



# NUCLEAR SECURITY SUMMIT 2014

## NATIONAL PROGRESS REPORT

### FRANCE

Since the Seoul Summit in 2012, France has been very active to fulfil its commitments and, in so doing, to continue bringing a significant contribution to the global nuclear security régime through its actions in all the areas covered by the Nuclear Security Summit.

#### 1) SUPPORT FOR MULTILATERAL INSTRUMENTS (CPPNM, ICSANT E.O.)

Among the commitments taken at the Seoul Summit in 2012, France had endeavored to ratify the 2005 Amendment to the Convention for the physical protection of nuclear material (CPPNM) and the International convention for the suppression of acts of nuclear terrorism (ICSANT).

These two international instruments have been ratified by France as follows:

- The 2005 Amendment on the CPPNM on February 1<sup>st</sup>, 2013; and
- The ICSANT on September 11<sup>th</sup>, 2013.

#### 2) STRENGTHENED NATIONAL NUCLEAR AND RADIOLOGICAL MATERIAL SECURITY SYSTEM, INCLUDING MEASURES TO SHOWCASE THE EFFECTIVENESS OF THE NUCLEAR SECURITY EFFORTS

The French legislative and regulatory framework on the physical protection and control of nuclear materials, facilities and transportation has been revised in depth since 2009, through distinct successive steps. An IPPAS mission was completed in late 2011 and concluded about the robustness of the French nuclear security regime. A law on strengthening the legal means to fight against the proliferation of weapons of mass destruction was adopted in March 2011, in order to criminalise new acts and introduce harsher sentences.

This step was followed by the above-mentioned ratifications in 2013 that have strengthened even more the French nuclear security regime. This progressive consolidation will be continued, as further pieces of legislation are to be adopted in 2014 or 2015 to complement the French legal corpus on the security of radioactive sources.

Moreover the French regulatory framework, including its Design Basis Threat (DBT) is regularly reviewed and updated to respond to the evolution of the threat.

As part of the implementation of the new regulation on physical protection and control of nuclear materials, facilities and transportation, the operators are to fully re-evaluate the physical protection of their facilities and, if needed, to upgrade the means and measures for nuclear security to fulfill the new regulatory requirements. The Ministry of Ecology, sustainable development and energy (MEDDE), with the assistance of its technical support the Institut de radioprotection et de sûreté nucléaire (IRSN), will assess all of these security studies.

As part of the constant enhancement of the national nuclear security regime, the various French bodies involved in nuclear security work on the basis of a continuous improvement of their policies, practices and interagency mutual coordination.



### 3) CONTRIBUTION TO AND USE OF THE IAEA'S NUCLEAR SECURITY-RELATED ACTIVITIES AND SERVICES

France remains supportive of the Agency's activities in the field of nuclear security. In 2012 and 2013, its contributions amounted to approximately 700 000 euros each year, that is to say 1.4 million euros since 2012. The French contribution since 2010 therefore reaches 2.8 million euros.

France has organised seminars on nuclear security, and especially the First International Seminar on IPPAS missions in Paris, on December 4<sup>th</sup> and 5<sup>th</sup>, 2013 in cooperation with the IAEA. French experts have also actively contributed – and still contribute – to the activities of the Agency, mainly for the elaboration of the guidance of the Nuclear Security Series (NSS), as lecturers in IAEA training courses and workshop, and as experts in IPPAS missions. Experts from the Commissariat à l'énergie atomique et aux énergies alternatives (CEA) and the IRSN took part in three IPPAS missions in 2012, two others in 2013 and already one in 2014.

France will put at the Agency's disposal a cost-free expert from the IRSN for a new two-year period from March 1<sup>st</sup> 2014 to March 2016 to provide the IAEA with the necessary expertise to carry out peer reviews – especially IPPAS missions.

France contributed further to other important activities of the IAEA in 2012 and 2013 in many fields such as:

- The improvement of security culture (i.e. consultant meeting and development of training modules aimed in particular at assisting the IAEA with the continuous development of its nuclear security culture programme);
- Crisis management (i.e. consultants meeting on developing a guide on radiological crime scene management);
- Physical protection of nuclear materials and facilities (i.e. consultant meeting on developing an implementing guide on physical protection of nuclear materials in use and storage and nuclear facilities);
- Security of materials being transported (i.e. technical meeting on physical protection of nuclear materials during transport);
- Security of radioactive materials (i.e. technical meeting on radioactive sources security);
- Accountability and control of materials (i.e. consultants meeting on nuclear materials control); and
- Cyber-security (i.e. technical meetings on computer security peer reviews, on the revision of a document on computer security in nuclear facilities, consultants meetings on taking into account current or emerging cyber threats in the nuclear security planning or on the evaluation of cyber threats for nuclear facilities and on the revision of the guide on computer security peer reviews).

France also funded the translation into French of the following IAEA documents of the Nuclear Security Series:

- NSS 8: Preventive and Protective Measures against Insider Threats;
- NSS 9: Security in the transport of radioactive material;
- NSS 10: Development and maintenance of a DBT; and
- NSS 11: Security of radioactive sources.

As announced at the Washington Summit in 2010, France requested the IAEA to conduct an International Physical Protection Advisory Service (IPPAS) mission which successfully allowed to review the French regulatory framework and its implementation in its nuclear power plant of Gravelines in November 2011. France is now considering to ask the Agency for a follow-up mission to build on the results of the one carried out in 2011.



#### 4) SUPPORT FOR NUCLEAR SECURITY-RELATED INTERNATIONAL ACTIVITIES

Under its G8 Presidency in 2011, France regarded nuclear security as a priority and strongly promoted the extension of the G8 Global Partnership beyond 2012. France remains involved in this initiative, through its support plan to the IAEA renewed in 2011 and 2014. Through this document, France and the IAEA cooperate to identify, secure and – if need be – repatriate – radioactive sources of French origin exported abroad notably thanks to G8 Global Partnership funds. These funds are also to be employed in 2014-2015, for assistance actions to third States (such as seminars, trainings, workshops etc.) in the field of nuclear and radiological security.

France also participates in the Global Initiative to Combat Nuclear Terrorism (GICNT), including its three working groups addressing NSS priorities in nuclear detection, nuclear forensics and response / mitigation. France has contributed to the elaboration and reviewing of the Exercises, Training and Awareness Document.

France also works in the context of the 1540 Committee, offering assistance to third States and contributing to international workshops and seminars on nuclear security – such as the one organised by UNODA and Kazakhstan in Astana on March 11<sup>th</sup> and 12<sup>th</sup>, 2014. The French assistance in this context is mostly focused on the legal and regulatory infrastructure and experience for fulfilling the relevant provisions of UNSCR 1540. France also remains eager to organise an international conference on assistance as soon as the appropriate funding will have been provided to the UNODA.

#### 5) CONTRIBUTION TO MINIMISATION OF SENSITIVE NUCLEAR MATERIALS

Since the Washington Summit in 2010, France has been cooperating closely with other countries to develop high-density low-enriched uranium (LEU) fuel powder production technology as an alternative to highly-enriched uranium (HEU) for research reactors. The scientific and technical research undertaken up to now has led to significant progress, but efforts remain to be accomplished to develop an economically and technically viable technology. France remains committed to this international effort.

France also remains supportive of the ongoing efforts to minimise the use of HEU in the production of the medical radioisotopes wherever technically and economically feasible. As a leading country involved in the supply chain, it also shares with its European partners a collective responsibility to ensure a reliable and uninterrupted supply of the medical radioisotopes urgently needed for diagnoses.

Accordingly, the French company CIS-bio International, a subsidiary of IBA Molecular, obtained the relevant adjustments in their market authorisation to distribute in Europe LEU based Molybdenum 99. It has already distributed its first productions of Tc-99m generators using South African LEU based Molybdenum 99.

#### 6) CAPACITY BUILDING AND CENTERS OF EXCELLENCE

France continues to support and offer its expertise to the European Union Centers of Excellences on CBRN risk mitigation. One project is currently being implemented in North Africa. It focuses on nuclear security.

France, through the CEA, has also signed an agreement with the Indian Center of Excellence GCNEP which includes cooperation in training and research and development in the field of nuclear security. The concrete phase of the implementation of this Center of Excellence has started on January 3<sup>rd</sup>, 2014.

#### 7) ENHANCED EFFORTS TO COMBATING ILLICIT TRAFFICKING IN NUCLEAR AND RADIOLOGICAL MATERIALS

Within the framework of the GICNT Nuclear Forensics WG activities, France has actively participated in the elaboration and the reviewing of the “Fundamentals for Policy and Decision Maker’s Document” which has been approved during the 2012 Mid-Year Implementation and Assessment Group (IAG) Meeting last February in Marrakech.



France was also involved in seminars on illicit trafficking, such as the one organised by the United States in Karlsruhe (Germany) from February 11<sup>th</sup> to 13<sup>th</sup>, 2014.

## 8) STRENGTHENED COOPERATION BETWEEN GOVERNMENT AND NUCLEAR INDUSTRY

The competent authorities continue the dialogue with the nuclear industry in particular to promote the nuclear security culture (for example by contributing to the training of the security managers of the facilities), to ensure the sharing of experience amongst operators as well as to facilitate, in particular through guidance, the understanding and implementation of new requirements (for example cybersecurity).

Whenever relevant, the nuclear industry may be consulted on the new laws and regulations as part of the regulatory process.

## 9) SECURING RADIOACTIVE MATERIALS

The legislative and regulatory framework related to the security of radioactive materials is under revision and should be updated soon with a new legislation on the security of radioactive materials.

France carries out an initiative to locate all disused sealed radioactive sources of French origin in the world which have the potential to cause serious radiological consequences if they are involved in accidents or malicious acts.

France has finalised in 2011 an arrangement with the IAEA to facilitate the securing or repatriation of the most vulnerable sources. Thanks to this framework, repatriation operations have successfully been carried out in 2011 in Madagascar and in December 2013 in Sudan. Operations of this kind will be supported, as already mentioned, by French G8 Global Partnership funds over the coming years in various countries in Africa and Asia.