

LEGISLATIVE POLICIES AND REGULATORY FRAMEWORK IN ENHANCING LOCAL TRAINING AND CERTIFICATION IN OIL AND GAS INDUSTRY

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**BEING A PAPER PRESENTED AT THE LEARNING MANAGERS WORKSHOP OF OIL/GAS AND
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PRESENTATION OUTLINE

- ▶ **Overview of the Nigerian Oil and Gas Industry**
- ▶ **The Operational Phase of the Oil and Gas Industry**
- ▶ **Relevance of Training and Certification for the Oil and Gas Worker**
- ▶ **Regulatory Framework Supporting Local Training and Certification in Nigeria**
- ▶ **Challenges Facing Training and Certification for the Oil and Gas Industry**
- ▶ **PTI as a Destination of Choice for Training and Certification in Oil and Gas Industry**
- ▶ **Conclusion**
- ▶ **Recommendations**

Overview of the Nigerian Oil and Gas Industry

- ▶ Since the 1960s till date, the Nigerian Oil and Gas Industry have continued to play a key role in the country's economic growth and development.
- ▶ In terms of structure, the industry is broadly divided into:
 - Upstream sector,
 - Downstream sector, and
 - Services sector.
- ▶ However, a distinction now includes the Mid stream that covers the processing, storage, marketing and transportation of crude oil, gas, gas-to Liquids and liquefied natural gas.

Overview of the Nigerian Oil and Gas Industry- Upstream sector

- ▶ This sector is characterized by exploration and production of crude oil and gas (petroleum operations). In terms of operation the up stream sector is arranged as follows:
- ▶ **Joint Venture:** This is the standard agreement between the national oil company i.e the Nigerian National Petroleum Corporation (NNPC) and an international oil company (IOC).
- ▶ **Production Sharing Contracts:** NNPC engages the IOC or the indigenous company as Contractor to conduct petroleum operations on behalf of itself and NNPC. The Contractor takes on the financing risk.
- ▶ **Service Contract:** Under this model, the Contractor undertakes exploration, development and production activities for, and on behalf of, NNPC or the concession holder, at its own risk. Concession ownership remains entirely with the NNPC/holder, and the Contractor has no title to the oil produced.
- ▶ **Marginal Field Concession:** The Federal Government (FG), in furtherance of its Nigerian Content agenda, encourages IOCs to surrender their marginal fields for assignment to indigenous concession holders.

Overview of the Nigerian Oil and Gas Industry- Downstream Sector

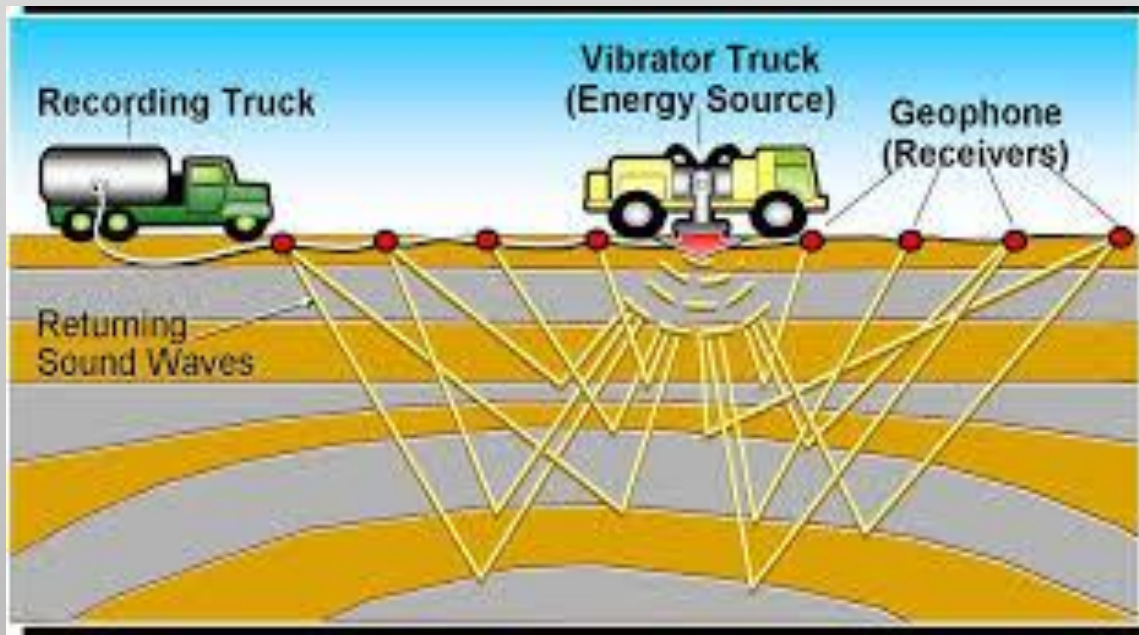
- ▶ **Transmission and Conveyance:** This involves the transportation of oil and gas to the refinery and gas stations.
- ▶ **Refining:** Nigeria has four refineries: two situated in Port Harcourt and one each in Warri and Kaduna.
- ▶ **Distribution and Marketing:** Distribution and Marketing of refined petroleum products are complementary activities. Distribution involves the transportation of refined petroleum products from the refineries through pipelines, coastal vessels, road trucks, rail wagon etc to the storage/sale depots.
- ▶ Petroleum products are supplied in Nigeria principally through the Petroleum Product Marketing Company's (PPMC) pipeline system, which links the refineries to the about 21 regional storage/sale depots.
- ▶ **Liquefied Natural Gas (LNG):** Nigeria holds the largest natural gas reserves in Africa but has limited infrastructure in place to develop the sector. Nigeria's first and most ambitious gas project, the Nigeria LNG (NLNG) facility on Bonny Island has six LNG trains currently operational with a total annual capacity of 31bcm. It has become an increasingly important supplier of liquefied natural gas (LNG) to European buyers.

Overview of the Nigerian Oil and Gas Industry- Oil Service Sector

- ▶ The classification of services under this sector is summarized as follows:
- ▶ Seismic data acquisition
- ▶ Processing and interpretation
- ▶ logging, fishing, cementing
- ▶ welding services
- ▶ Construction of oil & gas facilities
- ▶ Refinery maintenance
- ▶ Communication services etc.

The Operational Phase of the Oil and Gas Industry

- ▶ The oil and gas industry is a complex and fascinating one. Its work sites are unique and few people have the privilege of viewing them up close.
- ▶ There are three fundamental tasks in the industry: exploration (seismic operation); drilling and construction; and production, processing and off-loading.



The Operational Phase of the Oil and Gas Industry--Drilling

- **Drilling:** Once the geologist through seismic operations confirms the presence of hydrocarbon in an area (land or water), the designated spot is marked for drilling. Drilling an oil well is a massive project that involves teams of workers and specialists



The Operational Phase of the Oil and Gas Industry- Production & Processing

- ▶ **Production** is the extraction step: getting the oil or gas out of the ground and off the premises into a pipeline or cryogenic tank. In the early stages of production, the oil or gas (sometimes both) might flow of their own accord, but eventually engineers will have to coax it out—if injecting steam or gas under pressure can be called coaxing.
- ▶ **Processing** is the stage where the hydrocarbon mix goes through a number of processes to separate the various hydrocarbon fractions (roughly, gas from condensate from oils) and all from water. The processes take the fluid mixture—often at high temperature and pressure—through heat exchangers, valves, compressors and similar devices which deliver the separated components to different storage and offloading facilities.

Relevance of Training and Certification for the Oil and Gas Worker

- ▶ The oil and gas industry is one of the most lucrative fields for employment.
- ▶ Workers in this field of business generally receive sizeable salaries and numerous benefits, while at the same time enjoying frequent travel to distant locations and intellectually stimulating work.
- ▶ However, while it is true that working in the oil and gas industry does offer numerous benefits, it's important to remember that there are also many risks that come with a job in this field.
- ▶ Because of these risks to health and safety, it becomes imperative for businesses to prepare their employees for the rigours of a job in the oil and gas industry.
- ▶ Job description in the oil and gas industry are always evolving, as new technology and environmental regulation change the face of the industry and make having an educated and well-trained staff an industry imperative.
- ▶ Education and training shouldn't end when the person is hired, however. Nothing stays static, and in today's ever-changing energy environment that is more the case than ever.

Relevance of Training and Certification for the Oil and Gas Worker

- ▶ Effective training – i.e., by experienced energy professionals – can have a wide-ranging impact on the individual being trained, the company he or she works for, and the industry as a whole.
- ▶ For individual employees, continuing to learn and develop their professional skills and expand their knowledge-base can open up opportunities for advancement in their companies.
- ▶ Staying on top of best practices and growing on the job can insure that an employee will remain valuable to his or her employer.
- ▶ Productive employees are any company's biggest asset, and when they leave, they take with them years of experience, knowledge and skill. It doesn't matter what the economy is like or what is happening in the industry, retaining the best performers is essential for the success of a company. Keeping them motivated is a key factor in that.
- ▶ Investing in employees by providing them with opportunities to improve their skill level shows them their contributions are valued. That kind of investment in human capital will pay back in increased productiveness and a solid bottom line. Finally, a well-trained workforce contributes mightily to the entire industry, whose successes and failures can have a worldwide impact.

Regulatory Framework Enhancing Local Training and Certification for the Oil and Gas Industry

- ▶ In the past, training and skill acquisition for industrial workers are hardly within the contemplation of investors and government.
- ▶ Recently, there has been a rethink of the objectives of the investors and government actors in the industry, because of the spate of increase in industrial accidents resulting to impacts on humans and environment.
- ▶ It is obvious that without sound national policies and management strategies, the Nation's increasing scale of economic activity in coming decades and beyond would pose serious challenges for the Oil and Gas sector.
- ▶ The basis of any law or regulation in Nigeria is contained in the 1999 Constitution of the Federal Republic of Nigeria. Pursuant to section 20 of the Constitution, the State is empowered to protect and improve the environment and safeguard the water, air and land, forest and wildlife of Nigeria.

The Nigerian Oil and Gas Industry Content Development Act 2010 No. 2

The Nigerian Oil and Gas Industry Content Development Act (NOGICD 2010 Act) is an attempt by the government and stakeholders in the petroleum industry to ensure that the industry provides local value and maximized benefits to Nigerians.

- ▶ Specifically, the “Act” as addresses issues pertaining to:
- ▶ Employment; Social development; Security; Local currency; Encouragement of local and foreign investment; Promotion and Protection of local businesses/investments
- ▶ Patronage of local resources: human and material; Discouraging imports and encouraging exports.
- ▶ Conduct studies, researches and investigations that may further the attainment of the goal of developing Nigerian content in the Nigerian oil and gas industry;
- ▶ Organize conferences, workshops, seminars, symposia, trainings, road shows and other public education fora to further the attainment of the goal of

Nigerian Content Division (NCD) of the Nigerian National Petroleum Corporation (NNPC) Policy

- ▶ In 2005, Nigerian National Petroleum Corporation (NNPC) established the Nigerian Content Division (NCD) policy to give a formal structure to Nigerian Content issues and significantly positioned the policy for more holistic application in the industry.
- ▶ **The Thrust of the Nigerian Content Policy**
- ▶ The Nigerian Content Policy seeks to promote a framework that guarantees active participation of Nigerians in oil and gas activities without compromising standards.
- ▶ The policy also focuses on the promotion of value addition in Nigeria through the utilization of local raw materials, products and services in order to stimulate growth of indigenous capacity.
- ▶ The Federal Government is optimistic that its policy will result in steady measurable and sustainable growth of Nigerian Content throughout the oil

Petroleum Technology Development Fund Act No 25 of 1973

- ▶ The Petroleum technology Development Fund (PTDF) was established by Act No. 25 of 1973, which replaced the Gulf Oil Company Training Fund (Administration) Act, 1964 and vested in the Fund all the assets and responsibilities of the defunct Gulf Oil Company Training Fund.
- ▶ ***Purposes of the Fund***
- ▶ to provide scholarships and bursaries, wholly or partially in universities, colleges, institutions and in petroleum undertakings in Nigeria or abroad;
- ▶ to maintain, supplement, or subsidise such training or education as specified in paragraph (a) of this section;
- ▶ to make suitable endowments to faculties in Nigerian universities, colleges, or institutions approved by the Minister;
- ▶ to make available suitable books and training equipment in the institutions specified in paragraph (c) of this section;
- ▶ for sponsoring regular or as necessary visits to oilfields, refineries, petro-chemical plants, and for arranging any necessary attachments of personnel to establishments connected with the development of the petroleum industry; and
- ▶ for financing of and participation in seminars and conferences which are connected with the petroleum industry in Nigeria or abroad.

Petroleum Training Institute, Effurun Act No. 37 of 1972

- ▶ Petroleum Training Institute was set up by Act No. 37 of 1972, which was amended by Act No. 52 of 1975:
- ▶ to provide courses of instruction, training research in oil technology and to produce technicians and such skilled personnel normally required for oil production.
- ▶ To arrange conferences, seminars, and study groups related to the field of learning.
- ▶ To this end, the Institute offers regular academic programmes leading to the award of National Diploma and Higher Diploma in the following Departments: 1. Electrical Engineering 2. Instrumentation and Control 3. Electronics and Telecommunications
- ▶ 4. Power and Machine 5. Petroleum Engineering 6. Mineral Resources Engineering
- ▶ 7. Petroleum and Natural Gas Processing Technology 8. Mechanical Engineering
- ▶ 9. Manufacturing Technology 10. Power Plant Technology 11. Welding Engineering
- ▶ 12. Commercial Diving 13. Industrial Safety and Environmental Technology
- ▶ 14. Petroleum Marketing and Business Studies 15. Science Lab Technology

The Petroleum Act of 1969

- ▶ **Chapter IV – Conduct of Petroleum Activities (Article 23 -Work Practices)**
- ▶ 1. (i) conservation of Petroleum resources, which implies the utilization of adequate methods and processes to maximize the recovery of hydrocarbons in a technically and economically sustainable manner, with a corresponding control of reserves decline, and to minimize losses at the surface;
- ▶ (ii) operational safety, which entails the use of methods and processes that promote occupational security and the prevention of accidents;
- ▶ (iii) environmental protection, that calls for the adoption of methods and processes which minimize the impact of Petroleum Operations on the environment;

Tertiary Education Trust Fund Act, 2011

- ▶ This Act repeals the Education Tax Act Cap. E4, Laws of the Federation of Nigeria, 2004 and Education Tax Fund Act No. 17, 2003 and establishes the Tertiary Education Trust Fund charged with the responsibility for imposing, managing and disbursing the tax to public tertiary institutions in Nigeria.
- ▶ There is established the Tertiary Education Trust Fund (in this Act referred to as “the Fund”) for the rehabilitation, restoration and consolidation of tertiary education in Nigeria.
- ▶ The Act charges the Tertiary Education Trust Fund charged with the responsibility for imposing, managing and disbursing The Education Tax to public tertiary education institutions in Nigeria; and for related matters.

Nigerian Maritime Administration And Safety Agency Act, 2007

- ▶ regulate and administer the certification of seafarers;
- ▶ established maritime training and safety standards;
- ▶ regulate the safety of shipping as regards the construction of ships and navigation ;.
- ▶ provide search and rescue service;
- ▶ provide directions and ensure compliance with vessel security measures;
- ▶ carry out air and coastal surveillance;
- ▶ control and prevent marine pollution;
- ▶ provide direction on qualification, certification, employment and welfare of maritime labour;
- ▶ develop and implement policies and programmes which will facilitate the growth of local capacity in ownership, manning and construction of ships and other maritime infrastructure;

Challenges Facing Training and Certification for the Oil and Gas Industry

- ▶ Deficient infrastructural facilities for training
- ▶ An improved educational infrastructure is needed.
- ▶ Lack of adequate finance, insufficient pertinent technical expertise and unhelpful multi-national company's attitude are impediments that should be removed.
- ▶ Corruption and mismanagement or opaque accountability.
- ▶ Unstable and even volatile political and economic environments in Nigeria.
- ▶ Lack of appropriate training materials.

PTI as a Destination of Choice for Training and Certification in Oil and Gas Industry

- ▶ PTI since its existence has continued to take giant strides in meeting the objectives for which it was set up.
- ▶ This is in the area of training the manpower needed to operate the essential sector of the Nigerian economy which is crude oil exploration, exploitation and processing.
- ▶ To this end, the Institute offers regular academic programmes leading to the award of National Diploma and Higher Diploma in the following Departments: Petroleum Engineering and Geosciences, Petroleum and Gas Processing, Mechanical Engineering, Electrical/Electronic Engineering, Petroleum marketing and Business Studies, Industrial Safety and Environmental technology, and Welding and Underwater Operations Technology. The Institute also runs Pre-Diploma programmes in the above mentioned courses and Certificate programmes in General Welding Technology and Professional Diving Technology.
- ▶ 100 percent of the institute's programmes have been accredited by the National Board for Technical Education (NBTE).

PTI as a Destination of Choice for Training and Certification in Oil and Gas Industry

- ▶ **The PTI Consultancy Limited:** The PTI Consultancy Limited is a registered company wholly owned by PTI. This is a business outfit with a Chief Coordinator in charge. It enables us to quickly respond to openings purely on business grounds thereby eliminating the usual bottlenecks that have made doing business with most government agencies difficult.
- ▶ PTI Consultancy offers job oriented training through short and booster courses to meet the specific needs of the Oil and Gas and Allied Industry.
- ▶ There are other units within the Consult such as the Petroleum Analysis Laboratory (PAL), Conference Centre Complex,
- ▶ Printing Press
- ▶ There is also the Computer Technology Centre.
- ▶ The Institute is the nexus of the Nigerian Institute of Welding, Centre for Non-Destructive Testing (NDT).

CONCLUSION

- ▶ The Oil and Gas Industry operate in a regulatory or legislative framework that sets standards for their continued operation.
- ▶ This paper has revolved around the current situation concerning the legal and administrative framework as it concerns local training and certification in the oil and gas industry.
- ▶ This paper underlines the concerns of the infective implementation of the relevant laws and policies and suggested that the destination of choice in competent training and certification in Oil and Gas Industry is the Petroleum Training Institute (PTI).
- ▶ This paper recommends that the developed legal and regulatory framework should be fully addressed by the Nigerian government so as to promote proper and effective implementation of the Nigerian content policy which will aid in achieving industrial growth.
- ▶ The Act establishing PTDF for example should be ammended to remove the word “abroad” to encourage local development of manpower.

THANK YOU