

VRA NEWS

Newsletter Volume 7: January — February — March — 2016

ELECTRICITY AVAILABILITY REQUIRES CONCERTED EFFORT — Kirk Koffi



VRA Chief Executive, Ing. Isaac Kirk Koffi

The Chief Executive of the Volta River Authority (VRA), Ing. Kirk Koffi, has stated that it will take more than the VRA alone to ensure the provision of adequate, reliable and stable power to facilitate the socio-economic development of the country.

According to him, even though he acknowledges that as the number one power producer, the VRA is expected to take the lead in ensuring this is achieved,

it would require the concerted efforts of all stakeholders including, government, regulators, consumers, as well as other utilities.

The Chief Executive spoke to the *VRA News* on a wide range of issues including; the current power situation, VRA's challenges, efforts being made by the Authority to increase generation as well as his vision for the Authority. He acknowledged the improvement in the power situation and attributed it to efforts put in

OUR VISION

SETTING THE STANDARD
FOR PUBLIC SECTOR
EXCELLENCE IN AFRICA

IN THIS ISSUE >>

- ◆ Electricity Availability requires Concerted Effort *p1*
- ◆ AMERI Power Plant Starts Operations *p7*
- ◆ The 'Oldman' Goes Home — A Tribute To Hans Hein *p11*
- ◆ Operational Risk & Its Management *p20*
- ◆ Dangers of Uncontrolled Hypertension *p22*

Contd. on pg.2→



**VOLTA
RIVER
AUTHORITY**

... We Add Value to Lives

Electricity Availability Requires Concerted Effort ← Contd. from pg.1

place by the government and the VRA.

Ing. Kirk Koffi suggested that our over reliance on the hydro facilities at Akosombo and Kpong largely contributed to the recent power crisis. He restated that hydro constitutes a bigger percentage of our energy generation mix therefore anytime we have poor inflows over time, the country is presented with such challenges. Low inflows often result in a cut back in hydro generation. "Anywhere in the world, where hydro constitutes a bigger portion of the generation mix, that's what happens." Its unfortunate today hydro generation is very low. Assuming hydro was doing between 6,000GWh — 8,000GWh, things would have been different," he said.

Making reference to the recent energy crisis, the Chief Executive stated: "The lesson we have learnt is that even though it is expensive to run thermal generation, we are poised with government support to add-on all the needed thermal generation. That means over 4000MW of our generation would be thermal." He admitted that in the past fuel to run the thermal facilities was not readily available, making things a bit more difficult. He said that with the coming on board of the Atuabo Gas and the further development of the TEN and Sankofa fields, this would impact greatly on our thermal generation. The Chief Executive was also of the view that fuel insecurity in the past largely contributed to the delay in attracting Independent Power Producers (IPP's) into

the emerging energy market. He was optimistic however that with a reliable gas supply and the coming of the IPPs, the multiplier effect would be bigger for the country. "Today, Asogli, CENPower and CENIT are here; others have entered into various contracts with the Electricity Company of Ghana (ECG) and are ready to enter the industry," he stated.

To procure more gas, he mentioned that VRA through the GNPC and Quantum Energy have entered into discussions to develop a Liquefied Natural Gas (LNG) facility at Tema. LNG in effect would be the alternative source of fuel. "Our ultimate aim is to secure the needed system reserve margin as required by international best practice and expand our market share by exporting more power to

VISIT US ONLINE: www.vra.com →



Corporate Social Responsibility

— Social Enhancement Projects

Social Enhancement Projects for the Communities include:

- Classroom blocks
- Cold Store
- Potable Water
- Health Facility
- Public Place of Convenience (KVIP)
- Asphalted Road from Inchaban to Aboadze
- A first Class Road from Inchaban to Dwomoh



— Community Development Programme

To continually provide support for communities, the Authority has a Community Development Programme (CDP) under which communities also benefit from:

- Youth Training Programme
- Education
- Income Generating Activities
- Social Infrastructure
- Support for cultural activities



Working at VRA

A career at VRA is one to be proud of. Opportunities abound in personal development, rewards and aspirations. What is more, you will be challenged to thinking outside the box, while contributing to the growth of an industry leader. Whatever it is you do at VRA, you will know you are contributing to a cause which not only impacts Ghana, but also the West Africa sub-region. All these, and an organisation deeply committed to accountability, teamwork, integrity and trustworthiness. Welcome aboard!



“My vision is to ensure that we are the preferred source of electricity supply in Ghana and the sub region. I also aim to take advantage of the low accessibility in the sub region and abundant availability of oil and gas in Ghana to make our nation a net exporter of electricity.”

the sub region (Mali, Burkina Faso, Benin and Togo). We are hopeful the completion of the West African Power Pool (WAPP) project would enable us achieve that objective.”

Currently, Ghana has a high electricity accessibility of 80 percent compared to other African countries. Accra consumes about 800MW which keeps expanding on daily basis. “The increase per year means we are between third and fourth in the world. In fact, while the annual average growth for electricity in Africa is three percent, we are recording 11-12 percent. This is an indication of a growing economy,” he said. “Our double digit increase certainly requires concerted efforts to be able to meet the sustained growing demand,” he said. He maintained that the IPPs pose no threat to the VRA. “So far, we have been supportive with the provision of fuel and technical advice for their survival. We are more of collaborators than competitors. He touted VRA’s 50 years’ experience in the power generation business including her 20 years experience in thermal generation.”

On VRA’s financial position, Ing. Kirk Koffi recounted that the absence of cost reflective tariffs over the years has been one of the Authority’s greatest challenges. He noted that unrealistic tariffs have not only affected VRA but also has prevented IPPs from

entering the market. He was hopeful a cost reflective tariff would help the Authority improve its finances. He stated that the recent tariff adjustment is a decision in the right direction. “We believe if the ECG and NEDCo which consume more than 70 per cent of the power generated would beef up revenue collection then we would see improvements in our revenues.” “For the non-regulatory customers like the mines and exports, we have a good tariff with them. They constitute between 20-30 percent and they pay per the contract agreement they have with the VRA,” he stated. Unfortunately, the same cannot be said about the ECG, which is a regulated customer. “Indeed, it costs an average of 30 pesewas to produce a unit of electricity, but the tariff is pegged under 21 pesewas. This poses a challenge and that is why we advocate for cost reflective tariffs,” he said.

The Chief Executive urged policymakers to insist on the application of the automatic tariff adjustment regime. He was optimistic its consistent application and gradual increases would make the increases unnoticeable and make it possible for consumers to accommodate it. He explained that crude oil and other variables can change over time, but the consumers would not feel the impact “if we did gradual increases rather than the bulk increments which is met with re-

Contd. on pg.6

CHIEF EXECUTIVE URGES STAFF TO HAVE CONFIDENCE IN THEIR LEADERSHIP

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO

The Chief Executive of the Volta River Authority (VRA), Ing. Isaac Kirk Koffi, has urged staff to have confidence in the leadership of the Authority.

Ing. Kirk Koffi made the statement when he and his Management team, visited various work locations to welcome staff back to work after the Christmas and New Year holidays.

The Chief Executive entreated the staff to trust their leaders across all levels so that the VRA would continue to make progress. He encouraged them to build a peaceful working environment to ensure efficiency and effectiveness. He assured them of better times in spite of the challenges the Authority has faced in recent years.

Ing. Kirk Koffi indicated that measures have been put in place to ensure the provi-

sion of stable, regular and adequate power in spite of the announcement by the Metrological Agency that the country would experience reduced rainfall this year.

The Chief Executive was accompanied by the Deputy Chief Executive, Services, Mr. Joe Sutherland, Ag. Deputy Chief Executive, Finance, Mr. Richmond Evans-Appiah and Director, Human Resources, Mr. George Koranteng.

Gertrude Koomson Heads Corporate Communications

SAMUEL DEGRAFT-JOHNSON — CORPORATE COMMUNICATIONS, ACCRA

Mrs. Gertrude Koomson has returned to Corporate Communications as Head of the Unit.

It would be recalled that in 2009, she was appointed Manager of the then Public Relations Unit by the former Chief Executive, Mr. Kweku Andoh Awotwi.

In 2013, she was reassigned to the E-Business Project as the Manager for Change Management to facilitate the implementation of the E-Business Project and to see to the realization of the project's objectives. She worked with the consultants from PriceWaterCooper. When the project was fully implemented and was rounding up, she was reassigned to take up a broader Change Management role that includes: Restructuring and the Electricity Supply Board International (ESBI) Proj-

ect that VRA was implementing at the Thermal Stations.

With her experience, Mrs. Koomson is uniquely placed to successfully steer the affairs of the Unit.

VRA News congratulates her on her appointment.



Mrs. Gertrude Koomson



CHIEF EXECUTIVE'S 2016 NEW YEAR VISIT IN PICTURES



The Executives exchanging pleasantries with staff of the Vehicle Workshop



Ing. Kirk Koffi and his team meeting staff from the Akosombo Water Works



Marine Services Unit staff welcoming C.E and delegation to their premises



Staff of HR and E&SDD being addressed by the Chief



Chief Executive and his team engaging with staff from the Akosombo Generating Station

VRA SAFETY AWARENESS DAY IN PICTURES

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO

A lecturer at the University of Ghana Business School has stated that "A negative environment due to the lack of electric power for work disorients workers' daily routine, thereby reducing productivity."

He remarked that erratic supply of power is the main cause of stress in today's working environment, saying: "when a worker is deprived of the resources to function; frustration sets in and the obvious result is stress."

He made the comment at the VRA's Safety Awareness Day celebrations which was on the theme: **Promoting Occupational Safety, Health and Environment: Good return on Investment**. The event was held in all the work locations.



Mr. Evans Appiah, Ag. Deputy Chief Executive, Finance, addressing the gathering



Dr. Amponsah-Tawiah delivering his address



A section of the staff at the event



Receiptants displaying their awards

Electricity Availability Requires Concerted Effort ← Contd. from pg.3

sentment when applied.” He said: “Somebody has to pay for what he/she has consumed. Uneconomic tariff is one of the reasons VRA is entangled with financial challenges.”

Commenting on the newly introduced Energy Levy, the Chief Executive stated: “it is an intervention by government to enable the VRA clear its debt, stay stronger, recapitalize and be able to increase generation capacity with the marginally reduced tariffs. This is a good intervention and I believe it’s an investment into the future.”

With portfolio expansion, the Chief Executive indicated that VRA’s energy portfolio is growing steadily. He was of the view that but for the financial challenges, “we would have expanded faster. Companies we want to do business with often require sovereign guarantees. This has not really helped our course,” he stated. He said, in spite of these, VRA’s 220MW Kpone Thermal Power Project (KTPP) is almost completed. “We are adding the steam component and considering a feasibility study for phase two, to add-on about 450-500MW depending on the best technology option for the project,” he said. Furthermore, “we are collaborating with CENIT to add-on the steam component to the two units at Tema. We have added on

38MW to the Siemens plant at Tema.” The VRA, he continued, “is collaborating with Globaleq to develop a 400MW Combined Cycle Project at Aboadze. Moreover, VRA is working with the Ministry of Finance to ensure the 180MW Takoradi Thermal 4 Power Project (T4) becomes a reality.” He stated that feasibility studies also for the 140MW hydro dams at Pwualugu and Juale in the Northern region was also almost completed. In addition, a study for the 700MW coal project with Shenzhen Energy is also progressing gradually.

“We are vigorously pursuing our objective of adding 10 percent of renewables to our generation portfolio by 2020,” he said. Over the years, according to the Chief Executive, Ghana’s concentration has been on base-load generation because of the energy crisis. Nevertheless, VRA’s team is working on the renewables. “We are adding 12MW to our existing 2.5MW solar facility at Navrongo. VRA in collaboration with the Government of Ghana is working with KfW to finance the project to be located at Kaleo and Lawra in the Upper West Region. Similarly, we have completed the mandatory one year feasibility studies on the proposed 150MW wind project. VRA is working with Vestas and El Sewedy to develop the facility at

4 locations; Anloga, Anyanui, Lekpoguno and Akplabanya.

On restructuring, the Chief Executive indicated that the process has been suspended due to the current financial position of the Authority. “Currently, we are operating the subsidiaries as Special Business Units (SBUs). The idea is to monitor their performance and reshape them properly before they take off,” he explained.

Responding to the question of what his vision for the Authority is, Ing. Isaac Kirk Koffi stated: “My vision is to ensure that we are the preferred source of electricity supply in Ghana and the sub region.

I also aim to take advantage of the low accessibility in the sub region and abundant availability of oil and gas in Ghana to make our nation a net exporter of electricity.” “I want to ensure VRA becomes an excellent organization in both the core and non-power enterprises. I want to ensure we have adequate generation now and in the future,” he said.

He concluded that as far as the country’s energy security is concerned the future is bright.

We are vigorously pursuing our objective of adding 10 percent of renewables to our generation portfolio by 2020.

AMERI POWER PLANT STARTS OPERATIONS

SAMUEL DEGRAFT-JOHNSON — CORPORATE COMMUNICATIONS, ACCRA

The 250MW gas-fired, Build Own Operate Transfer (BOOT) AMERI Power Plant has commenced full operations at Aboadze.

Speaking to the VRA News, Principal Mechanical Engineer who doubles as the Deputy Project Manager for the AMERI Project, Mr. Michael K. Wiafe, stated that “All ten (10) units have been commissioned on natural gas supplied by Ghana Gas Company.” He pointed out that the plant achieved its commercial operation date on February 1, 2016, having passed the requisite performance test for power output and heat rate guarantees set out in the contract.

“Consisting of ten (10) TM 2500+ supplied by General Electrics (GE); (10) gas receiving stations supplied by METKA and five (5) Generator Step-up Trans-



Geotechnical investigation in progress at the selected Site in January 2015



Site visit by the Former Minister of Power, Hon. Kwabena Donkor

formers from Electroputere of Romania, the plant is dispatching at base load at a net power output of 255MW, which is 25MW in excess

of the guaranteed power,” he said. Mr. Wiafe indicated that the plant consumes up to 55MMSCFD of natural gas (per day).

VRA MOURNS WITH SHAI OSUDOKU

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO

The Chief Executive of the Volta River Authority (VRA), Ing. Isaac Kirk Koffi, joined the chiefs and people of Shai Osudoku to observe the burial and final funeral rites of the late Nene Klagbordjor Animle V, Paramount Chief of the Shai Osudoku Traditional Area.

On behalf of the Authority, the Chief Executive presented a cash donation of Five Thousand Ghana cedis (GH¢5,000.00); Two (2) cartons of beer; Two (2) cartons of Guinness; Five (5) cartons of soft drinks; and Two (2) bottles of schnapps to the Funeral Planning Committee.

He was accompanied by the Deputy Chief Executive (Services), Ing. Joseph Sutherland; Director, Legal Services, Lawyer K.T.K Agban; and Head of Corporate Communications, Mrs. Gertrude Koomson.



Ing. Kirk Koffi leading his delegation to the durbar grounds

VRA's RESTRUCTURING WOULD CREATE JOB OPPORTUNITIES — Chief Executive

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO

The Chief Executive of the Volta River Authority (VRA), Ing. Kirk Koffi, has stated that people living in communities impacted by its operations stand to benefit from the Authority's restructuring programme.

In a speech delivered on his behalf by the Director, Hydro Generation, Ing. K.B. Amoako, the Chief Executive, stated:

“Our restructuring would exploit the economic potentials of the district, create job opportunities, provide first class education for our children and ensure a healthy working population to create the enabling environment to transform the Asuogyama District.”

The Chief Executive made the comment at a Stakeholders' Forum, organized by the Rev. F. Monninger Congregation of the Presbyterian Church at Akosombo. It was on the theme: *“Promoting Investment and Trade at Asuogyaman.”*

The Asuogyaman District Chief Executive, Hon. Thomas Ampem Nyarko urged all stakeholders to support the development of the district.

The paramount chief of the Akwamu Traditional Area, Odeneho Kwafo Akoto III, commended VRA and other organisations for their contributions towards the development of the area. He appealed to potential investors to focus on the numerous opportunities within the area.

A lecturer at the Ghana Institute of Management and Public Administration (GIMPA), Dr. Kwaku Ofori Asare, who chaired the function, urged potential investors to focus on the development of the educational infrastructure in the district.

The forum brought together all stakeholders from the district.



Asuogyaman DCE, Hon. Thomas Ampem Nyarko delivering his speech



Paramount Chief of Akwamu Traditional Area, Odeneho Kwafo Akoto III, making a contribution at the forum



Ing. K.B Amoako presenting the CE's address

STAY FOCUSED AND MOVE AHEAD!

In our world today, many people plan their lives and set goals for themselves. They believe that at a certain age, they should have gotten to a particular stage in their lives. Unfortunately in as much as they try to achieve those plans, many challenges come their way making it difficult for them to be focused and move ahead.

When we aim at a goal, there will surely be several hindrances. There is the need to be determined, focused and persevere to achieve that goal. Perseverance is a valuable quality that is a necessity

in every human life.

Not giving up easily teaches us to work harder to achieve our desires but also helps us to understand our strengths and weaknesses.

If one desires to gain a particular profession, he needs to challenge himself to bring out his best and with the understanding of his strengths and weaknesses, he/she will achieve his/her aim.

Negative attitudes one may depict which implies, "I am tired and will handle it later," and statements like, "I can no longer continue," "this is too much for me," "why should

I set such a goal?" will definitely discourage you from focusing and moving ahead. The attitude of not giving up would help to always improve one's self.

Moreover, a never giving up attitude leads to optimism, courage and confidence and finally success will be your reward. Hard work never goes unrewarded and whatever you strive for will be rewarded someday.

As you strive for success in your endeavours, overcome the challenges through hard work and be focused and move ahead!

VRA DONATES TO ABOADZE ROYAL FAMILY

MICHAEL DANSO & REXFORD DARKO — CORPORATE COMMUNICATIONS, ACCRA

The Volta River Authority (VRA) as part of its Corporate Social Responsibility has provided a 16-seater aqua privy toilet facility valued at Two Hundred Thousand Cedis (GHc200,000.00), a 48-liter water reservoir and a cash donation to the Chiefs and people of the Aboadze, Dwomo and Abuesi communities (Aboadze Royal Family).

Making the presentation, the Manager, Environment and Sustainable Development Department at the VRA, Mr. Kwesi Prempeh, noted that the presentation was to help improve the living conditions of the people. He pointed out that the VRA values its relationship with impacted communities and would continue to partner them to ensure a sustainable stakeholder engagement.

He commended the chiefs and people for their support and was hopeful both parties would live harmoniously to ensure peace and stability in the area.

The Chief of Aboadze, Nana Kobina Atom III, who was assisted by the Chief of Abuesi, Nana Amakye II and Mr. Prempeh to commission the project, thanked VRA for the donation.



The branded reservoir



Nana Atom III being assisted by Mr. Prempeh to commission the facility

Audit Risk

JAMES JABARI NAPOUR — DIRECTOR, AUDIT, ACCRA

This article outlines and explains the concept of audit risk. The key objective of the auditor is to conduct a planned assignment in a manner that reduces audit risk to an appropriately low level. Audit risk is fundamental to the audit process because **auditors cannot and do not attempt to check all transactions** in the course of their assessments. Unlike other categories of risks, audit risk also referred as residual risk refers to “the risk that the auditor expresses an inappropriate audit opinion when the financial statements are materially misstated. Audit risk is a function of material misstatement and detection risk.” The failure to detect material misstatement may either be due to error, intentional miscalculations or fraud.

IDENTIFICATION AND ASSESSMENT OF SIGNIFICANT RISKS

In exercising judgement as to which risks are significant, the auditor is required to consider the following:

- Whether the risk is a risk or fraud.
- Whether the risk is related to recent significant economic, accounting or other developments and therefore requires specific attention.
- The complexity of transactions and business processes.
- Whether the risk involves significant transactions with related parties.

TYPES OF AUDIT RISK

The different types of audit risk include Inherent risk, Control risk, and Detection risk.

INHERENT RISK: This is the susceptibility of an assertion about a class of transaction, account balance, or disclosure to a misstatement that could be material, either individually or when aggregated with other misstatements, before consideration of any related con-



trols. Examples include double counting sales, incorrectly valuing inventory for cost of goods calculations and failing to disclose significant accounting changes.

CONTROL RISK: The risk that one or more material misstatements might not be prevented or detected on a timely basis by the internal control systems instituted by management. For example, if the revenue is misstated on a company's income statement, control risk means that the company's internal auditing processes will not be able to uncover it before the financial statements are published.

DETECTION RISK: The risk that the procedures performed by the auditor might not be able to detect a misstatement that exists and that could be material either individually or when aggregated with other misstatements. ***It occurs when the correct audit procedure is not used or the audit procedure is applied incorrectly.*** For example, if there are revenue or cost misstatements on a company's income statement, detection risk refers to the possibility that an audit fails to detect these misstatements and, consequently, expresses an inappropriate favorable opinion.

Thus detection risk is affected by the effectiveness of the substantive procedures and their application by the auditor, i.e., whether the procedures were performed with due professional care.

ANALYTICAL PROCEDURES

Analytical procedures performed as risk assessment procedures are intended to help the auditor in identifying unusual transactions or positions. They may identify aspects of the entity of which the auditor was unaware, and may assist in assessing the risks of material misstatement in order to provide a basis for designing and implementing responses to the assessed risks.

OBSERVATION AND INSPECTION

Observation and inspection may also provide information about the entity and its environment. Examples of such audit procedures can potentially cover a very broad area, including observation or inspection of the entity's operations, documents, and reports prepared by management as well as the entity's premises, plant and equipment.

SIGNIFICANCE OF AUDIT RISK

A low audit risk is significant as it is not possible for auditors to verify all transactions under consideration. Audi-

Contd. on pg.17→

The 'Oldman' Goes Home

— A Tribute To

HANS HEIN

KWESI EYESON — VRA ACADEMY, AKUSE



For staff of the Marine Services Unit (MSU) at Akosombo, the accolade 'Oldman' was used to refer to two important people. The first, former President J. J. Rawlings, who visited the Unit quite often to see his German friend.

The second was the German boat builder, Hans Hein, builder of the 'Dodi Princess', a tourist boat, who passed away in October 2015 at Hamburg in Germany, after ill-health.

Hans came to Ghana in the 1990s as a member of a Ghanaian-German Cooperation team to help re-vamp the Volta Lake Transport Company (VLTC) at Akosombo. When the project was completed Hans was contracted by VRA to manage the Authority's fleet of lake craft at the Marine Services Unit.

Shortly, Hans' name was associated with boat building when he single-handedly designed and built the 'Dodi Princess', the VRA pleasure boat, from an abandoned grains boat at Ada belonging to the Grains Development Board.

He helped VRA refurbish other boats such as the medical boat, 'Onipa Nua', named after the famous Ghanaian blind musician; the Executive Yacht, now christened 'Ohemaa LXI'; and smaller boats such as 'Lake Arrow' and 'Lucifer', used for rescue operations on the Volta Lake.

'Dodi Princess' soon became the best tourist attraction in the country where dignitaries, such as foreign presidents who visited the country were hosted and fêted and taken on a cruise to the Dodi Island.

Hans was humble. He always said, he was just 'a diver'. The beauty about western education is that it recognizes achievements rather than academic titles. Hans was an experienced and competent professional in maritime services.

He played a key role in the underwater tree stumps cutting operations in the Volta Lake to facilitate safe transportation on the lake. These stumps were remnants of forest vegetation that were submerged under the lake for many years, and now pose great danger to boats and passengers on the lake.

He participated in the dredging of the Volta River estuary at Ada to facilitate easy flow of the river into the sea and to prevent the development of water-borne disease such as bilharzia.

One major quality of Hans was his ability to interact and integrate with people at all levels of the Authority. His closest friends were the former President J. J. Rawlings and the late Chief Executive of VRA, Ing. Louis Casely Hayford.

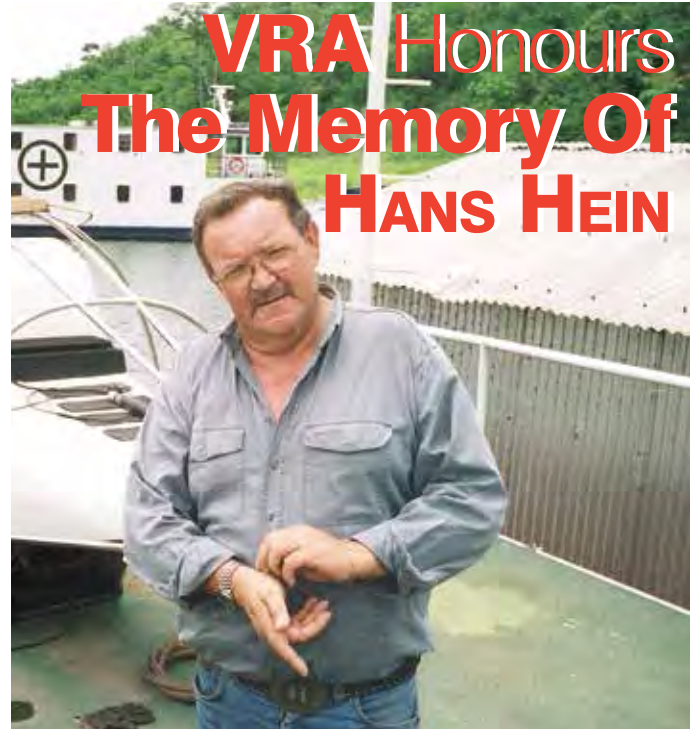
For his contribution to the building and maintenance of lake craft for the promotion of tourism on the Volta Lake, Hans received a special award at the first ever Eastern Regional Tourism Award ceremony held at the Hotel Eredec in Koforidua in 1996.

'Oldman' Hans has gone home finally to his maker. He would be sorely missed by his co-workers and friends at the MSU: Adade, Sammy Angmor, Mogtari, Kenneth Ocansey, Moses Kwawukume, Kwesi Small and all the other staff.

Management and staff of the Volta River Authority (VRA) have honoured the memory of the late Hans Wolfgang Hein, formerly of the Marine Services Unit (MSU) of the Environment and Sustainable Development Department.

Born April 17, 1943, in Kunzendorf, (originally in Germany, now located in the Czech Republic) Hans became synonymous with the Volta River following his exploits with the Marine Services Unit. It was not surprising that Hans' passion and selfless attitude to service received recognition as he was awarded the "Companion of the Order of the Volta."

To his memory, his mortal remains (bottle of ashes) has been buried in a tomb around the Mari-



time Club House. In addition, the drive way from the main road to the premises of the Marine Services Unit has been christened “Hans Hein Maritime Drive.”

The Chief Executive of VRA addressed the gathering followed by tributes by the children, wife, President Jerry John Rawlings and the VRA. Staff of the Marine Services Unit also paid their tribute by demonstrating their dexterity on their boats.

In attendance were family, friends, well-wishers and staff. Among the dignitaries were former Chief Executive, Mr. E.A.K Kalitsi; former Deputy Chief Executives, Services, Rev. I.N. Ghansah and Mr. J.S Okpoti; former Volta Hotel Manager, Mr. Edem Kpodo; Medical Director, VRA Hospitals, Dr. (Mrs.) Rebecca Acquah-Arhin; former Director, Health Services, Mr. Nkrumah Mills, among others.



Personality Profile

Mr. Sampson Kwasi Onomah

Mr. Sampson Kwasi Onomah, nicknamed “Osikani” hails from Mampong, Akuapim in the Eastern Region, where he was born on October 1, 1956.

He had his basic education at Adawso Presbyterian School in 1962 and went to the Ghana Technical School at Koforidua, for two years, to study Auto Mechanics.

After school he went to Mamfe, near Mampong, to do practical work for two years. In 1977, he came to Accra to live with his family at Burma Camp. The same year he got employed by the Ghana Armed Forces as a Dispatch Rider at the Public Relations Directorate, at the office of the late Col. I. K. Acheampong.

From 1978 to 1980 he was at the Armed Forces Base Workshop as a Mechanic. He later became a Taxi Driver in 1981 after leaving the Armed Forces.

Between 1991 and 1999, he was the driver to the former Chief Executive, Mr. E. A. K. Kalitsi, and travelled to a number of places, such as the Northern parts of

Ghana, Benin and Togo on official assignments. That same year, “Osikani” saw an advert in the dailies by the Volta River Authority seeking to employ drivers. Out of 45 applicants, he was among the very few selected.

He became the personal driver of the then Chief Finance Officer, Mr. Norris. Mr. Onomah recalls that in the past VRA was a large family; the directors understood their employees and the finances were good. He also had the opportunity to travel to Denmark, Sweden and Germany, where he performed protocol duties.

He recounts and appreciates VRA’s core values, which have generally helped shaped his life. According to him, he has very good relations with his colleagues and there is mutual respect among them.

“Since I came to VRA I have not had any problem with anyone and I work with everyone in a team. If someone does something against me, I approach the person for an amicable resolution.

“My family understands the kind of job



Sampson Kwasi Onomah

I do and always supports me. My job has helped me to improve my communication skills, and to learn to be obedient.

His worst moment at the VRA was on December 24, 1984. His supervisor had sent him on an errand, on his way he had a terrible accident at Labadi, a suburb of Accra.

My advice to upcoming drivers is that they should be disciplined, dedicated, and trustworthy. They should develop good communication skills and relate with everyone with decorum. Mr. Onomah is married with four girls.

VRA appoints New HR Director

SAMUEL DEGRAFT-JOHNSON — CORPORATE COMMUNICATIONS, ACCRA

Former Manager, Organisation Development & Management Systems (ODMS), Mr. George Koranteng, has been appointed the Director for the Human Resources Department.

VRA News congratulates Mr. Koranteng on his appointment and wishes him well in his new position. We trust that all staff would offer him the needed support in the execution of his functions.

Watch out for the Director’s strategy paper for the Authority in the next edition.



Prevention is Better than Cure. Read the 'HEALTH CORNER' every Quarter

UPDATES: Ongoing Programmes

KNOWLEDGE MANAGEMENT (KM)

A Community of Practice is a group of practitioners in an organization with a common sense of purpose who agree to work together to solve problems, share knowledge, cultivate best practice and foster innovation.

Communities of Practice is characterized by the willing participation of members and their ongoing interaction in developing a chosen area of practice.

You can access the Communities of Practice (CoP) on the Knowledge Management (KM) Portal for:

- ❖ **Health CoP**
- ❖ **Project Management CoP**
- ❖ **Engineering CoP**
- ❖ **Reward Management CoP**
- ❖ **Hydro Generation CoP**
- ❖ **Thermal Generation CoP**
- ❖ **Legal CoP**

Also join in the discussions on corporate issues at the Project Management Communities of Practice (PMCoP) “**Discussion Forum**”

Click here to join: <http://www.vra.com/kmportal/>

ELECTRONIC DOCUMENT & RECORDS MANAGEMENT SOLUTION (EDRMS)

The EDRMS project team has visited six (6) departments namely, Human Resources, Real Estates and Security, Legal Services, Finance, Technical Services, MIS at the various work locations. The purpose of the visit was to discuss and review the various workflows submitted by the departments.

The team is also preparing file plans for the various departments to be incorporated in the corporate file plan.

Preparations are being made to train staff in the use of the new system.

Staff are entreated to cooperate with the Project team.

THERMAL GENERATION PROGRAMME



What does the 3B Strategy Mean?

BEST PRACTICES

- Living the VRA Values (ACT IT)
- Compliance
- Organisational Responsiveness

BEST RESULTS

- Competent & Motivated workforce
- Optimum Plant Performance
- Health Partnerships

BEST BUSINESS

- Business Leadership
- Optimum Financial Performance
- Preferred Brand



QUOTE: *It is not the strongest leaders that survive, nor the most intelligent: instead it is the ones that are most responsive to change.* — Charles Darwin

PWALUGU MULTIPURPOSE DAM STEERING COMMITTEE MEETS IN AKOSOMBO

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO

Members of the Pwalugu Multipurpose Dam Steering Committee have held their third successive meeting at Akosombo.

The Deputy Chief Executive (Services) of the Volta River Authority (VRA), Ing. Joseph Sutherland, who chaired the meeting, described the meeting as vibrant, noting that the information provided by the consultants, Tractebel Engineering and Mott MacDonald Ltd/Environ Engineering and Management Consult, on the Technical Feasibility Study and Environmental & Social Impact Assessment (ESIA) would help in determining the progress of the project.

He said, "development of the multipurpose dam is very obvious, but, observed that benefit, cost and design of the project are but a few questions the committee is working on before the project finally takes off."

The 50MW Pwalugu Multipurpose Dam is one of the projects outlined in the VRA's 10 year power generation expansion plan. It is expected to be located on the White Volta approximately 30km Southeast of Bolgatanga. The project is expected to provide irrigation for about 20,000 hectares of farmlands, serve as a flood control mechanism, as well as promote fisheries, boost tourism and transportation in the form of navigation in the area.

The Steering Committee consists of the Water Resources Commission, Environmental Protection Agency, Volta Basin Authority, Ghana Irrigation Development Authority and Ghana Dams Dialogue. The rest are Savannah Accelerated Development Authority, Ministry of Power, Northern Region Coordinating Council, Upper East Region Coordinating Council and Northern Electricity Distribution Company.



Participants at the meeting

MARRIAGE HAPPINESS: REALITY OR DREAM?

DR. EMMANUEL SOWAH — VRA HOSPITALS, ACCRA



The people who make us happy today may tomorrow bring us so much pain that we will wish we never met them. We have seen husbands do things to their wives which they would not think of doing to their worst enemies. Many have murdered their lovers. The emotional torture that many men and women are putting their spouses through is unimaginable.

In spite of these facts many young men for example think that when they have intimate access to a beautiful woman as in marriage they will be happy. They believe that sex as an activity can be a tool to settle problems, forgetting that there are men with unlimited access to multiples of pretty women who still are among the most miserable people you can think of. There are also many, especially, women who see marriage as a "Promised Land" of happiness, a panacea for all their problems. They dream of a prince-charming who will sweep them off their feet and fill their lives with thrills and goodies. They however need to take note of what Cyril Conolly said; "There is no pain equal to that which spouses can inflict on one another."

We each are responsible for our own happiness. Handing over this responsibility to another is tantamount to risking enslaving of our emotions to the whims and caprices of a spouse. Men especially tend not to fancy having to shoulder the responsibility of delivering happiness to their wives, so wives, would be advised to stop looking for happiness in the wrong place. Finding something to be happy about all the time is a venture worth pursuing by each one of us, because it has benefits for our health and longevity.

ADDRESSING THE ENERGY PROBLEM...IT'S TIME TO TURN TO 'NEGAWATTS'

KWESI EYESON — VRA ACADEMY, AKUSE

At an orientation programme for newly-recruited Technician Engineer Trainees some time ago, I asked them of what they know about 'NEGAWATTS'. One of them tried to correct me by saying 'MEGAWATTS'. No, I said 'NEGAWATTS', I insisted.

So I asked them to google, and it was there in black and white: 'A NEGAWATT is a negative megawatt; a negawatt of power saved by increasing efficiency or reducing consumption.' In other words megawatt is to energy production as negawatt is to energy conservation.

This incident came to mind when I read from the front-page story of the VRA News Volume 6: July - September 2015 edition, under the title 'An Energy-Efficient Economy Through Conservation.' I thought it was very appropriate coming at this time when all our efforts seem to be concentrated on energy production.

Indeed, I have often wondered why we have decided to leave energy conservation to only the consumers of power. I know for a fact that the Energy Commission has been doing its best to educate the public on energy conservation methods, but these have not been enough to sustain the momentum.

In 1996, the VRA introduced Compact Fluorescent Lamps (CFLs) also known as energy saving lamps into the country. It subsequently embarked on a nationwide energy conservation programme using jingles, drama, print

Contd. on pg.18→

MR. AMOAKO-BAAH MADE DIRECTOR, TECHNICAL SERVICES



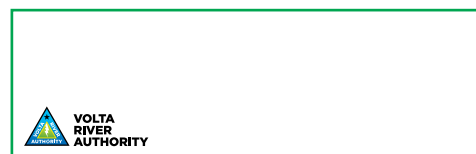
Mr. Jonathan Amoako-Baah has been appointed Director, Technical Services. Before his appointment, Mr. Amoako-Baah worked as Manager, Business Development with the Planning and Business Development Department; re-designated Planning & Power Business.

VRA News congratulates him on his appointment and wishes him well in his new role.

Are you familiar with the VRA's Code of Ethics? See the back cover for more information.

USE OF CORPORATE LOGO

Position of corporate logo on all documents:
Lower left



Audit Risk ← Contd. from pg.10

tors tend to focus on key risk areas for example, overstated revenues or understated costs, where it is more likely that errors will lead to material misstatements on the financial statements. Auditing standards require auditors to plan and perform audits with professional skepticism because there is always the possibility that the financial statements are materially misstated. Professional skepticism involves a questioning mind and a critical evaluation of evidence made available.

It is also worth noting that inherent risk and control risk are

related to the company, its environment, and its internal controls, and the auditor assesses those risks based on **evidence made available**. The auditor assesses inherent risk using information obtained from performing risk assessment procedures and considering the characteristics of the accounts and disclosures in the financial statements. The auditor also assesses control risk using evidence obtained from tests of controls and from other sources.

VRA ENGAGES WITH AQUACULTURE OPERATORS IN THE EASTERN REGION

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO

The Environment & Sustainable Development Department (E&SDD) of the Volta River Authority (VRA) has organised a one-day workshop at Akosombo for Aquaculture operators within the Asuogyaman District in the Eastern Region.

The workshop according to the Deputy Chief Executive (Engineering & Operations) of the VRA, Ing. Richard Badger, is to enable stakeholders within the aquaculture sector in the district to collectively deliberate on decisions that would bind on them to ensure that the lake is protected.

He pointed out that the Volta River Authority through the E&SDD appreciates the need to partner with key regulators within the aquaculture sector following the key role the Volta Lake plays in the Authority's hydro generation operations.

"It is important we all recognise that anything we do on the yield of water (Volta Lake) impacts on the ability of the Authority to generate electricity. It is therefore important for us as custodians to maintain the resource with the highest integrity it deserves," he stated.

Director, E&SDD, Ing. Theo Nii Okai indicated that aquaculture on the Volta Lake is becoming very common but cannot be discouraged because it forms part of the mandate under the Volta River Development Act.

The workshop brought together stakeholders such as the Environmental Protection Agency (EPA), Water Research Institute, Ghana Navy, and the Fisheries Commission among others.



Ing. Richard Badger and Ing. Theo Okai engaging with the participants

ADDRESSING THE ENERGY PROBLEM... IT'S TIME TO TURN TO 'NEGAWATTS'

← Contd. from pg.17

and electronic media, churches and mosques among others to educate consumers on the advantages of replacing the old incandescent lamps with the new CFL lamps.'

The impact was nationwide. Individuals and organisations became more conscious of their energy consumption. Some organisations instituted measures to reduce their energy consumption such as using sensors to shut-off energy use while no one is present in the offices.

I remember that in those days anytime I came home from work, the first thing I did was to check whether any electrical gadget including the light was not unnecessarily turned on and then would switch it off, often coming into conflict with 'she-who-must-be-obeyed.'

So what has happened that we have all gone to bed? Why have we lost the momentum to educate the public on energy conservation?

We all know that the problem of the energy sector is more of a demand phenomenon than supply because it is a vicious circle of consumers not being able to pay economic tariffs; and the producers of power not being able to recover costs and therefore not being able to invest more in the energy sector.

Hence, we cannot afford to be lackadaisical in our efforts to introduce energy-efficiency measures (negawatts) to reduce energy consumption and energy costs to make it viable and profitable for the energy producers to operate optimally.

SOLOMON AYORNU ELECTED WELFARE

The Accra Branch of the Volta River Authority's Drivers' Welfare Union has elected Mr. Solomon Amatey Ayoranu popularly referred to as "Solo" as their Welfare Chairman.

The 56-year-old dynamic, respectful and experienced driver, who hails from Ada in the Greater Accra Region, polled 22 votes to beat his sole contender and colleague, Eric Appiah, in a keenly contested election. Speaking to the VRA News, the newly elected Chairman thanked his

DEPUTY MAYOR OF TRONDHEIM CONFERS WITH MAYOR OF AKOSOMBO

NATHANIEL EKUE MENSAH — CORPORATE COMMUNICATIONS UNIT, AKOSOMBO



Mayor of Akosombo interacting with Mrs. Hilde Opoku in his office

The Mayor of Akosombo, Mr. E.K Ofori, has stated that the successful establishment of a sister-city relations with Trondheim would inure greatly to the benefit of the Authority.

The Mayor made the remark when the Deputy Mayor of Trondheim, Mrs. Hilde Opoku, paid a courtesy call on him. The call according to the Mayor of Trondheim was to discuss the possibility of establishing a sister-city relations between Trondheim and Akosombo.

Mr. E.K.Ofori noted that the sister-city relations if established would enable the Authority tap into the rich experience of Trondheim in the areas of tourism and sanitation management with a focus on waste recycling.

The Trondheim Mayor was hopeful necessary steps would be taken to ensure that a sister-city relations between Akosombo and Trondheim becomes a reality.

MRS. GRACE MANIESON-ANNANCY PASSES ON

The Akosombo Anglican Church of the Resurrection on February 1, 2016 organized a Requiem Mass for Mrs. Grace Manieson-Annancy who has passed on to glory.

Mrs. Annancy was employed by the Volta River Authority (VRA) as a Graduate Mistress on January 2, 1979 and became Director of the VRA Schools on November 1, 2002. She held the position until her retirement on May 27, 2010.

The late Manieson-Annancy who died at the age of 65, did not surrender her passion for children on her retirement as she occupied herself with the construction of a children's library at Akosombo. Uncertainties of life however did not allow her to see her dream come into fruition.

Present were the Chief Executive, Ing. Isaac Kirk Koffi; Deputy Chief Executive, Services, Mr. Joseph Sutherland; former General Manager, VRA schools, Mr. Arnorld Seshie; former Director of Health Services, Mr. Nkrumah Mills; Manager, Accra/Tema HR, Mrs Adina Quarshie and a host of VRA staff and sympathisers .

May her soul Rest in Perfect Peace.



Mrs. Grace Manieson-Annancy

CHAIRMAN MICHAEL DANSO — CORPORATE COMMUNICATIONS, ACCRA



Solomon Ayornu

colleagues and assured that he would work assiduously to justify the confidence reposed in him.

Solomon Ayornu joined the Authority in February, 2006 as a Grade II Driver and has been consistent on the road without recording any road accident. Aside his driving profession, he holds a certificate in Computer Hardware and Networking from the WISAK Computer School, Accra, having passed the City and Guild Examination.

Operational Risks and its Management

INTRODUCTION

We are continuing our discussion on the types of risks that could impact VRA's operations and how these could be managed.

In the last risk management article, we deliberated on Strategic Risk Management, which ensures management of risks that are fundamental to an organization's continued existence and prosperity. This article focuses on Operational Risk Man-

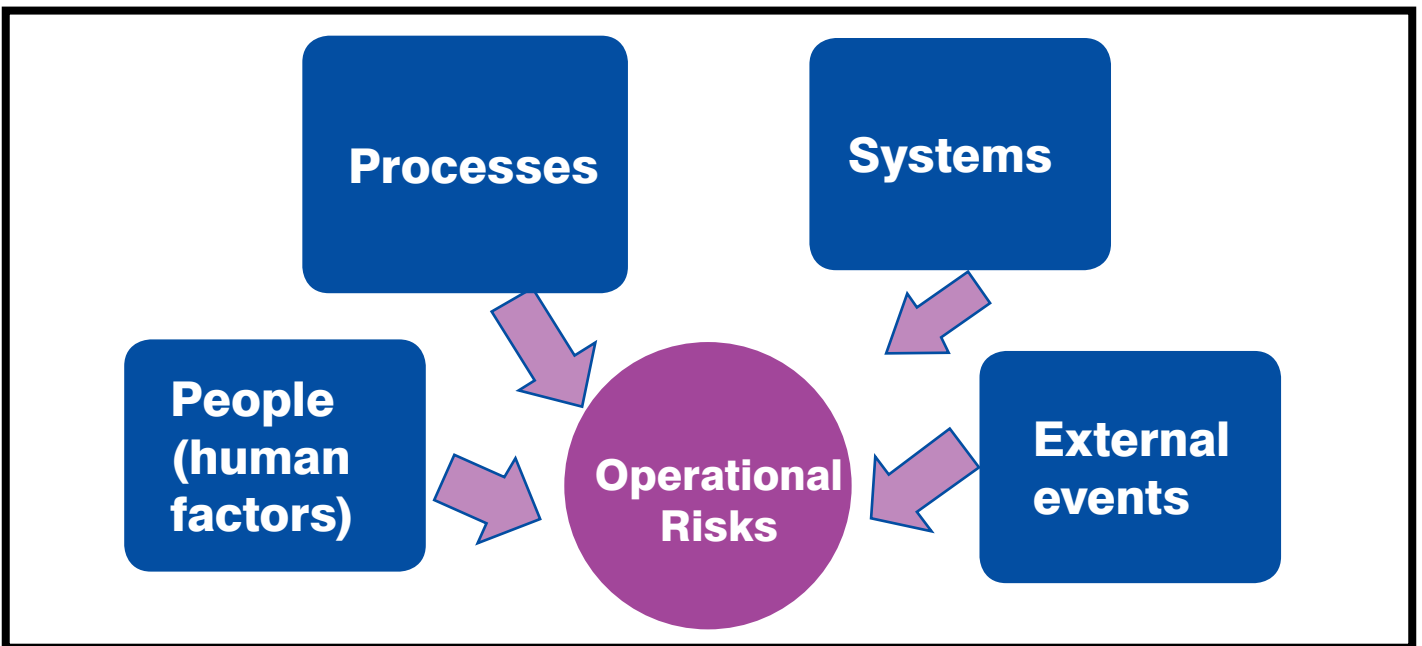
agement; relating to management of risks arising from the execution of an organization's business functions.

WHAT ARE OPERATIONAL RISKS?

Operational risks can be defined as the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events. It is any process, system event, outside event or natural occurrence that can affect the safety,

performance and/or perceived value or operational capability within a department or special unit.

Operational risks could thus cover unwanted results brought about by people not following standard operational procedures, by systems breakdowns; including computer-based systems, or by external events, as illustrated below:



In power generating companies, operational risks involve those risks that adversely affect energy output and efficiency levels. Included among these are plant shut-downs due to breakdown or failure of equipment or processes or disruptions in fuel supply and low water levels.

Others include operator error, aging generating units, labour disputes, inability to comply with regulatory or permit requirements, disruptions in delivery of electricity, and catastrophic events such as earthquakes, fires, explosions, floods or other similar occurrences affecting

generating facilities, transmission and distribution systems.

Currently in Ghana, as a result of increased demand and other factors, there is presently an increased risk to generation reliability. Generation peak reserve margins are now lower than what is considered desirable. Existing generating units are now being run harder, resulting in the need for more frequent and extensive maintenance, which at times require temporary shut downs of these units.

Examples of operational risks that have occurred in the banking sector, resulting in huge losses, due to circumvention of the institutions' regulations include; Société Generale, which lost €4.9 billion in 2008, due to unauthorized trading by Jerome Kerviel. The UBS also suffered a loss of USD 2.3 billion in September 2011, due to unauthorized trading by Kweku Adoboli, one of its employees.

A recent example in the oil and gas industry is the Deepwater Horizon Oil Spill (also known as BP Oil Disaster), caused by faulty wiring, failure of concrete used to seal the base of a deep well and other human and mechanical errors, resulting in an explosion that killed 11 people and injured 17 others. In November 2012, BP was fined US\$4.525 billion by the United States Department of Justice. Other criminal, civil and payments to a trust fund amounted to US\$42.2 billion by February 2013. In July 2015, BP paid an extra fine of US\$18.7 billion, the largest corporate settlement in US history.

These examples underline the fact that some losses arising from not effectively managing operational risks could be huge.

MANAGEMENT OF OPERATIONAL RISKS

Management of risks in our operations will lead to achievement of our departmental/special units' objectives. Effective operational risk management involves the following:

Identification, assessment and management of key operational risk exposures: This involves systematically and comprehensively identify-

ing risks. Assessing their likelihood of occurrence and impacts on operations, should they occur. Prioritizing and implementing mitigation strategies to avoid such situations, which critically affect operations, if they were to occur.

The relevant steps are as detailed below:

- ◆ Establish all key business functions/operations and objectives that need to be achieved. This can help the identification of all possible risks.

- ◆ Identify all key operational risk exposures, asking what could happen that can prevent, delay or enhance the execution of the functions/operations or achievement of objectives.

- ◆ Determine the probability of occurrence of each identified risk; asking the question, when, where, why and how risk events could occur.

- ◆ Assess the consequences or the potential size of the impacts should the risk event occur.

- ◆ Rank and prioritize all identified risks, based on the product of probability of occurrence and impacts and obtaining the risk severity score.

- ◆ Assign responsibilities for treatment of all the high operational risk exposures: Specification of roles and responsibilities of personnel regarding risk treatment, streamlines the risk management process and also allows better incorporation of accountability. Everyone must play his/her roles very well and be accountable in reducing risk exposures.

- ◆ Draw up risk mitigation

plans and implement the risk mitigation actions.

- ◆ **Develop Loss Databases:** One center piece in operational risk management requires development of departmental/special unit level databases to capture loss events attributable to various categories of operational risks. This historical data will help future risk identification and enable effective business decisions on setting appropriate risk control measures or mitigating actions.

- ◆ **Risk Reporting and Escalating Procedures:** - There must be a clear procedure for all employees to report all risks and near-misses in their operations and if necessary, escalate to the right authority for action to be taken.

- ◆ **Communicate significant actions being taken on risks:** Departmental/Special Units' heads must communicate to all key stakeholders/interested parties that appropriate measures are being taken to minimize the frequency of occurrence and/or reduce the impact of high risk exposures that their departments/special units face.

CONCLUSION

Practical experience shows that companies which design and practise effective operational risk management are able to sustain their assets reliability, improve on the efficiency of their business processes, minimize human errors, and achieve their corporate goals. They are able to outperform their peers and create competitive advantages, even in our ever increasing complex business environment.



DANGERS OF UNCONTROLLED HYPERTENSION

Most of the time hypertension or high blood pressure can exist in an individual without any symptoms whilst it is quietly damaging the body for years before symptoms develop. Here is a look at the complications high blood pressure can cause when it's not effectively controlled.

DAMAGE TO ARTERIES

Arteries carry blood from your heart to your body tissues and organs. Healthy arteries are flexible, strong and elastic. Their inner lining is smooth so that blood flows freely, supplying vital organs and tissues with adequate nutrients and oxygen.

High blood pressure, gradually damages the cells of your arteries' inner lining leading to the artery walls becoming thick and stiff, a disease called arteriosclerosis or hardening of the arteries.

Ultimately the artery gets weakened to the extent that under the high pressure a section of its wall may enlarge and form a bulge (called aneurysm) which can potentially rupture and cause life-threatening internal bleeding in any part of the body that it forms, commonly in the aorta, the body's largest artery.

The damage also results in fats in the blood stream collecting along the artery lining and blocking blood flow to the heart, kidneys, brain, arms and legs. The damage can cause many problems, including chest pain (angina), heart attack, heart failure, kidney failure, stroke, blocked arteries in your legs or arms (peripheral artery disease), eye damage, and aneurysms.

DAMAGE TO THE HEART

Your heart pumps blood to your entire body. Uncontrolled high blood pressure can damage your heart in a number of ways, such as:

Enlarged Left Heart: The high pressure within the blood vessels that the heart has to pump blood through, forces it to work harder than necessary. This causes

the left ventricle of the heart which does the pumping to thicken or stiffen (left ventricular hypertrophy) and hence become ineffective in pumping blood, increasing risk of heart attack, heart failure and sudden cardiac death.

Coronary Artery Disease: When the damage to the arteries involves the arteries supplying blood to the heart (coronary arteries), supply of blood to the heart muscles is reduced leading to chest pain, a heart attack or irregular heart rhythms (arrhythmias).

Heart Failure: The strain on the heart caused by the excessive pressure against which it has to pump in hypertension over a long period can cause the heart muscle to weaken and work less efficiently. Eventually, it begins to wear out and fail. If the heart muscle has previously suffered damage from coronary artery disease or beats irregularly (arrhythmia) the heart failure is worse.

DAMAGE TO THE BRAIN

When the arteries which supply blood to the brain are damaged as a result of hypertension several problems could arise, including:

Transient Ischemic Attack (TIA). Sometimes called a ministroke, a transient ischemic attack is a brief, temporary disruption of blood supply to your brain often caused by atherosclerosis or a blood clot. A transient ischemic attack is often a warning that a full-blown stroke can occur.

Stroke. A stroke occurs when brain cells die as a result of having been deprived of oxygen and nutrients. This can arise from narrowing, rupture or leakage of a



Dr. Emmanuel Sowah, Medical Superintendent, Accra Hospital, VRA Health Services Ltd.

brain artery caused by uncontrolled high blood pressure. High blood pressure can also cause blood clots to form in the arteries leading to the brain, blocking blood flow and potentially causing a stroke.

Dementia. Dementia is a brain disease resulting in problems with thinking, speaking, reasoning, memory, vision and movement. Vascular dementia is a type of dementia that results from narrowing and blockage of the arteries that supply blood to the brain. It can also result from strokes caused by an interruption of blood flow to the brain. In either case, high blood pressure may be the underlying cause.

Mild Cognitive Impairment. Mild cognitive impairment is a transition stage between the changes in understanding and memory that come with aging and the more-serious problems caused by Alzheimer's disease. Like dementia, it can result from blocked blood flow to the brain when high blood pressure damages arteries.

DAMAGE TO THE KIDNEYS

The kidneys function to filter excess fluid and waste from your blood. If the blood vessels in and leading to your kidneys are injured as a result of uncontrolled hypertension several types of kidney disease (nephropathy) can occur. Having diabetes in addition to high blood pressure can worsen the damage.

Kidney Failure. High blood pressure is a common cause of kidney failure in which damage both the large arteries leading to your kidneys and the tiny blood vessels within the kidneys (glomeruli) make it impossible for your kidneys to effectively filter waste from your blood. The result is that dangerous levels of fluid and waste can accumulate in your body with undesirable consequences like having to have dialysis or kidney transplantation.

Kidney Scarring (Glomerulosclerosis). Glomerulosclerosis which is a type of kidney damage caused by scarring of the glomeruli (tiny clusters of blood vessels within your kidneys that filter fluid and waste from your blood) can be caused by uncontrolled hypertension and can also leave your kidneys unable to filter waste effectively, leading to kidney failure.

Kidney Artery Aneurysm. An aneurysm in an artery leading to the kidney (kidney (renal) artery aneurysm) can rupture and cause life-threatening internal bleeding.

DAMAGE TO THE EYES

Tiny, delicate blood vessels supply blood to your eyes. Like other vessels, they, too, can be damaged by high blood pressure leading to:

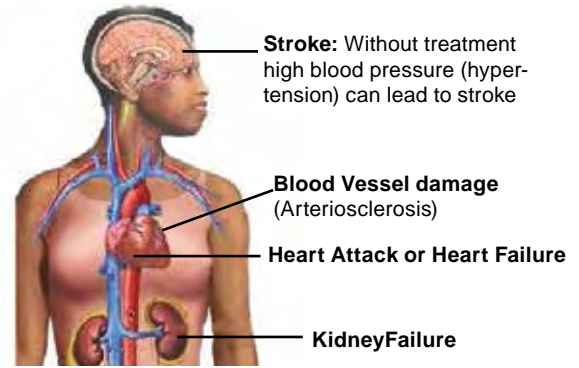
Retinopathy: This refers to damage of the vessels supplying blood to your retina, and can lead to bleeding in the eye, blurred vision and complete loss of vision. Having both diabetes and high blood pressure, increases the risk of retinopathy.

Choroidopathy: In this condition, fluid builds up under the retina from a leaky blood vessel in a layer of blood vessels located under the retina. Choroidopathy can result in distorted vision or in some cases scarring that impairs vision.

EFFECT OF HYPERTENSION

The common target organs damaged by long standing hypertension:

- Brain
- Heart
- Kidneys
- Eyes &
- Peripheral arteries



Optic Neuropathy: This is a condition in which blocked blood flow damages the optic nerve. It can kill nerve cells in your eyes, which may cause bleeding within your eye or vision loss.

SEXUAL DYSFUNCTION

Uncontrolled hypertension increases the chances of inability to have and maintain an erection (erectile dysfunction) which is common in men as they reach age 50. This results from sustained uncontrolled hypertension damaging the lining of the blood vessels and causing atherosclerosis and hence limiting blood flow. This means less blood is able to flow to the penis. For some men, the decreased blood flow makes it difficult to achieve and maintain erections — often referred to as erectile dysfunction.

High blood pressure can reduce blood flow to your vagina and can lead to a decrease in sexual desire or arousal, vaginal dryness, or difficulty achieving orgasm.

OTHER POSSIBLE DANGERS OF HIGH BLOOD PRESSURE

Bone Loss. High blood pressure can increase the amount of calcium that's in your urine. That excessive elimination of calcium may lead to loss of bone density (osteoporosis), which in turn can lead to broken bones. The risk is especially increased in older women.

Trouble Sleeping. Obstructive sleep apnea — a condition in which your throat muscles relax causing you to snore loudly — occurs in more than half of those with high blood pressure. It's now thought that high blood pressure itself may help trigger

sleep apnea. Also, sleep deprivation resulting from sleep apnea can raise your blood pressure.

HIGH BLOOD PRESSURE EMERGENCIES

When blood pressure rises so quickly and severely it may become a medical emergency requiring immediate treatment, often with hospitalization.

In these situations, high blood pressure can cause:

- Problems with your brain, marked by memory loss, personality changes, trouble concentrating, irritability or progressive loss of consciousness (encephalopathy)
- Stroke
- Severe damage to your body's main artery (aortic dissection)
- Seizures in pregnant women (preeclampsia or eclampsia)
- Unstable chest pain (angina)
- Heart attack
- Sudden impaired pumping of the heart, leading to fluid backup in the lungs resulting in shortness of breath (pulmonary edema)
- Sudden loss of kidney function (acute renal failure)

In most cases, these emergencies arise because high blood pressure has not been adequately controlled.





**Renewable
Energy**

Come Partner us to make a Huge Difference!

Our Mission:
The Volta River Authority exists
to **Power Economies & Raise**
the living standards of the
peoples of **Ghana & West Africa**

OUR VALUES

- ☀ **Accountability**
- ☀ **Commitment**
- ☀ **Trust**
- ☀ **Integrity**
- ☀ **Teamwork**

VRA Code of Ethics

PREFACE

As the Volta River Authority advances, there is the need to develop a Code of Ethics to imbue in the members of the Authority, Staff and the Authority's agents, the long held values of the Authority.

The Authority has drawn this ethical Code to assist members of the Authority, Staff and the Authority's agents who will be called upon to make decisions or act on behalf of the Authority, understand and appreciate the standard of conduct required of them and to apply this understanding and appreciation to their decisions and actions.

This Code provides guidelines on acceptable behaviour and what constitutes acceptable standards of behavior. It also states the Authority's mission, values, and standards. It is intended that the Code will sharpen our awareness, provide parameters for our actions and invigorate our

commitment to the Authority.

We hope that the Code will be useful to all employees by providing them with guidance on sensitive issues and creating an atmosphere of trust, transparency and accountability in the Authority as well as providing high standards of practice.

Management assures staff it would abide by the content of this Code and ensure its effective implementation.

The Code will be updated regularly to make it relevant to the needs of the Authority.

It is our hope that it will effectively serve the purpose for which it is intended.

INTRODUCTION

An ethical Code is a system of moral principles, values, standards or rules that control or influence a person's behavior. In the work place, it is "the set of moral principles or values which guides behaviour." The foun-

dation of ethics is honesty, transparency, and uprightness.

Within the Volta River Authority, work ethics are driven on the principle of VRA's core corporate values which are: accountability, commitment, trust, integrity and teamwork. These values constitute the dynamic guiding principles for every employee in conduct and the discharge of his/her duties.

In our collective effort to drive this great organization forward, it is imperative that staff abide by these work ethics, founded on our corporate values that duly place the Authority's interest first.

This Code shall be owned and practised by the members of the Authority, the VRA Executive, Management, Staff and agents of the Authority and shall be publicised and enforced by VRA Management.

To be Continued.

IN THE NEXT ISSUE:

- ◆ VRA Pushes for Sustainable Power Generation
- ◆ How Long Do You Want to Live?
- ◆ Interview with HR Director

Please send your concerns, questions, congratulatory messages, issues, worries, suggestions, etc., to corpcomm@vra.com

For further information/enquiries, contact
Corporate Communications Unit,
Corporate Office. Tel: +233 302 664941-9 Ext. 252, 236 & 453
PLC 724252/413/309/453. Also visit www.vra.com