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#### REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

on the implementation of the

## **Instrument for Nuclear Safety Cooperation**

Second Report - Annual Action Programmes for 2010 and 2011

{SWD(2012) 436 final}

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### **SUMMARY**

This Report and the accompanying Document to this Report relate to all Instrument for Nuclear Safety Cooperation's (INSC) Annual Action Programmes (AAPs) since 2007 that are still on-going in 2010 and 2011. It also describes the developments with respect to the AAPs 2010 and 2011.

The Instrument for Nuclear Safety Cooperation (INSC 2007-2013) came into force on 1 January 2007. Its main objectives are to support the promotion of a high level of nuclear safety, radiation protection and the application of efficient and effective safeguards of nuclear material in non-EU countries, worldwide.

In 2010 and 2011, the INSC programme continued the nuclear safety cooperation initiated with the countries of the former Soviet Union under the TACIS (Technical Assistance to the Commonwealth of Independent States) program (see Art. 18 Report 2007-2009)<sup>1</sup>, but it had its geographical coverage extended to become global. The Indicative Programme for 2010-2011 and the Annual Action Programmes (AAP) for the respective years were adopted by the Commission taking into account the opinion of the INSC Committee.

The main goals of INSC over the period 2010-2011 were strengthening the regulatory authorities in the Beneficiary Countries, to promote an effective nuclear safety culture at all levels and to improve the safe and responsible management of spent fuel and radioactive waste.

Cooperation in the domain of nuclear safety was progressively re-oriented towards a greater involvement with third countries' nuclear regulatory authorities as well as to radioactive waste management and site remediation. In this respect, the continued efforts on the remediation of legacy uranium mining and processing sites in Central Asia should be highlighted.

Following the Fukushima-Daiichi accident, the Commission invited countries covered by the EU Neighbourhood Policy to participate in the discussions aimed at extending the comprehensive risk and safety assessments ("stress tests") of operating nuclear power plants (NPPs), including a peer review of national reports, since it was considered that some of these countries might benefit from cooperating with the Commission, in the framework of the INSC, in carrying out the exercise. Ukraine decided to follow the same schedule as for the stress tests within the European Union without requiring INSC support. Armenia requested technical support to carry out the tests, which was included under the INSC AAP 2011 part II.

The main developments on nuclear safety cooperation and assistance provided under the INSC in 2010 and 2011 are described in the Report below. Further details on the projects under the Action Programmes from 2007 to 2011 are provided in the Commission Staff Working Document accompanying this Report.

<sup>1</sup> 

Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the implementation of the Instrument for Nuclear Safety Cooperation – First Report – Annual Action Programmes for 2007, 2008 and 2009

## 1. INTRODUCTION

This Report is submitted to the European Parliament and the Council, and addressed to the Economic and Social Committee and to the Committee of Regions, in compliance with the reporting requirement set out in Article 18 of Council Regulation (EURATOM) N<sup>o</sup> 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation<sup>2</sup> referred here below as the INSC Regulation.

To address the safety concerns raised by Member States after the Chernobyl accident, in 1991 the Commission launched the nuclear safety component of the TACIS programme. Between 1991 and 2006, more than €1.3 billion were committed to nuclear safety projects.

Since 2007, the EU's nuclear safety assistance and cooperation activities continued under the Instrument for Nuclear Safety Cooperation (INSC)<sup>3</sup>. The INSC has introduced a number of changes compared to the TACIS Nuclear Safety Programme which are worth noting.

First, the geographical coverage was no longer limited to the states of the former Soviet Union. It applies to *third countries* worldwide. This allows the Commission's experience gained under the TACIS<sup>4</sup> programme to be used elsewhere to address the needs of emerging countries, as well as countries with established nuclear power programmes in need of nuclear safety improvement, in particular those with rapidly expanding nuclear programmes. In 2008, the Commission announced its broad strategy in a Communication to the Council and Parliament<sup>5</sup>.

In view of the potential needs for nuclear safety cooperation worldwide, the EU Council proposed a set of criteria to be observed when considering projects with new countries<sup>6</sup>. The Commission took these criteria into account in its revised INSC Strategy for 2010-2013<sup>7</sup> which defined also geographical priorities.

Second, the TACIS programme focused on nuclear safety *assistance* including, in many cases, supply of equipment ("hard assistance"), whereas the INSC objective is enhanced *cooperation* with a view to improving nuclear safety including the supply of equipment only

<sup>&</sup>lt;sup>2</sup> Art. 18 of the INSC Regulation requires that 'The Commission shall examine progress achieved in implementing the measures undertaken pursuant to this Regulation and shall submit to the European Parliament and the Council an annual report on the implementation of the assistance. The Report shall also be addressed to the Economic and Social Committee and to the Committee of Regions. The Report shall contain information relating to the previous year on the measures financed, information on the results of monitoring and evaluation exercises and the implementation of budget commitments and payments, broken down by country, region and cooperation sector'.

<sup>&</sup>lt;sup>3</sup> Council Regulation (Euratom) No 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation (OJ L 81, 22.3.2007, p. 1).

<sup>&</sup>lt;sup>4</sup> TACIS (Technical Assistance to the Commonwealth of Independent States) was the European Commission Programme to assist 12 countries of Eastern Europe and Central Asia (Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, the Russian Federation, Tajikistan, Turkmenistan, Ukraine and Uzbekistan) and Mongolia in their transition towards democratic marketoriented economies.

<sup>&</sup>lt;sup>5</sup> See the Communication "Addressing the international challenge of nuclear safety and security" (COM (2008) 312 final, 22 May 2008

<sup>&</sup>lt;sup>6</sup> Council Conclusions on assistance to 3<sup>rd</sup> countries in the field of nuclear safety and security, 9 Dec. 2008. <u>http://www.consilium.europa.eu/uedocs/cms\_Data/docs/pressdata/en/trans/104601.pdf</u>

<sup>&</sup>lt;sup>7</sup> Revised Strategy for Community Cooperation Programmes in the field of Nuclear Safety for the period 2010-2013 (C(2009)0922)

in a limited number of cases or without supply of equipment at all ('soft assistance'). Partners are also encouraged to take a more active role in the definition, management and implementation of the programme and projects.

The Commission will continue to promote co-financing arrangements with partner organisations generally providing contributions in kind (staff) and in supplies or works (additional studies, civil works) on the basis of "a priori" detailed financing plans.

Third, the enlarged geographical scope of the INSC, compared to TACIS, increased the need for international cooperation and coordination of actions with other donors and the International Atomic Energy Agency (IAEA).

The present Report provides information on the Annual Action Programmes (AAPs) for 2010 and 2011, including projects approved until the end of 2011 and their status of implementation by mid 2012. Projects foreseen under these AAPs for which the contracting procedure had not yet been started are not mentioned.

Initial difficulties in the transition phase from TACIS to INSC, due primarily to delays in getting partner countries to sign Financing Agreements under the new format, have meanwhile been largely overcome, with the exception of the Russian Federation and Brazil.

## 2. INSC IMPLEMENTATION BY BENEFICIARY

In **Ukraine**, the INSC continued providing targeted support to the nuclear regulator and the NPP operator in improving nuclear safety. It continued also to provide support to the radioactive waste management and nuclear safeguards in general. Ukraine remained the main beneficiary of INSC programme. The Chernobyl Shelter Fund (CSF) received additional funds in 2010 and 2011 in order to complete the New Safe Confinement by 2015.

In the **Russian Federation**, projects initiated under the TACIS programme continued under the INSC, but no new projects were possible since a suitable cooperation framework could still not be agreed. Discussions continued to explore possibilities to resume cooperation activities with a reduced scope, but to no avail.

In **Armenia**, important projects were launched concerning the Medzamor Nuclear Power Plant to address urgent safety issues while the plant is operating. However, the Commission continued to maintain the position that the plant cannot be upgraded to modern nuclear safety standards and therefore should be closed down and decommissioned as soon as possible. Projects provided for training of human resources, assistance to the nuclear regulator and development of a radioactive waste management strategy in preparation for future NPP decommissioning.

In **Belarus** and **Georgia**, cooperation continued with relatively small projects supporting both countries' nuclear regulators as well as projects on radioactive waste management in Georgia. For Belarus, discussions took place to step-up the cooperation with the regulator in order to improve its capabilities in anticipation of the construction of a nuclear power plant in the country.

A regional project aiming at creating a legislative and regulatory framework for the remediation of uranium mining legacy sites in Central Asia was agreed. Cooperation projects with **Kyrgyzstan**, **Tajikistan and Uzbekistan** are aimed at the remediation of various uranium production legacy sites, and there is a cooperation project with **Mongolia** aimed at establishing a regulatory framework for uranium mines and milling operations and training.

The Programme was extended to new countries in three regions:

Countries covered by the **European Neighbourhood Policy**: the cooperation projects under INSC provided support to nuclear regulators; capacity building projects were launched in **Egypt, Jordan** and **Morocco**. However, the political events (Arab spring), among others, have delayed the process. A project on building capabilities in decommissioning, site and radioactive waste management started in **Iraq** (under the Instrument for Stability). This work will be extended, as foreseen in AAP 2011, through a project to establish the safe disposal of radioactive waste from various closed-down nuclear installations.

**South-East Asia**: Projects to support regulatory authorities were approved for the **Philippines** (not yet initiated) and **Vietnam** (started in mid-2012). A proposed project concerning Malaysia was deferred to AAP 2012.

**Latin America**: Projects were launched with the nuclear safety regulator and the operator in **Brazil** under AAP 2009 and 2010 (the AAP 2010 Part II Financing Agreement concerning the nuclear operator project was not signed by the Brazilian authorities by end 2011, as required, the project had therefore to be cancelled). Contacts were also established with **Mexico** and **Argentina**, and the first visits took place in 2010. For Mexico, a project to support the nuclear

regulator as well as a project to develop a policy and strategy for the management of spent fuel and radioactive waste were approved under AAP 2010 and have started in 2012. However, so far, no agreement was reached concerning the possibilities for nuclear safety cooperation with Argentina.

**China:** a cooperation project with the Chinese National Nuclear Regulatory Authority and its TSO was approved under AAP 2011. It is aimed at enhancing the nuclear safety regulatory regime in China in accordance with internationally recognized standards and best practices, as well as strengthening China's preparedness for severe accidents and to assist in developing a strategy for the management of radioactive waste and spent nuclear fuel.

**Cooperation with the IAEA has been extended** to support thematic technical activities at country or regional level. Its aim was to further develop the safety culture, capacity building of regulators, waste management, research reactors safety and seismic safety.

Significant financial support was provided to the **Chernobyl Shelter Fund** (**CSF**) and the **Nuclear Safety Account** (**NSA**), managed by the EBRD on behalf of the donor countries. The stabilisation works of the existing shelter of the Chernobyl unit 4 were completed. The design of the New Safe Confinement as well as the preparation of the site for its assembly were approaching completion during the reporting period. In a Pledging Conference in Kiev in April 2011, coinciding with the commemorations of the 25<sup>th</sup> anniversary of the Chernobyl accident, the €740 million needed to complete the project were pledged. The major projects continued to progress according to the cost and schedule agreed in 2010 and their completion is foreseen for October 2015<sup>8</sup>.

<sup>&</sup>lt;sup>8</sup> TACIS nuclear safety projects on radioactive waste management were still on-going at the Chernobyl NPP site during the reporting period.

# 3. IMPLEMENTATION OF THE ANNUAL ACTION PROGRAMMES IN FIGURES

The INSC Regulation was adopted on 19 February 2007. The 2007-2013 Strategy and the first Indicative Programme covering 2007-2009<sup>9</sup> were adopted by the Commission on 8 August 2007. The Indicative Programme for 2010-2011 was approved and adopted in 2009<sup>10</sup>.

Due to the time required for the adoption of Action Programmes, on an annual basis, and the lengthy approval period by the partner countries, the implementation of most projects under INSC only started in 2009 and the implementation of most projects under AAP 2010 and 2011 was due to start in 2012.

#### Annual Action Programme for 2010 (AAP2010)

#### Allocations

AAP2010 was presented in two parts:

- Part I  $\blacksquare$ 7.7 million<sup>11</sup>
- Part II  $\pounds$ 1.627 million<sup>12</sup>

#### **Implementation highlights by mid 2012**

The Financing Agreements concerning AAP 2010 Part II projects were all signed with the exception of the one concerning the Brazilian operator (Brazil did not conclude the Financial Agreement by the end of 2011 and the respective project was cancelled). AAP 2010 Part I projects did not require Financing Agreements<sup>13</sup>.

Under AAP 2010, contracts have so far been signed with <u>Jordan</u> (a project of  $\textcircled$ 1.2 million was contracted to provide assistance related to developing and strengthening the capabilities of the Jordan Nuclear Regulatory Authority) and <u>Mexico</u> (2 projects amounting to some  $\oiint$  million were contracted concerning cooperation with the Regulatory Authority of Mexico and cooperation in the development of a policy and strategy for the management of spent nuclear fuel and radioactive waste in Mexico). Furthermore, contracts were signed for "m<u>ulti-country"</u> projects (three projects for  $\oiint$ 3.475 million to establish connecting networks to enhance communication and training systems in radioactive waste management as well as several training and tutoring activities for regulator and TSO experts) and "<u>multi-IAEA</u>" projects ( $\oiint$ 4 million contribution to support IAEA projects managed by Technical Cooperation and Nuclear Installation Safety Departments).

In December 2010, a payment of 17 million was made to the Chernobyl Shelter Fund in anticipation of the 4<sup>th</sup> EU pledge by the Commission, which was to be made in 2011.

<sup>&</sup>lt;sup>9</sup> Commission Decision C/2007/3758 of 01.08.2007

<sup>&</sup>lt;sup>10</sup> Commission Decision C/2009/9820 of 08.12.2009

<sup>&</sup>lt;sup>11</sup> Commission Decision C (2010) 4283 of 29 June 2010

<sup>&</sup>lt;sup>12</sup> Commission Decision C (2010) 8265 of 29 November 2010

<sup>&</sup>lt;sup>13</sup> Part I projects of AAP 2010 and 2011 did/do not require a Financing Agreement since they are usually managed by direct payments to i.e. international organisations. These payments require a Contribution Agreement instead.

## Annual Action Programme for 2011 (AAP2011)

## Allocations

AAP2011 was also presented in two parts:

- Part I  $\textcircled{38.7 million}^{14}$
- Part II  $\textcircled{35.9 million}^{15}$

## Implementation highlights by mid-2012

The Financing Agreements concerning AP 2011 Part II projects were being prepared or being transmitted to partner countries. They need to be signed before the end of 2012.. AP 2011 Part I projects did not require Financing Agreements.

Under AAP 2011, a contract was signed to support the operator in the implementation of the "stress tests" at the <u>Armenian</u> Nuclear Power Plant (ANPP). A second contract was signed to support the Armenian nuclear regulator (ANRA) in reviewing the operator's self-assessment report. These technical support projects amounting to some €1.8 million were being prepared for implementation. It is worth noting the fact that the Armenian government had accepted to participate in the comprehensive risk and safety assessment exercise ("stress tests") launched by the EU and joined by neighbour countries.

<sup>&</sup>lt;sup>14</sup> Commission Decision C (2011) 5784 of 17 August 2011

<sup>&</sup>lt;sup>15</sup> Commission Decision C (2011) 9268 of 16 December 2011

#### Summary table

## **Use of INSC Programme funds** (€million - situation by mid 2012)

YEAR	Funds	Contracted	Paid
	Committed <sup>16</sup>		
2010	69,327	35,908	22,940
2011	74,608	37,002	34,423

<sup>16</sup> 

Primary commitments = final commitments under AAP 2010 and AAP 2011

## 4. CONCLUSIONS

The present Report is limited in terms of achievements and impact due to the relatively early stage of implementation of the INSC programme. During the reporting period, only a few projects have been completed. Most projects are under preparation or currently being implemented.

As of mid 2012, some 50 projects under the AAPs 2007-2009 and a further 30 projects under the AAPs for 2010 and 2011 are at various stages of implementation. Several of these projects are split into a number of different sub-projects for separate contracting. Contracting documents are currently under preparation for most projects under the AAPs 2010 and 2011. All of these projects are fully compliant with the objectives of the INSC Regulation.

The enhancement of the nuclear safety culture through INSC incorporates lessons learned from the TACIS Nuclear Safety programme, while properly addressing emerging needs within a mandate no longer restricted to the former Soviet Union.

The INSC programme continued the actions initiated under TACIS, mainly in Eastern Europe but, progressively, cooperation was extended in geographical scope as well as in content. Cooperation with nuclear regulators continued to grow while that with operators was scaled down and the development of responsible management of spent nuclear fuel and radioactive waste, decommissioning and site remediation gained increasing importance. Contributions to the Chernobyl Funds continued to consume a significant part of the yearly budget, but these should end in 2013.

The geographical coverage of the programme increased steadily from four countries in 2007 to some 15 countries in 2010 and 2011, cooperation with others continued to be explored. The number of beneficiary countries was expected to reach 17 with the AAP 2012.

The INSC implementation in 2010 and 2011 is considered to be well-targeted, the approved projects well-conceived and the projects, once contracted (only a limited number had been contracted so far), were developing well. When successfully implemented, they will contribute significantly to enhancing nuclear safety and nuclear safety culture in the beneficiary countries.

The discontinuation of cooperation with the Russian Federation under the INSC in the fields of nuclear regulation, improvement of operational safety and establishment of responsible management of radioactive waste, decommissioning and remediation was a disappointing development. Considering the impact also on neighbouring countries, the fact that the Russian Federation is a major exporter of nuclear technology and the mutual benefits that would result from further cooperation between the EU and the Russian Federation, the Commission will continue to seek ways for effective and mutually satisfactory cooperation with the Russian Federation on a partnership basis.