

EXAMEN : BACCALAURÉAT GÉNÉRAL	SESSION 2011
ÉPREUVE : Évaluation spécifique de langue en section européenne	
PHYSIQUE-CHIMIE en langue ANGLAISE	SUJET N°15

## Biggest Nuclear Reactors



In December of 1942, an experiment that would change the world was taking place at the University of Chicago. After years of research and a month of construction, the world's first nuclear reactor, Chicago Pile-1, was ready for testing.(...). A three person "suicide squad" was waiting to step in and shut the reactor down in case the reactor's safety features failed. Fortunately, the 50 people in attendance that day

were able to share a collective sigh of relief – as the squad was not needed. The reactor worked without a hitch, and the nuclear era was born.

Today, more than 400 nuclear power plants are located in 30 countries across the globe. Together, these plants produce 15 percent of the world's electricity and 2 percent of the world's total power supply. Nuclear power certainly has its pros and cons, but no one can deny its importance. (...)

"No oil, no gas, no coal, no choice." The phrase has become a mantra explaining French support of nuclear power. As instability in the Middle East forced oil prices higher and higher throughout the 1960s, France recognized a need to move away from its fossil-fuel-burning power plants. Today, the country has 59 nuclear reactors responsible for producing 76 percent of France's electricity, and two reactors located in the city of Civaux are among its largest, helping France to power not only its own homes and businesses but even export energy to neighboring countries.

*Atteberry, Jonathan. "5 Biggest Nuclear Reactors" 31 August 2009.  
HowStuffWorks.com.*

### Questions:

1. Present and comment on this document.
2. Do not forget to focus on at least one physics and/or chemistry topic as for example the way of producing electricity thanks to nuclear reactions.
3. Comment on other ways to make electricity. According to you, which one is the most ecological?