



The Nigerian Society of Engineers

PORT HARCOURT BRANCH

e-newsletter

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An interview with Engr. Mrs Isigwe (FNSE) on the sustenance of Nigerian content development strategy for vision 2020.



Engr. Mrs. Isigwe

E-newsletter: You are welcome to E-newsletter Port Harcourt Branch. Before we go into our topic of today can you tell our reading audience a little bit about yourself and your contributions to the Engineering Profession?

Mrs. Isigwe: Thank you very much. My name is Mrs. Isigwe, I graduated in 1977 from the University of Nigeria Nsukka and after my national service in Nigerian Electric Power Authority now Power Holding Company of Nigeria, I joined NNPC I was the first female engineer. I joined NNPC when NNPC was just barely a year old. I started working in the plant. We designed Warri, Kaduna and Port Harcourt refineries and also operated them. I worked there for about thirteen years and then voluntarily withdrew my services in the Industry but I have been doing some project management and other contracting jobs for the industry since I left.

E-newsletter: Thank you very much Madam, your experiences in the oil and gas industry especially in the petroleum sector NNPC has exposed you to a lot and you can tell us better on Nigerian content issues. In your own opinion how can the Nigeria content development programme enhance the achievement and sustenance of vision 2020 in terms of man power development, economy and technical know how?

Mrs. Isigwe: Few years ago, when Engr. Funsho Kukpolokun was the Group Managing Director of NNPC, a young man Engr. Ernest Nwakpa made presentation at chief officer's course. In that course one of his topics was on local content development. It was on that basis that NNPC Management decided to let him carry out his vision on local content. As at that time it was found out that about \$40 billion was spent annually in the upstream sector of the industry and more than 30% of it was on engineering related activities which included procurement, design, fabrication and construction and they felt that there was a need to domesticate these activities in Nigeria and that's how local content was given birth to. You can imagine \$40 billion you know what it will do to the economy and the masses. Most of those jobs were done outside the shores of Nigeria and they wanted to domesticate those jobs so they rolled out a number of procedures and policies that will domesticate those jobs within the country. They started with engineering because they felt that there were a lot of engineers who could just be given the job and they will run with it. Therefore they wanted to start with engineering, later move on to fabrication and the rest of it and they started quite well. I will say that I am a little bit surprised really because the engineering family has not been brought into this idea that is why it looks as if it is not succeeding. But those that are not engineers are already utilizing what is on ground and they are making progress. Actually I think we should be very grateful to Nigerian National Petroleum Cooperation for starting up this kind of activity because it is really not in their purview but because they want the development of engineering that they took it upon themselves. Development of man power, engineering is not one of the cardinal things that NNPC is expected to do. But in commitment to the development of this country, they decided to contribute to the development of engineering in Nigeria that's why they embarked on these national content initiatives.

E-newsletter: Thank you very much Madam. Now looking from this perspective, a particular example was that a design for fabrication was done here in Nigeria and was sent to Italy and was later brought back to Nigeria. It was found out that the design was just as was sent, no plus no minus so it was decided that the design review would be done in Nigeria. However, the design review was not done by Nigerians but foreigners. In your own opinion what do you think COREN and NSE should do to ensure that our engineers in the operating sector can be fully involved in design?

Mrs. Isigwe: Sometimes there are number of things we apparently do not do even as nationals and that create some problems along the line. For instance, let me give you some examples it may not be completely true to say that those in the operating companies are not doing designs. You know there are job functions and if the job function is not such that they will do the design they will probably not do the design and if you look at these operating companies even in their own countries, the workers are mostly monitoring, most of those jobs are so sourced for companies because there are companies that are experienced in those areas and you know nobody would carry a job and give a company whose experience level they can vouch for. You can't just carry a job and give somebody just because of the colour of the person skin or because the person says he can do that job. He must demonstrate that that job has been done before and that is why in national content they talked about mentoring, they talked about partnership with companies that have done this job before. If you look at the South Korean example, the South Korean example is a model that we should emulate. The South Korea law states that the first time a foreigner comes to do any engineering job in South Korea you most partner with a South Korea company in the same area. However, the makeup of the company is 80% foreign and 20% South Korea. The next job you do it start graduating, you now start getting 25%/75%, 30%/70% so in that case you are gradually building up capabilities. You can only do a job by doing a job there is no way to gain experience without having to do that job and one thing we are lacking in Nigeria so far is the hands on experience and you can only get that experience by you partnering with somebody who has that experience. We shy away a number of times as engineers from what we suppose to do. We should realise that the world is all about networking. The engineer basically thinks he knows it and does not reach out to other people and the others because they know it is all about human factors they try to reach out to even the engineers and you find out that non-engineers get engineering jobs and employ engineers because somehow we still have not reached to that interpersonal relationship with people and I think that's what is missing in our curriculum. We need to go back to the universities and inculcate this networking attitude in our subjects so that when these engineers come out they will be in a better position to appreciate the dynamics of jobs in the world. Mentoring is critical in this man power development. That's all I have to say.

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Engr. Mrs. Isigwe and Dr. Ugile

E-newsletter: Before we draw the curtain, what are those tools you think will help engineers get themselves prepared, you mentioned of the University environment because there are many engineers out there that have never attended any professional training development program as a result of inadequate fund, the enabling environment is not there, universities are not even sponsoring training program, the motivation is not there. What do you have to tell us in this respect?

Mrs. Isigwe: We have discovered that the engineers even in their places of work do not interact with each other. The engineer is busy working and is not busy making friends. When the time for training comes, the administration man is watching over the training scheme that is the non- engineer. There's one that on came up in the ministry of information. I understand that in the ministry of information a number of times non-engineers were sent on training on engineering jobs, even in the ministry of labour. Factoring monitoring is being done by people who probably read history and you see it is the society that should look into all things and find out those areas that engineers are suppose to take charge and first of all make sure that engineers are administering those areas. Those engineers must as of necessities liaise with the public affairs, the administration so that they will know when these training come up because you know these things change over the decade with NEPA which is PHCN, in those days when the whites were here you cannot be a head of administration unless you are an engineer and must have done administration. You cannot head account unless you are an engineer and must have done accounting as a second degree. You cannot be head of public affairs unless you are an engineer and you've done a number of courses so you find out that in those areas most of those key positions that give the engineer opportunity to be trained are controlled by engineers and they know the implication of not doing these things. But what has happened over the years is that these things have been changed and it was caused by engineers who started giving these engineering jobs to non- engineers outside and these non- engineers have made a lot of money and they have now taken over, so you find out that we in a way have caused our problem and we need to re-trace ourselves. So let us critically sit down and look at where we have gone wrong and try to correct it.

E-newsletter: Thank you very much for the audience you have given us.

NSE PH VISITS SPDC GBARAN-UBIE OIL/GAS INTEGRATED PROJECTS

The Nigerian society of engineers Port Harcourt Branch travelled to SPDC Gbaran –Ubie oil and Gas Integrated projects on Technical visit on Saturday, February 28, 2009. The 28-member team of senior engineers and a few students led by the branch chairman Engr. Bateim Ogariawo was graciously received by a team of SPDC engineers led by Engr. B. Ezekiel-Hart FNSE. The team was taken through the overview of the entire project by Ezekiel-hart while Engr. Chris Nwachukwu and Ms Chizoma Nweke both gave comprehensive details of the process systems and the operational details of the project. Engrs, Okolocha Cyprian, Ezihel Emmanuel, Obasi Obioma, Kene Agbo, Olley Johnson, and Olukayode Akiyemi were among the team of SPDC engineers who took the team on guided tour round the site.



The construction of Gbaran – Ubie integrated oil and gas projects started in 2005 with record zero LTI (Lost Time Injury) with 948 and 11million man-hour days of continuous operational construction work. The project is in two phases with the 1st phase of gas gathering covering Kolo creek, Etelebu, Zarama, Koroama, and Gbaran fields, which is the Eastern gas gathering system of associated gas solution project. The second phase would include the Ubie fields. The main objectives of the project are:

To reduce gas flaring

To supply gas in abundance for both domestic and industrial use

The project is a Federal Government /SPDC joint partnership stake holding of 60/40 % execution and has over 6,000 Nigerians currently engaged on the project with 3,000 workers from the immediate communities.

Gbaran-Ubie project is one of SPDC and Nigerians biggest projects to deliver gas to NLNG. It is estimated to cost about \$1.4billion projected to produce 1Billion cubic feet of gas daily sufficient to generate 7.5 Gwatts of power equivalent to the total power in both England and Wales's equivalent to estimated revenue of \$1million capable of servicing over 34,000 cars with their required energy.

The site has a Manitoa customized 750 tons crane with a maximum boom length of 150m and 4 of the type in the world. Operation System

The major features of the process system include:

- . Gas dehydration
- . Gas compression
- . Oil stabilization system
- . Utilities

Associated gas gathered from oil, Non associated gas – naturally occurring gas in the well not obtained from oil.

Process: Gas in bulk line from different flow stations and locations passed through the Central Processing Facilities (CPF) then through the slug catcher (to remove solid impurities, with further cleaning enhanced by mix pad) thereafter the gas is passed through the Glycol ethylene system for dehydration (to remove water) and then the dehydrated gas is passed through a generation unit to remove the remnants of the glycol in the gas before delivering to the final end such as Soku and NLNG. The installed capacity is 120,000 bpd. The first trial gas evacuation would begin in November 2009.



NSEPH at SPDC

**NIGERIAN SOCIETY OF ENGINEERS,
PORT HARCOURT BRANCH
March, 2009 Programm of Activity**

| MONTH | ACTIVITY | DAY/DATE | TIME | VENUE |
|-----------------------|---|--|-----------|--------------------|
| M A R C H | Workshop: The use of Engineering software for analysis and Design AutoCad 2009 | Monday 16 th – 28 th Sat | 9am – 5pm | Branch Secretariat |
| | Symposium: The effect of Corrosion on Engineering facilities & infra-structures | Thursday 26 th | 5.00pm | Branch Secretariat |

Sign: ENGR. Denis A. A. Dania, MNSE, General Secretary

NOTICE! NOTICE!! NOTICE!!!

All members of NSE PH should pay their **annual branch dues** of N4000 and **compulsory levy** of N5000 towards the Engineer Resource Center to UBA ACC. NO: 080208000194 (Port Harcourt main Branch). Also pay **National Annual Subscription** of N5,500.00 directly to AFRIBANK ACC No. 1420202215613 & forward all tellers to the secretariat for reconciliation. All payments should be made at the Bank