Law and Energy Working Well Together

Starting quietly in the brand new amphithéâtre of the Paul Cézanne University, the eighteenth students of the Masters in Law and Energy Governance started this new course on the 4th October.

A Well Anchored Building

The building for the ITER construction site is solidly anchored 5 metres underground. Building columns are started and solidly anchored 5 metres underground. For the last two months a prototype of water filtration and rubble collection system has been tested on the ITER headquarters, as a result one or two improvements will be made such as an anti-splash screen and a pump to collect treated water so that it may be recycled back into the system. The system filters out all types of rubble but also conserves substantial amounts of water.

First Walls Going Up!

At the end of October, the first walls of the ITER headquarters were started and construction is progressing quickly at a rate of twelve metre layers per day. A few metres away, work is also under way on the construction of the walls between the supporting columns of the assembly hall of the ITER site. Two tunnels, each approximately six metres long and two metres wide, will be dug in order to separate the weight of the 25 and 100 tonne bridge cranes which will displace the ITER coils to an earthquake. The procedure is simple: a washing podium is installed and connected to a decanting basin. The weight of the ITER coils, such as those on the bridge crane, will displace the water so the 25 and 100 tonne crane will move the weight. This system is based on a washing podium which is equipped with a water basin and a water cycle to wash down the weight of the coils. The system washes down the weight of the coils and the water is recycled. As a result, a water treatment and rubber collection system for the ITER site has been developed in cooperation with the help of the Lyon company EMA. The ground is simple in simple: a washing podium equipped with a draining basin separates liquids and solids by sending the rubber waste to an agglomeration filter. For the last two months a prototype has been tested on the ITER headquarters construction site, as a result one or two improvements will be made such as an anti-splash screen and a pump to collect treated water so that it may be recycled back into the system. The system filters out all types of rubble but also conserves substantial amounts of water.

Reduced Ecological Impact

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Visits

More than a dozen new students have been welcomed to the ITER construction site since the beginning of this academic year. Visitors are constantly increasing, and a total of more than 50 people have been welcomed since the construction work started on the development of the site last May. Over the past years, more and more schoolchildren have been invited to visit this site. They can now see at first hand how scientists, engineers and technicians work at the ITER site. This is an opportunity for both pupils and teachers to learn about scientific and engineering approaches, explain the teaching staff, to become involved in the ITER project and to present themselves at the opening session, some presentations, an opportunity to express their enthusiasm to « become a legal expert in the field of energy ». More than 50 visitors have been welcomed since the start of this last autumn, more than 250 people have visited the ITER site in the past. The aim of the course is to combine work training period, several companies, develops new economic sectors and, in this way, adds value to the entire region. The founding act for the creation of a new UNESCO Chair leased 2010 by CEA and CNRS will be signed today by Dr. Ould Sidi, Director of Nuclear Energy at CEA, and the ITER Director, Dr. Ambrosio, at the ITER site. The results are expected in September 2013.

EPE Metro 2010 Prize Winner

Baptiste Regnery, student at the École Normale Supelec in Paris, was second prize for his project in a competition organized by the Association of Companies for the Environment (AIF) and the daily newspaper Métro in 2008. This student was awarded to a student from this competition for the Environment and the renovation of buildings. The project wanted to use the site of the École Polytechnique for both: to highlight the fact that the use of protective of the biodiversity can only be ensured once we are able to « take advantage of the value of the goods and services which it offers ». By 2010, the subject of the competition will be waste management.

Proopening of the IUPM/CEA Chair

The first opening of the IUPM/CEA Chair was held on 3rd March 2008. According to the IUPM/CEA Chair, the goal of the Chair is to promote the ecological management of ITER's construction site. The students are involved in the improvement of the environmental impact of the ITER project, and the studies carried out in the Chair are about the environment and its effects on the biodiversity. It is therefore a very handsome prize for students who are involved in this field. The competition is organized by the AIF and the daily newspaper Métro for the Environment and the renovation of buildings. The project wanted to use the site of the École Polytechnique for both: to highlight the fact that the use of protective of the biodiversity can only be ensured once we are able to « take advantage of the value of the goods and services which it offers ». By 2010, the subject of the competition will be waste management.
Having completed the work necessary for the development of the site, the construction phase of the biggest research center in the world of fusion science has been in full flow since the summer. The ITER Organization is now a very solid organisation of nearly 500 employees. The team unites a wide range of professions including fusion research scientists, robotics and cryogenic engineers, designers, human resources and training, information technology and safety. In their mission to create technical and scientific facilities, this team is accompanied by numerous experts (350 subcontracted employees), fusion for Energy (F4E), who in charge of the construction of all the ITER buildings and technical areas, now has around fifteen specialists working on the site, supported by 130 subcontracted personnel. On site, there are approximately 130 extra workers safety and environment co-ordinators (see Portraits), site vehicle drivers and also the core building and civil engineering professionals. Agency Ren Fraxin, which employs 25 people, has created work for a further 200 personnel through activation linked not only to the construction but also to welcoming the project: language courses, administrative formalities, accommodation services for the members of the international team.

Which jobs for 2011?
For the next nine years the ITER Organization workers should remain stable at approximately 700 employees plus the address of subcontracted personnel. Between 2002 and 2009, during the assembly and construction of the scientific facilities, there is a fast thousand workers will be subcontracted to the site. For the time being a large increase in the number of workers should be seen from next January, reaching a peak in summer 2011. This will principally concern the protonisation of industrial design and construction and civil engineering. However, positions will also be available for maintenance supervision and industrial fabrication, form setters (reinforcement and civil engineering), public works (drainage systems, roads, pipelaying, mausoleum…), maintenance, security and landscape gardeners as well as for mechanical design draughtsmen, information technology professionals, electric and electronic construction specialists, production and production control technicians and metalworkers. Positions available will be published on the PACA job Centre internet site as they arise.

Guillaume Weiss • Foreman on the ITER Headquarters construction site

Guillaume Weiss is Foreman on the ITER Headquarters construction site. Contracted to the company Alain Gras, the construction site for the future ITER headquarters (from 23.000 m2) is being managed by Guillaume Weiss in coordination with the site director, his mission is to straddle the link between the different professions: the architects, the technicians and the workforce of the subcontracted companies. As he explains, it is in a completed position needing multiple skills including the ability to understand technical specifications and comply with the aesthetic demands of the architects whilst ensuring compliance with safety standards.

Laurine Hatchiguel • Trainee from the Lille High School of Engineering

As part of the first stages of her studies, Laurine is monitoring the fitting of the win- dow-architectural which will fit the ITER headquarters building to the ground. Armed with a tape measure and a plan of the building, she repairs daily checks to ensure they are in the correct position. Having verified them, she compiles a check list which informs the subcontracted company involved if they can continue their work or if adjustments need to be made, she explains. My work has started at the same time as the construction of the headquarters. It’s an adventure for me!

Gianfranco Dassonville • Quality, Safety and Environment Coordinator

Gianfranco Dassonville’s role is to look after safety and health on site. Previously working for a professional degree as Quality, Safety and Environment Coordinator, he should complete this work-study programme with permanent possession as part of the ITER team. I visit all the companies working on the ITER Headquarters construction site every day to ensure they are respecting safety and environmental rules, he explains. This probation allows him to prepare his report back of the « co-activity meetings » with the aim to increase the efficiency of interactions between the different companies working together on the site.

Alexis Bombard • Public Works Engineer Specialised in Nuclear Civil Engineering

Fresh out of the school dedicated to Public Works for Construction and Industry, Alexis was recruited last September by Asystec, one of the four companies of the European commission in charge of project management of the construction contract for the majority of the ITER buildings. « When I arrived at Asystec, I had the ITER project in mind, he explains. My profile as a civil engineer specialising in the nuclear field convinced Engage and he will join their works management team on the 2nd of January. »

Artur Leal-Pereira • Design Engineer

« My job is to check that all the systems which will allow the ITER reactor to work correctly are operating as they should do, » explains Artur, a member of the ISIAT’s High Tech team. One of the numerous companies subcontracted by ITER, he too spent the first four days testing the interaction between ITER’s cryogenic (cooling) system and the electricity supply to the apparatus magnets. « My job is to guarantee that these systems interact correctly and, if necessary, to propose new designs to improve interactions, » he adds, « if at the stage everything is done by computer using CFD software, we have to conclude his work given no access to all the machine. » Along with the inter- nal output of ITER, this is what I look most about my job.

Simone Filicori • Quality and Safety Test Coordinator

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22 November 2010
Business Information Meeting in Cadarache

A new information meeting for companies will be organised by Fusion for Energy (F4E) on the 22nd of November in Cadarache. This conference, part of the ITER project, aims to outline the industrial strategy used in the construction of the buildings of the ITER complex and to identify new opportunities for companies working on the ITER construction site. Finally, companies will be able to attend a session of the ITER Co-Activity Meetings, who promote the sharing of experiences between the different companies working together on the site. For more information, please contact Christophe Busson (christophe.busson@iter.org) or Nathalie Brugier (nathalie.brugier@iter.org) from ITER.

Promoting Employment

Euratom’s construction site has a vast array of academic and work opportunities for ITER employees. Whether in the ITER buildings or on nearby construction sites, the ITER project creates work for both European and international companies. As an example, the main buildings of the ITER project have been awarded to four different contractors, namely Alain Gras (France), Assystem (Italy), Nucleare (Italy) and Walter Tosto (Italy). The project is expected to create work for ITER employees from all over the world, with the majority of the ITER employees recruited from French speaking countries. Of the ITER employees, 25% are French nationals, 25% are Italian nationals, 25% are Belgian nationals and 25% are British nationals. In total, the ITER project is expected to create work for 300 million Euros over the next nine years. The ITER project is expected to create work for ITER employees from all over the world, with the majority of the ITER employees recruited from French speaking countries. Of the ITER employees, 25% are French nationals, 25% are Italian nationals, 25% are Belgian nationals and 25% are British nationals. In total, the ITER project is expected to create work for 300 million Euros over the next nine years.