

EU Energy Policy Diary 2012

March 2013

Enhancing nuclear safety

The issue of nuclear safety continued to dominate the EU's nuclear energy policy agenda in 2012. Learning the lessons of Fukushima, enhancing nuclear safety at all the EU's nuclear facilities and applying the principle of continuous improvement were among the buzzwords that were often repeated by the protagonists who drove forward the risk and safety reassessment ("stress tests") process. This *EU Energy Policy Diary 2012* recounts the major political developments that punctuated a momentous year for the European nuclear industry.

Not a single unit shut down

In April 2012, the lengthy and comprehensive stress tests process reached a key stage in its development, with the publication by the Peer Review Board of the European Nuclear Safety Regulators' Group ([ENSREG](#)) of their peer review of the reports submitted by the nuclear regulatory authorities in the Member States. One of the main conclusions of the ENSREG report was that not a single nuclear power plant in Europe was recommended for closure, which testified to the high overall level of safety at Europe's nuclear installations. Here is a summary of the contributions made by the major protagonists to the stress tests process in 2012.

Regulators' input crucial

ENSREG's Peer Review Board, which was made up of seven senior regulators from EU countries and a senior European Commission (EC) official, carried out two types of reviews: topical reviews and country-specific reviews. The topical reviews focused on three areas: initiating events (earthquakes, floods, etc.), loss of safety functions (electrical supply, heat sink, etc.) and severe accident management. The country-specific reviews evaluated the national reports on a country-by-country basis.

The report also praised the results of the stress tests process and emphasised how important it was to learn the lessons of Fukushima. It underlined that the process had, in a number of cases, already lead to concrete measures being identified and decisions being taken to increase the robustness of nuclear plants. Among these measures were, for example, the provision of additional mobile equipment to prevent or mitigate severe accidents, the installation of more robust fixed equipment, and the improvement of severe accident management procedures and competencies.

Progress, but more needs to be done...

However, while the report acknowledged the progress that had been made, it also identified four main areas where further improvement could be achieved: guidelines had to be drawn up by the Western European Regulators' Association (WENRA) on how to assess natural hazards and safety margins, taking into account the existing International Atomic Energy Agency (IAEA) guidelines; the importance of periodic safety reviews had to be reinforced; measures to enhance containment integrity had to be implemented and the incidence of accidents resulting from natural hazards had to be minimised and their consequences mitigated.

In order to achieve these goals, ENSREG and the EC jointly agreed to propose an Action Plan at national, European and global level that was to include:

- The implementation of the recommendations of the peer review report
- The implementation of the IAEA action plan on nuclear safety
- The outcomes of the extraordinary meeting of the Convention on Nuclear Safety
- Additional site visits as agreed

In August 2012, ENSREG published its Action Plan, in which it called upon national regulators to prepare their timetabled national action plans by the end of 2012 (these national action plans will be peer-reviewed early in 2013 and the EC will publish a report on the implementation of the stress tests' recommendations in June 2014).

The EC's Communication

In October 2012, the European Commission (EC) released its much-anticipated Communication on the results of the stress tests. It recognised that the overall standard of safety at NPPs in Europe is high, but emphasised that further improvements needed to be made in order to learn and apply the lessons of Fukushima. These included improved methods for calculating the risk of an earthquake and flooding, on-site instrumentation to measure seismic activity; venting systems to enable the safe depressurisation of reactor containment; equipment for fighting severe accidents and back-up emergency control rooms.

The Basic Safety Standards Directive

Since the EC's proposal on *Human health and environment protection: basic safety standards for protection against the dangers arising from exposure to ionising radiation*, otherwise known as the Basic Safety Standards (BSS) Directive, was formally adopted in May 2012, both the Council Atomic Question Group (AQG) and the EP have been discussing the file in preparation for the delivery in 2013 of their respective views on how things should be revised. In Council, the AQG has moved diligently through the various Chapters of the BSS, and in particular has raised serious concerns over the inclusion of a Chapter (9) on the environment. In parallel with the Council, the EP will also comment on the text, but has no powers of co-decision on Euratom issues. The lead EP Committee on the BSS is the Environment, Public Health and Food Safety (ENVI) Committee. The EP rapporteur is **Thomas Ulmer** (EPP, Germany), who has more than 30 years' experience in the field of radiological protection. Mr. Ulmer's draft report was published in late December 2012.

Drinking Water Directive

The initial Proposal for a Council Directive laying down requirements for the protection of the health of the general public with regard to radioactive substances in water intended for human consumption, more conveniently referred to as the linked to the parent Drinking Water Directive, was published in June 2011. Basically, it set out parametric values, frequencies and methods for carrying out extensive monitoring of potential contamination from radioactive substances in order to ensure that drinking water within the EU is of optimal safety-sufficient quality. There are many regions in

Europe where the geological and hydrological features mean that significant levels of naturally occurring radioactive substances are sometimes present in drinking water. These vulnerable water systems are of primary concern to the EC.

By the end of 2011 the Council Atomic Questions Group had finalised its discussions on the dossier and full agreement was reached on the (revised) text. COREPER took note of this on 15 December 2011.

The EP rapporteur on this topic in the ENVI Committee is **Michèle Rivasi MEP** (Greens/European Free Alliance, France). The ITRE Committee already offered its opinion. FORATOM discussed the topic with various MEPs in both the ENVI and ITRE Committees (the EP is not expected to adopt its Opinion on the Proposal before March 2013).

Revision of the Safety Directive

In December 2012²⁰¹¹, the EC launched a public consultation period to canvass the views of stakeholders on the need for additional nuclear safety legislative measures and to identify areas where the existing nuclear legislation could be further reinforced. It ran until February 2012. The EC has evaluated the feedback received and taken follow-up action.

Focus on new build

Of course, 2012 was not only about nuclear safety. Nuclear new build continued to feature high on the political agenda. In spite of the phase-out policies pursued in the wake of Fukushima in a number of EU Member States, such as Germany, Italy, Switzerland and Belgium, the overall momentum of new build across Europe was not lost. New build projects already under way in France, Finland and Slovakia continued as planned. Projects in the pipeline in other countries, such as the UK, Lithuania, Poland, the Czech Republic and Hungary, were not significantly delayed. Under the Euratom treaty, EU Member States must notify the EC of the construction of a planned nuclear plant within three months of agreeing supplier contracts. The EC approval that was given to new build projects in Lithuania and the UK helped to sustain new build momentum and sent positive signals to potential new build investors.

Visaginas gets green light

In May 2012, the Lithuanian Parliament approved by an overwhelming majority the building of the Visaginas NPP and a concession agreement reached with the Japanese company, GE Hitachi. This was followed by the publishing of a favourable Opinion on the Visaginas NPP project by the EC. The construction of the Visaginas NPP is expected to start in 2015 and it is scheduled to go online in 2020-2021. The receipt of the positive Opinion was a crucial step in the process as it meant that the EC considered the construction project to be consistent with the objectives of the Euratom Treaty and would contribute to security of energy supply in the Baltic region. In addition, the endorsement of the project enabled Lithuania to apply to receive EU funding through the Euratom Treaty's loan facility and via the European Investment Bank (EIB).

Hinkley Point C favourably received

Similarly, in July, the EC gave the green light to the Hinkley Point C construction project in the UK. Hinkley Point C is the first of four European Pressurised Reactors (EPRs) that EDF Energy is planning to build in the UK. A month later, EDF Energy announced that the British Environment Agency (EA) had given a positive assessment on three main environmental permits required to operate the proposed new British NPP. These permits are: a *Radioactive Substances Regulation Environmental Permit*, a *Combustion Activity Environmental Permit* and a *Water Discharge Activity Permit*. Once again, these formalities represent significant progress on the road to the successful conclusion of a new build project.

Roadmap follow-up

Throughout 2012 work continued on the EC's long-term energy plans, in particular with the *Energy Roadmap 2050* and the *Low-carbon Roadmap 2050*. In May 2012, the European Economic and Social Committee (EESC) gave its Opinion on the *Energy Roadmap 2050*. It welcomed the Roadmap's objective of providing a framework for implementing policy aimed at decarbonising the EU's energy sector and agreed both with the Roadmap's analysis of the main challenges and opportunities that need to be addressed and with its alternative energy scenarios approach. The EESC also recommended that a civil society forum be set up to involve European citizens in the crucial dialogue on energy transition, but expressed its disappointment at the slow speed of progress.

A stable policy framework

In June 2012, the Danish Presidency of the European Council adopted its Conclusions on the EC's Communication on the *Energy Roadmap 2050*. The Council welcomed the guidance that the Roadmap gave for the development of a long-term and stable policy framework. It agreed with the "technology neutral approach," the "diversity of scenarios" that it proposed and the need for creating an improved investment framework. In July, the EP's Industry, Research and Energy (ITRE) Committee debated a report on the *Energy Roadmap 2050* put forward by MEP **Niki Tzavela** (Europe of Freedom and Democracy Group, Greece).

Non-binding Resolution

Back in February 2012, the EP's Environment, Public Health and Food Safety (ENVI) Committee had drafted an own-initiative report (the Rapporteur was **Chris Davies** MEP, Liberals and Democrats, UK), which provided the basis for its Opinion on the *Low-carbon Roadmap 2050*. In June, the EP adopted a non-binding Resolution on the *Low-carbon Roadmap 2050*. The EESC also adopted its Opinion on the *Low-carbon Roadmap 2050*, endorsing it as a basis for policy-making that will help provide a framework for legislation that will shape how the EU invests in its industrial future.

ENEF developments

Following the adoption of the Radioactive Waste Management Directive in the summer of 2011, the European Nuclear Energy Forum's (ENEF) Sub Working Group (SWG) on Radioactive Waste decided to develop guidelines to help Member States to comply with the Directive, and in particular with articles 11 and 12, which specify the contents of the national programmes (NAPRO) that need to be put in place. In September 2012, a *NAPRO Workshop* was organised by the EC, in Brussels, to present the guidelines. It was attended by almost 100 participants from the Member States' ministries dealing with radioactive waste management issues, as well as by radioactive waste management organisations and the nuclear industry in general. During the workshop, examples of national programmes were provided by different stakeholders and specific elements to be developed were discussed (e.g. inventories, transparency policy, cost assessments and financing, concepts or plans, technical solutions, etc.).

Focus on the future

In December a joint meeting of the three ENEF WGs, Risks, Opportunities and Transparency, took place, in Luxemburg. The main objective of the joint meeting was to discuss the achievement of ENEF to date and reflect on the future course and direction of the Forum. It was recommended that such joint meetings of the three ENEF WGs should take place on a regular basis. The three WGs also scheduled separate meetings to review progress with their respective activities.

Harmonisation of design licensing

During 2012, ENEF also worked on the possible harmonisation of the "approval of reactor designs" process within the EU. This work was carried out by the European Reactor Design Approval (ERDA) Core Group, which presented a report on the subject during the ENEF plenary in May 2012. The report was endorsed by the Risks WG in September 2012 and by the Opportunities WG in October 2012. It was then sent to ENSREG, which will present it to its members during a meeting in March 2013. It will be then up to the EC to decide whether or not to follow up on this issue.

In May 2012, on the occasion of the European Nuclear Energy Forum's (ENEF) Plenary Meeting in Bratislava, Slovakia, the European nuclear industry published a statement on the outcome of the stress tests process and restated its commitment to the principle of continuous improvement.

Financing

EIB Energy Lending

From October to December 2012, the European Investment Bank (EIB) held a public consultation on its Energy Sector Lending Policy. The lending policy of the EIB is set out in three documents: *Clean Energy for Europe*, the *EIB Energy Review*, and *EIB and the Financing of Nuclear Energy*. The policy should be revised in 2013.

ENEF's contribution to PINC

In June 2012, ENEF's Financing Models SWG met for the first time in over a year in order to investigate how it could provide input to the EC's next Nuclear Illustrative Programme of the Community (PINC). In particular, the Financing Models SWG discussed issues related to the investment needs for both long-term operation and new build projects. The Financing Models SWG also looked at how to re-launch the dialogue with financial institutions and the EC in order to facilitate investments in the electricity sector, among others, as part of DG Energy's Investor's Dialogue process.

Innovative financing

In October 2012, the Financing Models SWG focused its attention of innovative financing of nuclear new build projects, in particular the preparation of a report revisiting the issue of the financing of nuclear investments in the EU. The Financing SWG published a paper, adopted at the ENEF Plenary in May 2011, entitled: *Innovative financing for the deployment of new nuclear power plants and development of next generation*. It highlighted the need for a large-scale deployment of nuclear power plants between now and 2050, and how the construction of these plants could be financed. The 2nd report is expected to be completed in time for adoption by ENEF's Opportunities WG and for delivery to the ENEF Plenary, which will take place in Prague, in May 2013.

Decommissioning

In 2006, the EC published a Recommendation on the management of financial resources earmarked for the decommissioning of nuclear installations in EU Member States. The Recommendation provided Member States with guidelines on how to implement these funds. In 2007, the EC adopted a second Report (the first was in 2004) to the EP and the Council assessing how the Member States had so far managed their decommissioning funds and evaluating whether the accumulated funding had been used adequately. This process of assessment and evaluation is an on-going one and in 2012 the EC began drafting its third Report on decommissioning funding, which is expected to be published in the first quarter of 2013.

In 2011, the EC published a Proposal for a Council Regulation providing an extra €500 million of decommissioning funding support for Slovakia, Bulgaria and Lithuania. This was done in order to help them respect the commitment they made, as a pre-condition to joining the EU, to decommission nuclear units at Bohunice NPP, Kozloduy NPP and Ignalina NPP, respectively. In July 2012, MEP **Giles Chichester** (ECR, UK), the EP's ITRE Committee rapporteur for the Proposal, published an own-initiative Report on the Proposal that was discussed by the ITRE Committee in October 2012. The EC's Proposal should be adopted by the EP in 2013, once it has been approved by the Budgetary Control Committee.

Internal Market Communication

In November 2012, the EC published a Communication assessing the state of play of the EU's internal energy market, which is scheduled to be completed by 2014. The Communication encouraged Member States to step up their efforts to promote the internal energy market highlighting the benefits that a truly integrated European market will bring to citizens and business. The EC stressed its desire to work with Member States to empower consumers and to phase out the state interventions that often distort markets.

The Communication also identified the need for further action in a number of areas including consumer protection, enforcing the existing rules and investing in the modernisation of energy infrastructure. Although there was no specific reference in the Communication to nuclear energy, what most interested the nuclear industry was its implication for investments in nuclear new build.

Horizon 2020: focus on research

In November 2012, the EC presented a package of measures to boost research, innovation and competitiveness in Europe. It is called *Horizon 2020* and proposes an €80 billion programme for investment in research and innovation to cover the period from 2014 to 2020. *Horizon 2020* will combine all research and innovation funding historically provided by the [Framework Programmes for Research & Technical Development](#), the innovation-related activities of the Competitiveness & Innovation Framework Programme ([CIP](#)) and the European Institute of Innovation and Technology ([EIT](#)). The Euratom Programme, which covers the period 2014-2018, should receive €1.79 billion million. This will be allocated to fission research, fusion research, and the EC's Joint Research Centre (JRC) research programmes. The overarching objective of this flagship initiative is to help secure Europe's global competitiveness by stimulating growth and creating new jobs in Europe. It will also strengthen the EU's industrial leadership when it comes to innovation.

Public opinion

During the course of 2012 there were a number of national polls carried out in Europe. Most of them confirmed that public acceptance of nuclear had, on the whole, held up quite well following an inevitable dip after Fukushima. Indeed, in some cases it recovered and, in the UK, was actually at a higher level twelve months after the accident than it had been before it occurred. From an EU institutions perspective, however, nothing significant happened in 2012 because the joint EU-wide *Eurobarometer Survey* combining separate nuclear safety and waste management surveys, which was to have been published at the end of last year, was postponed. No indication was given as to when the *Eurobarometer* might be rescheduled.