



EUROPEAN COMMISSION

Brussels, 08.12.2009
C(2009) 9820 final

COMMISSION DECISION

**on the Indicative Programme 2010-2011 for Community Cooperation Programmes
in the field of Nuclear Safety**

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THE EUROPEAN COMMISSION,

Having regard to the Treaty establishing the European Atomic Energy Community,

Having regard to Council Regulation (EURATOM) No 300/2007 of 19 February 2007¹ (hereinafter ‘the Regulation’), and in particular Articles 3 and 4 thereof,

Whereas:

- (1) The Regulation sets out under Article 2 the criteria for the implementation of a cooperation programme in third countries.
- (2) The measures provided for in this Decision are in accordance with the opinion of the Committee provided for under Article 19 (1) of the Regulation,

HAS ADOPTED THIS DECISION:

Article I

The Indicative Programme 2010-2011 for Community Cooperation Programmes in the field of Nuclear Safety is hereby approved.

Article II

This Decision is addressed to the services of DG Budget, DG External Relations and DG EuropeAid of the European Commission.

Done at Brussels, 08.12.2009

For the Commission

[...]

Member of the Commission

¹ OJ L 81, 22.3.2007, pp. 1-10. Council Regulation (EURATOM) No 300/2007 of 19 February 2007 establishing an Instrument for Nuclear Safety Cooperation.

ANNEX

Instrument for Nuclear Safety Cooperation

Indicative Programme
2010 - 2011

Indicative Programme 2010-2011

The Community assistance in the area of nuclear safety for the period 2010-2011 will be provided through the Instrument for Nuclear Safety Cooperation (INSC)², taking into account the criteria set out by the Council on assistance to third countries in the field of nuclear safety and security³ and in line with the priority areas of support and priority geographical areas defined in the Revised Strategy for Community's nuclear safety assistance for the period 2010-2013.

The nuclear safety programme will have an indicative budget of €143 million for the period of 2010-2011. This amount will be composed of nuclear safety assistance projects to third countries, contributions to international donor funds, namely the Chernobyl Shelter Fund (CSF) and the Nuclear Safety Account (NSA) managed by the European Bank for Reconstruction and Development (EBRD), contributions to the International Atomic Energy Agency (IAEA) programmes, and INSC administrative support measures. The programme will address cooperation with European Neighbourhood - East (ENP-East) countries, in continuation of the TACIS programme, as well as cooperation initiated with third countries embarking upon or reviving civil nuclear programmes⁴, in particular in the ENP-South/Middle East region, Latin America and Asia.

Assistance to third countries which have decided to initiate civil nuclear power programmes will be mainly directed at supporting regulatory bodies and their technical support organizations in developing the necessary regulatory frameworks and methodologies and at supporting the safe management of nuclear material and radioactive waste (including existing waste).

This Indicative Programming is based on the previous experience with nuclear safety assistance provided under the TACIS Nuclear Safety Programme and under the INSC during the period 2007-2009, for which evaluations are ongoing. Indicative budget allocations to geographical areas, with the indicated type of actions, are provided in Table 1. Precise final allocations will reflect the budgeted financial resources available, the respective needs and absorption capacity of the recipient countries and the maturity of projects.

Where appropriate, consultations may take place for coordination with the implementation of the projects under the Instrument for Stability.

1. PROGRAMME COMPONENTS

The present Indicative Programme is based on the geographical areas defined in the Revised Strategy for the period of 2010-2013, and structured around the type of nuclear safety support. Assistance under the Instrument will be provided through

² 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).

³ Council Conclusions on assistance to third countries in the field of nuclear safety and security, 2913th TRANSPORT, TELECOMMUNICATIONS and ENERGY Council meeting Brussels, 9 December 2008.

⁴ As outlined in the Communication from the Commission to the Council and the European Parliament 'Addressing the international challenge of nuclear safety and security', COM (2008) 312 final, Brussels, 22.5.2008.

implementation of concrete projects agreed between the beneficiaries and the European Commission in these areas according to the modalities stipulated in Article 8 of the Regulation.

1.1. Support to nuclear regulators

Efforts will be devoted to establishing and reinforcing nuclear safety authorities and their Technical Support Organizations (TSOs) in the beneficiary countries. Nuclear regulators and related authorities need to have sufficient independence, institutional and technical competencies and expertise in order to fully perform their role in securing high levels of nuclear and radiation safety. Given the risks of insufficient regulatory frameworks and institutional capacities in the nuclear sector in the beneficiary third countries, it is important for the EU to provide assistance to the respective authorities of these countries.

During the previous periods (under TACIS and INSC from 2007 to 2009), assistance to the regulatory authorities primarily involved transferring legislation and regulatory practice used in EU Member States. The present programme will continue transferring the EU regulatory methodologies and providing institutional support, including training (in specific cases potentially also equipment and software) to the regulators in Armenia (ANRA), Belarus (GOSATOMNADZOR), Egypt (EAEA), Georgia (NRSS), Jordan (JNRC), Morocco (MEM), and Ukraine (SNRCU). New assistance in this field is envisaged for Brazil and Argentina⁵, and potentially Vietnam, as well as other third countries covered in the Revised Strategy for the period 2010-2013.

In particular, co-operation programmes will be developed with the following aims:

- Provision of training services, such as long-term training of experts in EU Member States, including participation in inspection activities and emergency exercises, as a possible way for effective transfer of knowledge and experience;
- Co-operation in safety assessments, actual licensing processes or in the process of establishment of regulations or guides by the regulator;
- Long-term presence of European experts in the beneficiary countries in order to secure sufficient transfer of knowledge and practices to local regulators.

Expected results, indicators and conditionality:

The ultimate aim of the programme is an independent and competent nuclear safety authority in each of the beneficiary countries covered by the programme, resulting in streamlined and efficient licensing processes and activities of supervision, notification and emergency response. Screening of government policies is expected in order to verify and ensure that the independence and role of the respective regulators are preserved.

⁵

The existence of the common Brazilian-Argentine Agency for the Accounting and Control of Nuclear Materials (ABACC) will be taken into consideration.

1.2. Support to nuclear operators

Support to operators of nuclear facilities in third countries should be provided taking into account the criteria outlined in the Council Conclusions on assistance to third countries in the field of nuclear safety and security⁶.

Assistance to third country nuclear operations over the period of 2010-2011 will continue the current support to nuclear operators in Armenia and Ukraine, and may be extended to other third country operators requiring this type of support, in line with the Revised Strategy for the period of 2010-2013. Assistance projects will cover the fields of technical safety management, including the operation and maintenance of equipment, training for operation of new technologies, management of spare parts and improvement of floor level safety measures. The national regulatory authority will be involved at all stages of the projects to guarantee that the working procedures developed and adopted throughout the project lifetime are acceptable and known to the regulator.

The type of actions used to implement safety management projects will be adapted to the needs of the beneficiary country, and may include twinning, training on site or abroad, creation and construction of specialised institutes for operations training. In the case of horizontal actions involving several nuclear power plants (NPP), strong involvement at corporate level will be required. Effective coordination mechanisms between NPPs will be assured and assistance to the central operator will be put in place.

Expected results, indicators and conditionality:

Improved operational nuclear safety is the major outcome expected. Such improvement can be evaluated indirectly through indicators which will be developed for each project proposed for support. These indicators should aim to measure the progress in global safety management, through, for example, equipment reliability, number of operating events and reactor scrams experienced by the plant. Improvement in the plant's availability factor is also a consequence of the plant's enhanced performance, but should be considered only as one element of the safety improvement.

1.3. Safety improvement in design, operation and maintenance of nuclear installations

Projects in this area will aim to secure and/or improve the safety of nuclear power plants and nuclear installations involved in the fuel cycle, mainly by providing the relevant support in the design and construction phase, identifying the existing weaknesses and proposing appropriate remedial actions and procedures. Support may include safety-related activities, such as assessment, engineering support, and development of related capabilities.

Support to improve the safety levels of the Ukrainian NPPs is envisaged in the programming period 2010-2011, which will take into account the results

⁶ Council Conclusions on assistance to third countries in the field of nuclear safety and security, 2913th TRANSPORT, TELECOMMUNICATIONS and ENERGY Council meeting Brussels, 9 December 2008.

of the Joint Project EC-IAEA-Ukraine on the safety evaluation of the Ukrainian NPPs.

Expected results, indicators and conditionality:

The improvement in the safety of nuclear installations is the major outcome expected from projects under this part of the programme. Generally, the safety of nuclear installations is difficult to quantify by numerical indicators. However, compliance with the IAEA nuclear safety standards and the resolution of remaining IAEA safety issues, with priority to category IV or category III items, may serve as an appropriate evaluation indicator.

1.4. Safety of nuclear material and radioactive waste management

The main activities related to radioactive waste and spent nuclear fuel management include the following.

- Support and collaboration for the development of guidelines and a regulatory framework for safe handling of radioactive materials, including pilot actions for remote handling prototypes and mobile installations.
- Support for the preparation of general country strategies for the management of radioactive waste;
- Characterisation and sorting criteria, definition of applicable standards for the characterisation of waste and nuclear materials, development of methodologies and techniques, and a pilot technical installation for characterisation.
- Methods and technologies for nuclear waste conditioning and packaging, development and application of new, more effective and safer installations and methods.
- Support for the preparation of decommissioning plans and licensing documents for power/research reactors. Such assistance is envisaged mainly as a continuation of support given in this field to Georgia and Ukraine. Extension of this type of assistance to other third countries will be in line with the Revised Strategy for the period 2010-2013.
- Methods and technologies for the management of waste from decommissioning of nuclear facilities. Projects in this area should not deal with the actions to be taken by nuclear operators as part of their regular business activity as electricity producers through the available expertise on the market.
- The control of radioactive sources has been for many years the focus of international efforts led by the IAEA, and with the active co-sponsoring and participation of the Commission. The INSC programme could continue helping to address these safety and security issues by participating in the existing IAEA initiatives, or by providing support to third countries with insufficient regulatory infrastructure in order to implement the required controls in this respect.
- Rehabilitation of former uranium mines sites. Potential contributions under INSC will depend on the results of the ongoing analyses and the concrete needs of the

countries concerned, namely in Central Asia where a regional initiative on assessment of the needs has been launched by the IAEA with the support of the Commission. Potential Commission's support would represent a contribution to solving the issue of uranium mines remediation and radioactive waste disposal, and would be feasible as part of a coordinated approach with concerned governments, technical agencies and other stakeholders. Special attention will be given to projects with a cross-border impact in Central Asia, such as in the Ferghana valley region.

Expected results, indicators and conditionalities:

Enhanced levels of safety in terms of the handling, transport, treatment, storage and disposal of radioactive waste and spent fuel are expected as a result of the assistance provided. As for the decommissioning of nuclear installations, agreement on technical projects and project management arrangements must be reached. Indicators will be developed to measure the progress in the management of nuclear wastes, respecting the principles of international legislation and ensuring a stable technical and financial framework for the long-term management of nuclear wastes.

The development of a regulatory framework related to the handling of radioactive material and sources is to be considered in relation to the security and illicit trafficking issues. Therefore coordination regarding activities under the INSC and the Instrument for Stability is desirable.

As far as rehabilitation of former uranium mines sites is concerned, it is important to take into account non-proliferation aspects, in order to prevent that illicit extraction takes place after the closure of the mines.

1.5. Accounting and control of fissile materials

Effective safeguards systems and effective control of all nuclear materials is a key non-proliferation issue. Activities will be continued under the current projects in NIS countries, and extended as appropriate to meet the concrete needs of other third countries during the programming period.

Projects in this area will aim to strengthen safeguards and enhance nuclear material accountancy and control in related nuclear fuel cycle facilities. For this purpose, assistance should be provided to beneficiary countries for improving the technical and organisational measures in line with their State or Regional System of Accountancy and Control (SAC) based on recommended international standards.

Expected results, indicators and conditionality:

Assistance is expected to help reinforce the training of inspectors and intensify the transfer of modern equipment and methodologies. In addition, the regulatory body in charge of this area is often also involved in non-proliferation activities. Enhanced safeguards and improved nuclear material accountancy and control of nuclear materials will increase the international security, in line with the current EU and global initiatives in this field, in particular those under the umbrella of IAEA.

1.6. Off-site emergency preparedness

Assistance in the field of off-site emergency preparedness will be based on the concrete needs of the third countries concerned, it will take into account the possible regional impact of new nuclear power programmes. Potential support of this type could be provided on a regional basis to the countries of South-East Asia, preferably by building on or coordinating with existing platforms in this area, such as the Asian Nuclear Safety Network launched by IAEA in 2002. An integrated modern Off-Site Emergency Network will be expected as a result of this assistance.

1.7. Participation in International Funds (CSF, NSA)

Assistance provided under this part should cover issues related to the stabilization and decommissioning of the Chernobyl site, in line with the approach outlined in the Revised Strategy for the period 2010-2013.

The Commission has so far contributed some €240 million to the Chernobyl Shelter Fund. For the Nuclear Safety Account, the Commission contribution reached €21 million, with a further pledge of €15 million made in December 2008 for the completion of the Interim Spent Fuel Storage Facility (ISF2) project.

Projects under the above Funds, which are managed by the EBRD, have incurred delays and cost increases. The financial shortfall in the funding needed to complete the projects is currently estimated at the level of €400 – 500 million, which is expected to be mostly funded by the international donor community. Based on the historical burden sharing, the Commission would be expected to cover some 25 % of the financial needs, part of which will, most likely, arise in course of the programming period 2010-2011.

Expected results, indicators and conditionality:

The current schedule envisages the completion of the New Safe Confinement (under the CSF) in 2012. Progress on this project, according to the agreed schedule and budget, as well as the other projects covered under the NSA (ISF2 and the Liquid Radioactive Waste Treatment Plant (LRTP)) would be the major indicators. The major risks to the timely and on-budget completion of these unique projects are the institutional stability in Ukraine, the complexity of the design technical solutions, regulatory approvals and escalation in the prices of materials and labour.

The Commission is making further funding conditional upon the possibility of exerting improved monitoring and control of the operations and their active follow-up, in line with the findings and recommendations following the audit by the Court of Auditors.

1.8. Measures to promote international cooperation

Development and implementation of the nuclear safety policy of the European Union and its Member States will be further enhanced by using and strengthening existing international activities or “contexts”, which directly or indirectly contribute to

harmonised views on nuclear safety and regulation⁷, and by promoting international cooperation.

Measures will be taken to promote international cooperation (including in the framework of relevant international organisations, notably the IAEA) in support of the above programme components, including the implementation and monitoring of international Conventions and Treaties, exchange of information and training and research⁸. They will aim at fostering the effectiveness of the Global Nuclear Safety Regime (GNSR) taking into account INSAG recommendations⁹. Modern information technology, such as enhanced global and regional networking, should be used to support the instruments and mechanisms of the GNSR by providing timely access to important safety information. The results should also be made available by regional networks such as ANSN, FORO and the WWER Forum.

Collaboration with the IAEA has the objective, in particular, to further develop nuclear safety culture and the required expertise at global level and to support adherence to international Conventions and Treaties. It will cover several of the programme components referred to above. Regional cooperation will be encouraged where possible and appropriate, making use of existing networks (such as the Asian Nuclear Safety Network). Such cooperation will encourage transparency, particularly amongst neighbouring countries. Cooperation with the IAEA is intended to take advantage of potential synergies and established structures, contributing to the objectives pursued under the INSC. It may take the form of co-financing or joint projects.

Expected results, indicators and conditionality:

International cooperation is expected to contribute to the overall improvement of the effectiveness of the global regime. Cooperation with the IAEA, in particular, should contribute to further development of nuclear safety culture and encourage transparency, particularly amongst neighbouring countries.

Indicators of the overall success in promoting international cooperation would be the amount of information and knowledge shared, the number and relevance of reporting and feed-back from projects under the INSC and the enhancements initiated.

A high visibility of the assistance granted under the INSC must be achieved as part of the joint global effort of international organisations and other donors. Evaluations of the effectiveness of assistance and cooperation as well as the response to problems or challenges must be included.

2. ADMINISTRATIVE SUPPORT MEASURES

Support measures for the programme will be provided under a specific budget line for INSC Expenditure on administrative management (19 01 04 06). The support

⁷ European Council Working Party on Nuclear Safety (WPNS), Final Report 15475/2/06 REV 2 (<http://register.consilium.europa.eu/pdf/en/06/st15/st15475-re02ad01.en06.pdf>)

⁸ Article 2 (e) of the 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).

⁹ INSAG-21 – Strengthening the Global Nuclear Safety Regime (a report by the International Nuclear Safety Group, IAEA, Vienna, 2006)

will be provided mainly by the Joint Research Centre, which has been assisting the Commission in the implementation of nuclear safety programmes by providing technical and scientific support. This has mainly covered preparation of the terms of reference, assistance in the evaluation of technical bids received, advice during project implementation and assessment of project results.

Technical support may also be needed for the preparation of Euratom loans. Other necessary technical support activities can also be considered based on the actual needs of the INSC programme during the period 2010-2011.

TABLE 1 -Proposed budget allocation by beneficiary¹⁰

BENEFICIARY (type of support)	Estimated total budget for 2010-11 (million EUR)
ENP-East	
Ukraine - support to nuclear regulator and TSO - support to nuclear operator - radioactive waste management - nuclear safeguards	40
Armenia - support to nuclear regulator and TSO - support to nuclear operator - nuclear safeguards	5
Belarus - support to nuclear regulator and TSO Georgia - support to nuclear regulator and TSO - radioactive waste management potential contribution to uranium mines remediation in Central Asia	6
ENP – South and Middle East	
Egypt - support to nuclear regulator and capacity building Jordan - support to nuclear regulator and capacity building Morocco - support to nuclear regulator and capacity building Potentially support to nuclear regulators and capacity building in other countries in the region	8
Latin America	
Brazil - support to nuclear regulator - support to nuclear operator Argentina - support to nuclear regulator Other countries¹¹ - support to nuclear regulator - support to nuclear operator	10

¹⁰ The table refers to the main areas of assistance/cooperation for each country, the other programme components referred to in paragraph 1. (Priority Areas of Support in the Strategy paper), will be considered on a case by case basis.

¹¹ If necessary and politically feasible.

BENEFICIARY (type of support)	Estimated total budget for 2010-11 (million EUR)
South-East Asia	
Vietnam - support to nuclear regulator and capacity building	3
Other countries ¹² - regional emergency preparedness, - support to regulators and capacity building	3
Asia (China and India)	
China ¹³ - support to nuclear regulator and capacity building - support to nuclear operator India ¹⁴ - support to nuclear regulator and capacity building - support to nuclear operator	12
International Funds (Chernobyl)	
- Nuclear Safety Account - Chernobyl Shelter Fund	40
International cooperation	
International cooperation in support of the different programme components Measures to promote international cooperation (including in the framework of relevant international organisations, notably the IAEA) in the fields of the programme components, including the implementation and monitoring of international Conventions and Treaties, exchange of information and training and research.	10
Administrative support measures	6
TOTAL	143

¹² If necessary and politically feasible

¹³ If necessary and politically feasible

¹⁴ If necessary and politically feasible

TABLE 2 -Proposed budget allocation by programme component

Programme Component	Million €	%
Support to nuclear regulators	41	28.7%
Support to nuclear operators	29.5	20.6%
Safety improvement in design, operation and maintenance of nuclear installations ¹⁵		
Safety of nuclear material and radioactive waste management	12	8.4%
Accounting and control of fissile materials	2.5	1.7
Off-site emergency preparedness	2	1.4%
Participation in International Funds (CSF, NSA)	40	28.0%
Measures to promote international cooperation	10	7.0%
Technical support	6	4.2%
TOTAL	143	

¹⁵ Mostly included under ‘support to nuclear operators’

ACRONYMS

ANRA	Armenian Nuclear Regulatory Authority
ANSN	Asian Nuclear Safety Network
CSF	Chernobyl Shelter Fund
EAEA	Egyptian Atomic Energy Authority
EBRD	European Bank for Reconstruction and Development
ENP	European Neighbourhood Policy
FORO	Latin American Forum of Nuclear and Radiological Regulatory Organizations
GNSR	Global Nuclear Safety Regime
IAEA	International Atomic Energy Agency
INSC	Instrument for Nuclear Safety Cooperation
ISF2	Interim Spent Fuel Storage Facility
JNRC	Jordanian Nuclear Regulatory Committee
LRTP	Liquid Radioactive Waste Treatment Plant
MEM	Ministère de l'Énergie et des Mines
NPP	Nuclear Power Plant
NSA	Nuclear Safety Account
SAC	System of Accountancy and Control
SNRCU	State Nuclear Regulatory Committee of the Ukraine
TSO	Technical Support Organisation
WWER Forum	Forum of the State Nuclear Safety Authorities of the Countries Operating WWER
WWER	Russian nuclear power reactor of Pressurized Water Reactor (PWR) type