

The way forward

Training Iraqi engineers for major oil production project

In Iraq, one of the world's three leading oil-rich countries, the first signs of economic recovery are in place, but total reconstruction and restoration of existing superstructures and infrastructures is still a long way off.

First signs of economic recovery

In the past couple of years, improved security and an initial wave of foreign investment have helped to spur economic activity, particularly in the energy, construction, and retail sectors. Broader economic improvement and a better standard of living are still dependent on the introduction of major policy reforms and the continued development of Iraq's massive oil reserves.

The Iraqi oil sector provides more than 90 % of government revenue and about 80 % of foreign exchange earnings. Since mid-2009, oil export earnings have returned to levels seen before the Iraqi war and government revenues have rebounded, along with global oil prices.

Recent contracts with major oil companies have the potential to expand oil revenues considerably, but Iraq still needs to upgrade its oil processing, pipeline, and export infrastructure for these deals to reach their potential.

Foreign initiatives

Several projects, driven predominantly by foreign companies and organizations, are being set up to help the country in its efforts to rebuild a sound economy. One such activity covering training activities for Iraqi engineers has been developed by IFP Training, a world leading company in training for professionals from the oil & gas, petrochemical and engine industries.

In July 2011, IFP (Institut français du pétrole) organized a one-month training



Participants with Patrick Leroux (front centre).

seminar in Istanbul, Turkey, for 15 Iraqi electrical/instrumentation engineers who work in the oil exploration/production sector for an OPCO (operating company) managed by BP (British Petroleum) in Iraq.

Training Iraqi engineers for major oil production project

This intensive seminar was aimed at preparing these engineers for the development of a huge oil production project in Iraq. After completing the seminar, they will be incorporated into a project team.

The participants, aged between 35 and 50, were all experienced professionals who have had to face extreme work conditions in a war economy – shortage of equipment and spare parts, lack of maintenance, followed by reconstruction. They needed this “refresher” training to be brought up to speed on a variety of aspects and issues pertaining to their area of expertise.

Intensive programme

The seminar programme designed by IFP Training was broken down into four

applied and industry-focused modules:

- Oil and gas processing, PID (proportional-integral-derivative) controller and so forth (7 days)
- Metering (4 days)
- Instrumentation and process control, safety systems (5 days)
- Electrical systems (4 days)

Patrick Leroux was one of several experts who served as lecturers for the different modules. He was in charge of the electrical systems design module. Leroux is a consultant for French oil and gas group TOTAL, Chairman of PCIC



An interpreter (right) was present.



Participants during the seminar.

Europe (Petroleum and Chemical Industry Committee) and a long-standing IECEx expert member of various IECEx working groups and committees, including the IECEx Marks Committee.

Two full days were dedicated to electrical equipment, design and construction considerations, regulations and standards in hazardous areas. This was followed by a session on safety and the various types of protection for Ex equipment.

Introducing IECEx

Leroux then spent some time on conformity assessment, introducing

IECEx, the IEC System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres, and detailing the main characteristics of the three IECEx Schemes:

- the Certified Equipment Scheme,
- the Certified Service Facilities Scheme and
- the Certification of Personnel Competence Scheme.

Benefits of international testing and certification

Leroux drew a comparison between IECEx and ATEX, the European Union Directives on Equipment and protective

systems for potentially explosive atmospheres, stressing the benefits of using a truly international system such as IECEx: reduced testing and certification costs to manufacturers, wider acceptance of certificates, faster market access, confidence in the product assessment process and in equipment and services covered by IECEx Certification. One further advantage of the IECEx System is its endorsement by the United Nations, through UNECE (UN Economic Commission for Europe) which recommends the IEC and IECEx as the world's best practice model for the verification of conformity to International Standards.

On the last day, participants completed a quiz that covered all issues addressed during the four-day seminar on electrical systems.

The evaluation sheets they filled in before their departure show that this intensive seminar was greatly appreciated and proved valuable for all attendees.

BP has scheduled similar sessions for other disciplines, such as mechanical engineering, project management, etc. About 100 engineers will be trained by IFP instructors during the next six months.

About IECEx

IECEx is the internationally accepted certification system that covers the installation, production, verification, inspection, maintenance and repair of equipment and systems used in areas where the risk of fire and/or explosions due to flammable gases, liquids and

dusts exists (Ex industries). It also allows for the assessment of the competency of personnel carrying out work such as repairs in these industries.

IECEx covers the broad spectrum of devices, systems and services

used in explosive environments, and verify their conformity to International Standards such as those prepared by IEC Technical Committee 31. Typical examples include interrupters, lamps, communication equipment and all kinds of instrumentation and rotating machines.

About IFP Training

With 90 full-time lecturers and a network of 600 consultants from the industry, IFP Training offers a wide range of training

courses for a large public, from the manager to the technician, as well as Master Degree or Graduate Diploma

programs in partnership with IFP School and consulting related to training.