission from the county portfolio on Health on the oxygen generating plant.

1. Contract details

- THAT, the tender to supply install and deliver the plant was advertised on 11th December 2013 installed and commissioned in June 2015. The supplier was Pulse Health Care Limited with registered office in Nairobi (see annex 1).
- THAT, the cost for the plant was Kshs.7,643,240 which was to cater for the supply delivery and installation with one year warranty. This was exclusive of the infrastructure which was provided by the hospital.

2. Location and objective

- THAT, the plant was installed in Embu Level -5 hospital with an objective of supplying oxygen gas to the hospital and other Health facilities

3. Plant description and Capacity

- The oxygen generation plant is Model 070 *Eco Filling Module* from Oxymat Denmark.
- It has four major components namely; Air Compressor, Air Cooling and Dryer Unit, Oxygen Generator, Oxygen Tank (Reservoir) and the Control Panel
- The plant generate oxygen by adsorbing nitrogen and other components from freed air and allows oxygen to fill in the cylinders automatically.
- It has a daily capacity of the plant is 72 litres per minute equivalent to 7 cylinders per day.
- In order meet the demand the electricity powered machines operates for a minimum of sixteen (16) hours a day.

4. Payments

- THAT, the contract sum of Kshs.7, 247,899 was paid in the following instalments (see annex 2-SD1)
 1. Kshs. 5,689,655 paid on 30/1/2015 payment Ref No.363632
 2. Kshs 1,558,244.85 paid on 29/10/2015 for the invoice No. 00039608.
- THAT, the supplier later claimed outstanding withholding tax of Kshs.369,339 paid to the Kenya Revenue Authority but which he claims was not refunded by the Embu County Government since the this amount was deducted at the source (see annex 2)

5. Repair and maintenance

- THAT, within the warranty period there were no repair and maintenance cost incurred. However in April 2017 the plant was serviced by the supplier at cost of Kshs. 108,000. The cost incurred was settled but the equipment functioned only for three months.
- THAT in December 2017 the supplier was engaged again to service the machine and an invoice of Kshs. 317,901 raised for the service. However the machine failed .On further assessment it was recommended that a more comprehensive service be done to air compressor at a cost of Kshs.1,346,518.
- THAT, the medical engineer after market survey and discussion with the supplier noted that that some of the components of the equipment were from different companies and recommended for the replacement of the air compressor and servicing of RIX high pressure compressor quoted at Kshs.1,481,911 and Kshs.566,379 respectively (see annex 3.)

6. Current status of Oxygen Generating Plant

- THAT, that plant has a capacity of 72 litres per minute equivalent to 7 cylinders per day. Therefore the plant cannot meet the hospital demand of 10 cylinders (of 8.5m³) daily excluding the daily demand for the other Health facility in the county when its operational
- THAT, in order to meet the demand the machine was forced to run without rest. This was overworking the machine and could have been one of the reason for the breakdown.
- THAT the capacity of this machine cannot support direct supply to patient where piping is being done to reduce the risk to patient and staff.

- THAT, due to the low capacity of the plant future demand at the hospital as result of expansion cannot be met. This is in additional to increasing demand from other County Health facilities.

7. Staff Establishment for bio-Medical Engineers

- THAT, the County has a total of One (1) bio medical engineer stationed in Embu Level 5 hospital, Thirteen bio-medical Technologist and three(3) medical technician (see Annex 4)

8. Challenges

The following were among the challenges identified;

- The increasing demand for the oxygen as result of expansion of Embu level- 5 hospital and other facilities coupled with the low capacity of the plant
- Frequent breakdown of the plant
- Delay in receiving funds for repair and maintenance of the plant after requisition.
- The equipment was assembled using parts of different manufacturers.
- Due to the low capacity the production cannot support direct supply to patients. Instead high pressure cylinders are used posing a risk to patient and staff during movement.

9. Weekly demand for medical oxygen and cost

- It was reported that the daily demand for oxygen per day in Embu level -5 is ten (10) cylinders with capacity of 8.3M³. The demand for other Health facilities is an average of two (2) cylinders per week while the average weekly demand for the ambulance is One(1) small cylinder with capacity of 1.36M³
- On average one 8.3M³ cylinder cost Kshs 2,300 while the 1.36M³ cylinder costs Kshs 700.

10. Recommendations from the department

The department recommended the following on the oxygen plant;

First option

- Replacement of the air compressor and high pressure compressor (RIX) and upgrading of reservoir to 500litre capacity.

Second option

Installation of a new oxygen generating plant.

- The department has done market survey in various hospital which have installed oxygen generating plant(*as shown in Annex -5*) From the survey it was established that the allocation in the current approved budget 2018/2019 of Kshs.10, 000,000 will not be enough to finance such a project.

Third option

Acquire new oxygen generating plant under Public Private Partnership (PPP)

- The department has identified a private partner ready to supply, install, and commission, operate and maintain and eventually transfer the plant under the private partnership PPP asset ownership program.

3.0 COMMITTEE OBSERVATIONS

From the submissions received from the county executive portfolio on Health and visits by the committee in Embu Level -5 hospital to establish the actual status of the oxygen generating plant., the committee made the following observations;

1. **THAT**, the oxygen generating plant was supplied, installed and commissioned as per the terms of contract. The contract price was paid according to the agreement. There was a clause providing for one year warranty. During this period there were no repairs and maintenance cost incurred. The contract also provided for after sale service at agreeable price upon the expiry of the warranty and to train the technical staff and users during the warranty period.
2. **THAT**, the supplier had laid claim from the County Government of Kshs.369, 339 being withholding tax arrears not submitted to K.RA. However it was observed that the whole contract sum of Kshs. 7,643,240 was paid less withholding tax of Kshs.369, 339 which the county was to submit to KRA. However there was no evidence on any claim by KRA from the supplier (*See annex 6*)
3. **THAT**, the plant has not been operating since September 2017 .This was occasioned by breakdown of key component of the plant. The plant was serviced in April 2017 at a cost of Kshs 108, 000 worked for only three months and then broke down. The department had made requisition on 15th,May 2018 for the funds required for the procurement of the key components and servicing which had not yet been received by the time of compiling this report. (*See annex 3 and 7*)
4. **THAT** the current oxygen generating plant was serviceable hence replacement of the air compressor and high pressure compressor (RIX) and upgrading of reservoir to 500 litre capacity were necessary for the plant to resume generating oxygen.
5. **THAT**, there was no evidence of regular servicing of the plant since there was no repair and maintenance schedule for the oxygen generating plant submitted to the committee despite the request from the committee although it was reported that the plant is regularly maintained by the bio medical engineering technologists trained by the supplier.
6. **THAT**, in the current approved budget for the financial year 2018/2019 for the repair and maintenance of plants and equipment was Kshs.3, 000,000. This allocation is not sufficient to cater for all repair and maintenance of equipment in Embu level -5. For example one off

serving of CT-Scan machine requires an average of 5M while the approximately Kshs.2 048,290 is required to procure the spare parts for the Oxygen plant.

7. **THAT**, the hospital does not have enough qualified personnel to handle the repairs and maintenance on the all the medical equipment including the oxygen generation plant.

8. **THAT**, the pipping has already been done in Nyayo wards and was still in progress in the newly constructed Badea wards. However it was noted that the piping should be done to all Wards, ICU, HDU, Theatres and other critical areas in the hospital

9. **THAT**, from the time the plant was installed and commissioned the bed capacity in the Wards has increased. Currently the capacity is five hundred and sixty (560) and expected to increase further with completion of the new Badea wards. This will therefore push the demand for oxygen up beyond the capacity of the plant. In addition to this other Health facilities demand for oxygen gas is expected to raise.

10. **THAT**, the hospital has no back -up for the supply of the oxygen, upon the completion of piping and direct supply of oxygen it would be necessary to install a backup in line with ISO:10083:2006 standards.

11. **THAT**, from the department recommendations “second option” Kshs.10,000,000 was approved in the budget for upgrade of the oxygen plant. The department proposed to use this budgetary allocation to procure a new plant. However from the market survey (*Annex 5*) this allocation is not enough to procure and install a plant that can meet the demand for oxygen in the county.

12. **THAT**, from the department recommendations *third option*, (in page 11 of this report) supply, installation and delivery of the plant through the public private partnership, it was observed that options seem more expensive and difficult to implement taking into consideration the condition set by the partner.

13. **THAT**, weekly demand of oxygen in Embu level -5 hospital and other Health facilities is seventy two (72) cylinders of 8.3M³ and one (1) 1.36M³ cylinder at an approximately cost of Kshs.166,300 per week and which translates to Kshs 8,647,600 annually.

14. **THAT**, the projected annual cost of procuring oxygen is way above the cost of servicing and repairing the oxygen generating plant. Therefore it will be more economical to fast track the repairs of the plant to save on this cost.

4.0 COMMITTEE RECOMMENDATIONS

The Committee has made the following recommendations;

1. **THAT**, the CECM Health fast-tracks requisition for the funds for the servicing of the plant including funds for procurement of the air compressor, high pressure compressor (RIX) and upgrading of reservoir to 500 litre capacity for the plant to resume generating oxygen and ensure that the plant resume its operation by at least the end of December, 2018.
2. **THAT**, the Chief Officer Health follows up the matter of payment of withholding tax of Kshs 369,339 to ascertain its validity or otherwise (see annex 11).
3. **THAT**, the CECM Health ensures that there is enough budgetary allocation for the repair and maintenance of the oxygen plant and other medical equipment in the next Embu county supplementary budget for the financial year 2018/2019 and subsequent budgets.
4. **THAT** the CECM Health ensure that the oxygen generating plant is regularly repaired and keeps in record a schedule of repair and maintenance for the oxygen plant and other medical equipment and also ensures that the county has enough qualified bio-medical engineering technologists to service all the medical equipment in the County.
5. **THAT**, the CECM Health ensure that there is enough budgetary allocation for pipping in all the Wards, Intensive Care Unit, High Dependency Unit, Theatres and other critical areas in the hospital in the next Embu county supplementary budget for the financial year 2018/2019.
6. **THAT**, the current allocation in the approved budget for the financial year 2018/2019 for the procurement of a new oxygen generating plant of Kshs.10, 000,000 be enhanced in the next Embu county supplementary budget for the financial year 2018/2019 to fully finance the supply, installation and delivery of a new oxygen plant with capacity of 256-270 litres per minute with a *double* output line in order to provide for a back-up supply in line with ISO: 10083:2006 standards.
7. **THAT**, after installation and commissioning of the new plant, the CECM considers relocating the old plant to a more central level-4 hospital to minimize the cost of supplying the gas to other health facilities in the county and further provide a budgetary allocation for infrastructure and installation of the plant in future budget.
8. **THAT**, the CECM considers including a clause in the contract to enable the supplier to provide a renewable after sale servicing of the plant for at least five years upon the expiry

of the warranty at an appropriate and reasonable cost agreeable by the procuring entity and to include sub-clause to train the bio-medical Engineers and users.

9. **THAT**, the proposal to procure the plant through the Public Private Partnership (PPP) be shelved in favour of more feasible “second option” as in recommendation number 6.

5.0 CONCLUSION

The recommendations in this report were agreed upon by the members of the Committee without any dissenting opinion and members consequently appended their signatures to the report as a confirmation of the same. The Committee therefore urges this County Assembly to adopt this report.

- | | | | |
|-------------------------------|---|-----------------------|---|
| 1. Hon. Agnes Wanjiru Gakungu | - | Vice Chairperson..... |  |
| 2. Hon. John Ngari Mbaka | - | Member |  |
| 3. Hon. Steve Munene Mugendi | - | Member |  |
| 4. Hon. Harrison Mwaluko | - | Member |  |
| 5. Hon. Patrick Rugendo Ileri | - | Member |  |
| 6. Hon. Edith Wanjira Nyaga | - | Member |  |

SIGNED..........DATE.....20/11/2018.....

HON. SAMMY HARRISON MUTURI
CHAIRPERSON, COMMITTEE ON HEALTH

108

CONTRACTTENDER NO. EMBU/PGH/26/2013 - 2014TENDER NAME - SUPPLY AND DELIVERY OF OXYGEN GENERATING PLANT

THIS AGREEMENT made on the 11th day of June 2014, between **Embu Level Five Hospital**, P.O. Box 33-60100 Embu, (herein after called "the Procuring entity") of the one part and **M/S Pulse Healthcare Limited**, P.O. Box 26673-00504 Nairobi (herein after called "the tenderer") of the other part;

WHEREAS the Procuring entity invited tenders for the Supply, Delivery & Installation of an Oxygen Plant (Model 070 Eco with Filling Module from Oxymat Denmark) and has accepted a tender by the tenderer for the supply of those goods in the sum of (Ksh 7,643,240) - Kenyan Shillings Seven Million, Six Hundred and Fourty Three, Two Hundred & Fourty Only. (Herein after called "the Contract Price")

The Tenderer hereby covenants to provide a warranty for a period of ONE YEAR. The Tenderer also covenants to provide After Sales Service when the warranty period expires, by accepting a service contract at a price agreeable to the Procuring Entity.

The Tenderer also covenants to install the equipment and train both technical and users during the warranty period free of charge.

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to:
2. The following documents shall be deemed to form and be read and construed as part of this Agreement viz:
 - a) The Tender Form and the Price Schedule submitted by the tenderer
 - b) The Schedule of Requirements
 - c) The Technical Specifications
 - d) The General Conditions of Contract
 - e) The Special Conditions of Contract; and
 - f) The Procuring entity's Notification of Award
3. In consideration of the payments to be made by the Procuring entity to the tenderer as herein after mentioned, the tender hereby covenants with the Procuring entity to provide the goods and to remedy defects therein in conformity in all respects with the provisions of the Contract
4. The Procuring entity hereby covenants to pay the tenderer in consideration of the provisions of the goods and services as outlined below:

[Handwritten signature]

[Handwritten signature]





- Advance payment of Ksh. 6,000,000.00 (Kenyan Shillings Six Million) upon signing of Contract
- Balance payment of Ksh. 1,643,240 (Kenyan Shillings One Million, Six Hundred Fourty Three, Two Hundred and Fourty) upon delivery, installation and successful commissioning of goods supplied

IN WITNESS whereof the Parties hereto have caused this Agreement to be executed in accordance with their respective laws the day and year first above written.

DR NDIRITU G. MEDICAL SUPERINTENDENT

Signed, sealed, delivered by.....the..... (For the Procuring entity)

In the presence of.....



Signed, sealed, delivered by CYRUS WANJAU the..... (For the tenderer)

In the presence of.....

Cyrus Wanjau

S D I

Annex II



CHIEF EXECUTIVE OFFICER
 EMBU LEVEL 5 HOSPITAL
 P. O. Box 33 EMBU
 Tel • 068 - 2231055 / 56
 Email : ceoembulevel5@gmail.com

Statement

Embu Provincial General Hospital
 P.O. Box 33, 60100
 Embu

Date	16/11/2017
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Amount Due
KES 369,339.95

Date	Description	Amount	Balance
31/12/2014	Balance forward		0.00
03/02/2015	PMT Receipt No. 1753 for Invoice No. PHL00038910	-5,689,655.20	-5,689,655.20
04/02/2015	INV #PHL00039439. Due 04/02/2015.	317,500.00	-5,372,155.20
01/03/2015	INV #PHL00038910. Due 01/03/2015.	6,000,000.00	627,844.80
10/03/2015	CREDNOTE #PHL39439.	-26,000.00	601,844.80
05/06/2015	INV #PHL00039608. Due 05/06/2015.	1,643,240.00	2,245,084.80
10/07/2015	PMT #256. Receipt No. for Invoice No. PHL00039439	-317,500.00	1,927,584.80
02/11/2015	PMT Receipt No. 2227, for Invoice No. PHL00039608	-1,558,244.85	369,339.95

Current	1-30 Days Past Due	31-60 Days Past Due	61-90 Days Past Due	Over 90 Days Past Due	Amount Due
0.00	0.00	0.00	0.00	369,339.95	KES 369,339.95

Please issue a cheque payable to " PULSE HEALTHCARE LTD"





SDI

CHIEF EXECUTIVE OFFICER
 EMBU LEVEL 5 HOSPITAL
 P. O. Box 33 EMBU
 Tel: 068 - 2231155 / 56
 Email: ceoembulevel5@kebs.or.ke

Statement

Embu County Health services

Date	25-Apr-2018
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Amount Due
KES 317,901.68

Date	Description	Amount	Balance
31-12-2015	Balance forward		0.00
27-04-2017	INV #PHL00050092. Due 27-04-2017.	108,000.00	108,000.00
11-12-2017	GENJRNL #payment. payment received	-102,413.80	5,586.20
20-12-2017	INV #PHL00050343. Due 20-12-2017.	317,901.48	323,487.68
24-01-2018	GENJRNL #Embu County. VAT Withheld - 15836060	-5,586.00	317,901.68

Current	1-30 Days Past Due	31-60 Days Past Due	61-90 Days Past Due	Over 90 Days Past Due	Amount Due
0.00	0.00	0.00	0.00	317,901.68	KES 317,901.68

Please issue a cheque payable to " PULSE HEALTHCARE LTD"



EMBU LEVEL 5 OXYGEN GENERATING PLANT**1. Contact details of the contractor engaged in supply and maintenance of oxygen plant**

Pulse Health Care Limited
 P.O Box 26673
 Nairobi Kenya
 Email: info@pulsehealthcarekenya
 Website: www.pulsehealthcarekenya.com

2. Payments

	DESCRIPTION	AMOUNT 9(ksh)	BALANCE (ksh)	REMARK
1	Non-Submitted 6% withholding tax	369,339	369,339	Outstanding since 2015
2	service	108,000	nil	
3	service	317,901	317,901	Outstanding since Dec 2017

(See support document SD1)

3 .Measures taken to ensure the old Oxygen plant is operational

On 27th April 2017 plant was serviced at cost of ksh 108,000 by the supplier and it worked for 3 months and failed again .the company was engaged in December where they serviced at cost of 317,901 and the machine did not work and recommended for a more comprehensive service to air compressor, at cost of ksh 1,346,518. (See support document SD1 and SD3)

On market survey and further discussion with the company ,the Engineer recommended for replacement of the air compressor and service of RIX high pressure compressor which they quoted for ksh 1,481,911.60 and ksh 566,379.28 respectively. (See support document SD4)

Action

Requisition has been made on procurement (See support document SD2)

4. Proposed Oxygen plant**Current Situation of Oxygen Generating Plant**

1. The oxygen generating plant has a capacity of 72 liters per min which is equivalent to 7 cylinders per day. This implies that the plant cannot meet the hospital demand of 10 cylinders (of 8.5m³) every day let alone that of other health facility in the county. The machine run without rest hence its frequent brake down.
2. The equipment is of one line machine which means it lack backup system in case of failure. This is not in line with ISO 10083:2006 standards.
3. Its low capacity cannot support direct supply to patient where piping has already been done hence the use of high pressure cylinders posing a risk to patient and staff during movement.
4. The equipment cannot handle future expansion of bed capacity in the hospital and other county health facilities

Recommended equipment

- **Capacity** - 900-1200ltrs/min
- **Backup system** –Two line back up system in line with ISO 10083:2006 standards

Way forward

There is an allocation of Ksh 10,000,000 for upgrade of oxygen generating plant in the financial year 2018/2019, acquiring the new plant can be done through;

Option 1. Purchase a new higher capacity oxygen generating plant.

The hospital is undertaking market survey to different suppliers.eg

1. Pulse healthcare ltd P.o box 26673 Nairobi off Lenana road- previous contractor
2. Atlas Copco –international company
3. MediQuip Global ltd P.o box 34005 Nairobi, installed in Nakuru PGH
4. Pharmaken ltd P.o box 95625 -80106 Mombasa installed in Machakos level 5 hospital

Option 2. Acquire under the Private Public Partnership (PPP) asset ownership program.

The hospital management has held a discussion with among others **O2 International ltd of P. O. Box 47885 – 00100 GPO Nairobi, Kenya** who are ready to Supply, Install, Commission, Operate, and Maintain and eventually Transfer the Oxygen Generating Plants to the hospitals under the Private public partnership (PPP) asset ownership transfer proposition

THE PACKAGE OFFER

The company has the following package

- Large capacity Atlas Copco/Beacon Medaes Oxygen generating plant;
- Piping to ICU, HDU, Theatre, Maternity, other critical patient areas; and Service and Maintenance by Atlas Copco
- Plant placement for a period of 5 years;
- Cost of plant and maintenance recouped through payment of oxygen consumed in the hospital in the 5 years placement period;
- Oxygen consumed charged at a discounted rate of up to 25% of prevailing market rates;
- Transfer of Oxygen plant ownership to the hospital after the 5 years contractual period;
- Optional contractual agreement for service and maintain from year 6.

Staff Establishment for Bio-Medical Engineers in Embu County

	Hospital Name	Term of service	Medical Engineers	Medical Engineering Technologist	Medical Engineering Technician	Sub Total
1	Embu Level 5 Hospital	P&P	1	6	2	9
		Contract	0	0	0	0
2	Ishiara Level 4 Hospital	P&P	0	2	0	2
		Contract	0	1	0	1
3	Runyenjes Level 4 Hospital	P&P	0	0	1	1
		Contract	0	1	0	1
4	Kiritiri Level 4 Hospital	P&P	0	1	0	1
		Contract	0	0	0	0
5	Siakago Level 4 Hospital	P&P	0	2	0	2
	GRAND TOTAL		1	13	3	17

Current Situation of Oxygen Generating Plant

Oxygen generating plant is not functional

Faults

Complete Failure of major component i.e. air compressor and RIX compressor

Challenges

- The oxygen generating plant has a capacity of 72 liters per min which is equivalent to 7 cylinders per day. This implies that the plant cannot meet the hospital demand of 10 cylinders (of 8.5m³) every day let alone that of other health facility in the county. The machine run without rest hence its frequent brake down.
- The equipment was assembled using parts from different manufacturers.
- Its low capacity cannot support direct supply to patient where piping has already been done hence the use of high pressure cylinders posing a risk to patient and staff during movement.
- The equipment cannot handle future expansion of bed capacity in the hospital and other county health facilities
- The supplier claim to have not been paid ksh 3,000,000 deducted asin the previous contract.

Maintenance schedule

- There was no service contract signed with suppliers at procurement stages
- The supplier is engaged through quotation to perform services
- General planed preventive maintenance are done by hospital bio-medical engineering technologist

Way forward

- There is an allocation of KSH 10M for purchase of a new high capacity oxygen plant in 2018-2019 financial year
- Repair of the existing plant by replacement of major component is in procurement stages and will act as stand by plant.
- Ensuring provision of a service contract in the tender document

Market Survey

The hospital is undertaking market survey to various hospitals who have installed their plant and filled the following report.

	Name of Facility	Bed Capacity	Size of Plant & Type	Output Line	Mode of Distribution	Cost of Plant	Cost of Infrastructure	Total	Remark
1	Embu Level 5 Hospital	527	72-80 l/min oxyymat	single	cylinders	7,643,240	inclusive	7,643,240	Installation done in 2014
2	Machacos Hospital	500	256-270l/min oxywise	single	cylinders and Via manifold	34,000,000	1,000,000	35,000,000	Installation done in 2018
3	Makueni Hospital	160	72-90 l/min oxyymat	single	cylinders and Via manifold	13,000,000	inclusive	13,000,000	Supply to county facility only
4	Mama Lucy Hospital	120	256-270 l/M oxywise	double	Cylinders, Via manifold and directs	34,000,000	16,000,000	50,000,000	Installation done in 2018 Netherlands made Sell oxygen
5	Nakuru PGH	1000	400-600 airsep	single	Cylinders	50,000,000	20,000,000	70,000,000	Installation done in 2018 Netherlands made
6	Siaya County Ref Hospital	200	350-420 airsep	single	cylinders and Via manifold	22,000,000	8,000,000	30,000,000	Installation done in 2014
7	Meru Level 5 Hospital	358	90-99L/M oxywing	single	cylinders and Via manifold	30,000,000	inclusive	30,000,000	Installation done in 2014 Italy made
8	Kakamega county hospital	400	204-230l/m Oxywing	single	cylinders and Via manifold	30,000,000	inclusive	30,000,000	Installation done in 2011 Netherlands made
9	Muranga county referral hospital	250	90-120l/m oxyymat	single	Cylinders	13,000,000	inclusive	13,000,000	Installation done in 2016 Netherlands made
10	Nyeri PGH	250	250l/min	Single	cylinders and Via manifold	30,000,000	inclusive	30,000,000	Installation done in 2011 Netherlands made

The following firms were found to have supplied to some of above named hospitals

1. Pulse healthcare ltd P.o box 26673 Nairobi off Lenana road- previous contractor
2. Atlas Copco -international company
3. MediQuip Global Ltd P.o box 34005 Nairobi, installed in Nakuru PGI
4. Pharmaken ltd P.o box 95625 -80106 Mombasa installed in Machakos level 5 hospital

Way forward

Purchase a new higher capacity oxygen generating plant.

Conclusion

The survey reveals that the hospital require additional funds to the proposed ksh 10,000,000 in the 2018/2019 budget for purchase of new oxygen plant.

Recommended equipment

- Capacity - 900-1200lts/min
- Backup system -Two line back up system in line with ISO 10083:2006 standards

CHIEF EXECUTIVE OFFICER

EMBU LEVEL 5 HOSPITAL,

P.O. BOX 33 EMBU

TEL: 068-2231025 / 56

Email: general@level5@gmail.com


BY PRICIPAL MEDICAL ENGINEER
FOR .CHIEF EXECUTIVE OFFICER
EMBU LEVEL 5 HOSPITAL

582/10
 40733 Annex 6
 736
 Receipt No 56
 30/10/2015

REPUBLIC OF KENYA
PAYMENT VOUCHER
 (VOTED PROVISION)

Payee's Name and Address: **PULSE HEALTH CARE LIMITED P.O BOX 266723-00504 NAIROBI**

Particulars	LPO NO.	Invoice NO	Amount
Being payment of Oxygen Generating plant supplied to Embu level 5 Hospital as per the attached LPO and Invoice.	23219/2090402	Supplier PHL00016608	1,558,240.85
			1,643,240.00
		W/Tax	84,995.15

Shillings: **One Million Six Hundred and Forty Three Thousand Two Hundred and Forty.**

Authority Reference NO.

EXAMINATION
 Voucher Examined by...
 Date...
VBC CERTIFICATE
 I certify that the expenditure has been entered in the Vote Book And that adequate fund to cover it is available against the charge-able Item as shown below.
 Approved Estimates/Allocation-----
 Item NO. 3110504 Ksh. 1,643,240.00
 Less: Total expenditure plus comments
 Ksh. Nil
 Balance 3,574,000
 Ksh.
 Less: This ENTRY ---ch.
 NO. 1 Ksh. 1,643,240

Internal Audit
 AIE HOLDER CERTIFICATE
 I certify that the expenditure detailed above has been incurred for the authorized purpose and should be charged to the Item shown below.
 Signature
 Date 12/08/15
 Designation of A.I.E Holder
 MEDICAL SUPERVISOR
 EMBU LEVEL 5 HOSPITAL
 P. O. Box 33-600
 Embu, Kenya
 Tel: 00254-2220700 / 2220710

AUTHORIZATION
 I certify that the rate/price charged is/are according to regulation/contract, fair and reasonable, that the expenditure has been incurred in proper authority and should be charged as under. Where appropriate a certificate overleaf has been completed. I hereby **AUTHORIZE** payment of the amount shown above without any alteration.
 Signature
 Accounting Officer/District Accountant
 Date

Balance ----- Ksh. 31,930,760
 Date 7/10/2015 Signature Adal

Accountant i/c VBC		Source of Funding		Sub-Programme		Geographical code:	
Vote/ Administrative						3110504	
A.I.E NO.	Account	Dept. Vch NO.	Station			Amount	Cts
2014/15		1580301015	8086			1,643,240	00

AP 30/10/15
 - Delivery note

Principal in Charge

MINISTRY OF HEALTH

-31055/Fax:30706
 h@winnet.co.ke
 MED.SUPT. EMBU
 mg.pls quote our reference



OFFICE OF THE
 MEDICAL SUPERINTENDENT,
 PROVINCIAL GENERAL HOSPITAL,
 P.O BOX 33,
 EMBU.

DATE 9.6.15

NO. 351

INSPECTION AND ACCEPTANCE REPORT

The inspection and acceptance Committee inspected and accepted/Rejected goods/services delivered under LPO/LSO NOS. 209042 & 2321910 INV NO 00039608

Pulse Healthcare Ltd

NO	ITEMS DESCRIPTION	UNIT	QTY	UNIT PRICE	VALUE	REMARKS
3	Oxygen Generating Plant	NO	1	7643240	7643240	
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
16					7643240	
17						

MEMBERS PRESENT

NO	NAME	DESIGNATION	SIGNATURE
1.	Margaret Njeri	MET	
2.	Felister Mwangi	SND	
3.	James Njagi	SHPO	
4.			
5.			

NB: In case of a rejection indicate the reasons for doing so.

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ANNEX 6

Payments

Close Window Preferences

Navigator Favorites

Home Templates Payment Process Requests Payment Instructions Payments

Payment Process Requests > Payment Process Request: EMBU30012015/FIN/1

Rejected and Removed Items

Status Completed
Failed Payments 0

Source Product Reference EMBU30012015/FIN/1
Related Payment Instructions 1

Submission Details

Product Payables
Date 30-Jan-2015
User KISISYOR

Payment Process Profile GOK_EFT
Internal Bank Account DEVELOPMENT BANK_EMBU
Process Type Standard

Additional Information

Payment and Document Summary

Currency Code	Currency Name	Payments	Documents	Total Amount
KES	Kenyan Shilling	12	12	11,773,183.40
		Total 12	12	

Payments

Previous 1-10 Next 10

Organization		Trading Partner		Payee		Payment Reference Number		Paper Document Number		Amount Curr Date	
Embu - Finance and Planning Unit	Operating Unit	POPCORN CONSTRUCTION CO. LTD	POPCORN CONSTRUCTION CO. LTD	POPCORN CONSTRUCTION CO. LTD	POPCORN CONSTRUCTION CO. LTD	363633	363633	10000343	10000343	935,917.30	KES 30-Jan-2015
Embu - Finance and Planning Unit	Operating Unit	PULSE HEALTHCARE LIMITED	PULSE HEALTHCARE LIMITED	PULSE HEALTHCARE LIMITED	PULSE HEALTHCARE LIMITED	363632	363632	10000342	10000342	5,689,655.20	KES 30-Jan-2015



Payment Process Request

Operating Unit	JIMA 345 INVESTMENTS	JIMA 345 INVESTMENTS	363631	30-Jan-2015
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000341	344,880.00 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000340	102,002.30 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000339	51,001.50 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000338	81,133.20 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000349	162,266.40 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000348	26,478.25 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000347	61,429.50 KES
Emb - Finance and Planning	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	COMMISSIONER OF INCOME TAX-PAYEE ACCOUNT	10000346	310,344.80 KES

Previous 1-10 Next 10 >

Type

Document Amount Document Currency

Payment Amount Payment Currency

Document Date

Reference Number

No results found.

Rejected and Removed Items

Return to

LINK TO GOK TENDER

Preferences

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Payment Instructions

Payment Process Requests

Home Templates

ANNEX - 7

SD 2

EMBU COUNTY GOVERNMENT
PROCUREMENT REQUISITION

To PROCUREMENT UNIT
EMBU COUNTY- HEALTH

From: Ministry of Health: Bio-Medical Engineering Dept. Sign. *[Signature]*
Approved by *[Signature]* (Principal Medical Engineer)
Authorized by *[Signature]* (C.E.O., Embu Level 5 Hospital)
Date: 15/11/2018

(C.O. Finance) GD - 2231035 / 57

Please procure the following items on our behalf

No.	Description of Goods/Services	Unit	Quantity	Previous Supplier (Where Known)	Unit Price	Or Estimated Cost	Account/Note Number
1	REPAIR/SERVICE OF RIX HIGH PRESSURE COMPRESSOR .SERIAL NO 14646	NO	1	Pulse health care	600,000	600,000	
1	PIG TAILS WITH BULL NOSE	NO	6		12,000	72,000	
Quotation No.....		L.P.O/L.S.O.....		Remarks			
Contract/Tender No.....		Prepared by		672,000			

Original Procurement: Duplicate Departmental file: Distribution
 Duplicate Departmental file: Triplicate Procurement then department



SD 2

PROCUREMENT REQUESTION LETTER

EMBU LEVEL 5 HOSPITAL

P. O. BOX 33 EMBU

Tel: 068-2231155 / 56

Date: 15.1.2018 No: 15/018

TO PROCUREMENT UNIT

EMBU COUNTY- HEALTH

From: Ministry of Health: Procurement@embu15.org.ke

Approved by: *[Signature]* **CHIEF EXECUTIVE (Principal Medical Engineer)**

Authorized by: *[Signature]* **(C.E.O. Embu Level 5 Hospital)**

(C.O. Finance)

(C.O. Finance)

Please procure the following items on our behalf

No.	Description of Goods/Services	Unit	Quantity	Previous Supplier (Where Known)	Unit Price	Or Estimated Cost	Account/Note Number
1	SUPPLY AND DELIVERY OF KAISER AIR COMPRESSOR FOR OXYGEN PLANT	NO	1	Pulse health care	1,500,000	1,500,000	2220201
Quotation No.....		L.P.O/L.S.O.....		Remarks			
Contract/Tender No.....		Prepared by		1,500,000			
Original Procurement:				Distribution			
Duplicate Departmental file:				Triplicate Procurement then department			

