COMMISSION DECISION
OF 2001

Establishing a Horizontal Programme for Community support in the field of Nuclear Safety for 2001 (for Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia)

The Commission of the European Communities,

Having regard to the Treaty establishing the European Community,

Having regard to Council Regulation (EEC) N° 3906/89 of 18 December 1989 on economic aid to certain countries of Central and Eastern Europe¹, as last amended by Regulation (EC) No 2666/2000², and in particular Article 9 thereof,

Whereas:

(1) Regulation N° 3906/89 lays down the rules and conditions for the granting of economic aid to certain countries of Central and Eastern Europe,

(2) The measures provided for by this Decision are in accordance with the opinion of the Committee on Aid for Economic Restructuring in certain countries of Central and Eastern Europe,

HAS DECIDED AS FOLLOWS:

Article 1

The Programme described in the Annex to the present decision is hereby adopted.

Article 2

The maximum amount of Community assistance shall be 3.137 Million EUR to be financed through Budget line B7-030 in 2001.

Done at Brussels,

For the Commission

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¹ OJ n° L 375, 23/12/1989 p. 0011 - 0012
Financing Proposal 2001

HORIZONTAL PROGRAMME FOR COMMUNITY SUPPORT IN THE FIELD OF NUCLEAR SAFETY

1. IDENTIFICATION

Programme Type               Horizontal; implementation through eight national programmes and one multi-country element subject to centralised implementation
Year                          2001
Cost                          18.327.000 €
Implementing Authorities      National Funds/CFCU's/Implementing Agencies in Bulgaria, the Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, and Slovenia as well as Commission services
Expiry date contracting       30 November 2003
Expiry date payments          30 November 2004
Sector                        IN & EN
Group                         C
Budget line                   B7 - 030
Programming                  Lucien Cécille, Eduards Deksnis (Task Force for Nuclear Issues, DG ELARG)
Task Manager                  Head of PHARE Section in the relevant EC Delegations for the National Programmes. For the multi-country programme, Lucien Cécille in close co-operation with Hans-Georg Wagner of DG TREN (for ZZ 01.25.01), and Andreas Herdina in close co-operation with Peter Reichel of DG ECFIN (for ZZ 01.25.02 and ZZ 01.25.03)

2. SUMMARY

Risks related to the production of nuclear energy, and to the management of irradiating materials such as radioactive waste and spent nuclear fuels, represent potential environmental and health hazards that could durably affect the quality of life of citizens of the European Union and of candidate countries. Whatever the reality and the extent of these risks, the Governments of Member States have been making a sustained effort, in the form of provisions that span several decades, to enhance nuclear safety through a number of legislative and regulatory actions.

The prospect of enlarging the European Union by ten additional countries of Central and Eastern Europe (CEECS) - some of them having a park of vintage nuclear reactors/facilities, and most with a level of safety that is still below the standards generally accepted in Member States – has constituted a source of concern.
In the field of nuclear safety, the European Community has been providing PHARE-funded support to such candidate countries since the beginning of the 1990s. Until 1999, this support was mainly delivered on the basis of multi-country programmes.

Since then, all PHARE beneficiaries have become part of the accession process to become Member States of the European Union in response to the invitation to start accession negotiations expressed to them, first by the Luxembourg European Council, and, subsequently, by the Helsinki European Council.

In line with this development in the bilateral relations of the European Union with the beneficiary countries and the elaboration of a specific Council Report, as from 2001 the Community’s support to nuclear safety projects is to be administered through a horizontal type of programme. Each beneficiary is entrusted to engage in its implementation through individual national programmes. This approach implies a higher degree of responsibility for reaching the programme’s objectives on the part of the beneficiary country, corresponding with the country’s own responsibility to ensure a high level of nuclear safety in a manner sustainable throughout the pre-accession period and beyond accession.

The maintenance of a high level of nuclear safety in countries operating nuclear power plants has constantly been emphasised in the Accession Partnerships with the beneficiary countries. The Accession Partnerships 2001 will specifically refer to the recommendations in the said Council Report.

The programme reflects a general policy to complement the beneficiary countries’ own efforts with Community support. This support not only reacts to identified priorities, but also to particular needs for the transfer of specific know-how to reach the expected high level of nuclear safety throughout Europe. In some cases, the programme covers areas beyond the recommendations of the Council Report.

This programme continues long-standing Community support with regard to a number of specific issues:

* Regulatory assistance;
* Reactor safety;
* Emergency preparedness in case of a nuclear accident;
* Radioactive waste management;
* Radiation Protection;
* Safeguards.

The supported projects notably focus on providing support to nuclear safety regulatory authorities and technical safety organisations addressing specific needs for the transfer of expertise to enable them to exercise their licensing functions. Furthermore, technical assistance related to a technological development, delivery of equipment and investments in nuclear facilities is to be provided.

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3 In June 2001, the Council issued a Report on Nuclear Safety in the Context of Enlargement. This report reflects the situation and perspective of nuclear safety in candidate countries and contains recommendations for improvements of a general as well as country-specific nature.
Finally, the programme contains elements of support to the preparation of an EURATOM loan.

It is important to note that this programme does not only cover six of the seven candidate countries with operating nuclear power plants. This programme also addresses issues of nuclear safety related to historical radioactive waste that is being stored in several countries (Latvia, Hungary, and Poland). For one country (Latvia) an important proposal has been included addressing radioprotection issues, inasmuch as this work would substantially assist the accession process.

With regard to its implementation through separate national programmes, this Financing Proposal therefore covers eight countries – Bulgaria, the Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, and Slovenia. The multi-country element of this programme containing the so-called “ACCESS project” benefits all ten countries. There is no action specifically directed to Estonia where historical waste is giving concern. This is due to the fact that at present a comprehensive strategy study (funded by the European Commission) on the identification of an optimised management route for radioactive waste and dismantling of nuclear installations is under way. It is very likely that based on the outcome of this study, further technical assistance projects will be supported by PHARE in 2002. With regard to Slovakia, project proposals also need further consideration in preparation of the forthcoming PHARE 2002 programme.

The relatively low cost of several project proposals (lower than 0.5 MEuros) is justified by the fact that these deal with conceptual or exploratory studies for which sometimes large pieces of information are already available. Most such projects in the field of radioactive waste management should open up to larger investment projects in the future.

3. STRATEGY

The Commission laid down its strategy for support to nuclear safety in the beneficiary countries in its Communication of 6 September 2000, COM (2000) 493 final. The strategy is built on the policy as decided by the G7 in 1992 and reflects the experience gained and developments achieved since then. In order to promote safety in nuclear energy operations in the candidate countries, support has concentrated on enhancing the capacities of nuclear regulators and technical safety organisations in the candidate countries. PHARE support is also made available to safety enhancing projects for certain reactor types and to ensure a high level of operational safety throughout the remaining lifetime of certain reactors that are the subject of early closure commitments. The Strategy particularly aims to be accession-driven, represent a continuation of previous Community support in the nuclear safety field, and support activities in fields of identified concern.

Within the overall EU strategy for accession, the current programme falls into a transition period from the previous external aid approach of the multi-country programme to Central and Eastern European Countries to an accession-driven approach to the use of the PHARE pre-accession financial instrument. The recommendations of the Council Report on Nuclear Safety in the Context of Enlargement can be expected to impact on PHARE support in the field of nuclear
safety and will be reflected even more in the design of future programmes. Whilst drawing on project proposals widely elaborated prior to the said Report, the 2001 programme already contains projects that are beneficial in addressing the findings made by the Council of the European Union in June 2001.

4. OBJECTIVES AND DESCRIPTION

4.1. Objectives

The overall objective of this programme is to contribute to improving nuclear safety in the beneficiary candidate countries.

The specific objective of this programme is to ensure that the projects listed below are completed within the disbursement period and that their outcome provides sustainable results towards the aim of a high level of nuclear safety.

With regard to the elements of the programme containing regulatory assistance, the objective is to contribute to the enhancement of factors affecting regulatory effectiveness as spelled out, for instance, in the conclusions of the 17th meeting of the CONCERT Group in relation to the technical content of each project. These factors are:

- “To be effective, a regulatory body must have a well-defined task, well-defined work and assessment processes, be independent from the energy producers, political power and pressure groups, be transparent and open, and have the adequate means, in terms of budget and competent and well motivated staff to perform its task.
- An effective regulatory body is one that ensures an acceptable level of safety, acts to prevent degradation of safety, promotes safety improvements, is timely and cost effective, ensures the confidence of operators, general public and government, and strives continuously for improved performance.
- A regulatory system is effective when the utilities consistently do all that they should to maintain or improve safety. Nevertheless, the performance of the plant operators depends also on other factors, and it is difficult to use it to assess the effectiveness of the regulatory body.
- International co-operation and international peer reviews play an important role in the development and maintenance of an effective regulatory body.”

Details of the objectives of the technical assistance projects in the fields of power reactor safety, radioactive waste management, emergency preparedness, radiation protection are to be found in the project fiches (Annex 2).

4.2. Description of Projects

Due to their specific technical nature and with the aim of enhancing public safety, projects supported in the field of nuclear safety do not necessarily correspond to the

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4 Conclusions of the 17th CONCERT Group meeting, June 29-30 2000.
general criteria of being catalytic, co-financed, or additional. The projects have, however, been chosen for their being sufficiently mature and for their being able to contribute to a sustainable improvement to the level of nuclear safety within their specific objectives. A general consideration has been that the project should enhance the accession process in the candidate country. As mentioned before, the projects fall into seven different general topics:

* Regulatory assistance;
* Reactor safety;
* Emergency Preparedness;
* Radioactive Waste management;
* Radiation Protection;
* Allocation of EURATOM loan for an investment project to improve reactor safety;
* Safeguards.

The importance of each of these topics is obviously dependent on the situation that prevails in each candidate country in the field of nuclear safety. For the sake of clarity, the projects to be implemented under the 2001 programme are listed per country on the basis of its nuclear specificity.

### 4.2.1. Bulgaria

**BG 01.10.01 Phenomena investigation and development of Severe Accident Management Guideline**

At present, the Kozloduy Nuclear Power Plant (KNPP) operational documentation complies with the Western standards. This means that this documentation comprises instructions for normal operation; instructions in emergency conditions; instructions for return to normality; emergency plan for the site, and national emergency plan. The only document that is still required is the Severe Accident Management Guideline (SAMG) that notably defines the nature of accidents and the appropriate measures to be taken in accidental situations. Preparation of the SAMG should be based on a number of well-established computer codes for the KNPP that simulate behaviour of a reactor core and various other key components. The SAMG should also set up an organisational structure for emergency situations and propose a training methodology for personnel. The beneficiary of this project is the Kozloduy NPP. The SAMG should also give input to the Bulgarian authorities for preparation of a National Emergency Plan, which would define means, resources and facilities to be available in case of a nuclear accident. It is important to note that the PHARE programme has in the past provided similar support for nuclear power plants in other candidate countries. This project is in line with a type I recommendation made by the Council Report.

**BG 01.10.02 Enhancement of Safety Assessment Capabilities available to Bulgarian Nuclear Safety Authority (BNSA)**

The Kozloduy Nuclear Power Plant (KNPP) has decided to engage in a programme of safety improvement works on units 3 and 4, in order to ensure their safe operation.
until their final early closure to which Bulgaria is committed through an Understanding signed in 1999 with the European Commission. In parallel, the KNPP is upgrading the safety and reliability of KNPP-5 and 6 with partial support through a EURATOM loan. These actions involve review of the safety case for KNPP-3, 4, 5 and 6. The KNPP is also involved in the development of a modern, well-documented quality management system. Finally, the KNPP is looking at adequate measures ensuring reactor pressure vessel integrity of KNPP-3 to 6. The main aim of the project is to provide BNSA with external support to accomplish its corresponding licensing tasks in the most effective manner and in close co-ordination with other regulatory assistance projects. This action is in line with the recommendations of type I of the Council Report.

4.2.2. Czech Republic

**CZ 01.14.01 Reassessment of the RPV internals stress state based on real service irradiated mechanical properties**

The material properties of reactor internal components change during irradiation. The amount of the change is affected by irradiation temperature and flux of neutrons. It is proposed to determine mechanical and fracture mechanical properties of material irradiated during operation of the Greifswald VVER reactors to determine the parameters necessary for assessment of the residual lifetime of VVER internal structures (within the reactor core). There is little data available in this field; notably, some work has been done in Finland on the Loviisa reactors. The purpose of the project (which would comprise two phases, both of which are to be funded under this project) will, first, to establish a methodology for the experimental part of the work as well as to determine integration of the resulting database of properties into Czech regulatory procedures. This project is in line with a type II recommendation made by the Council Report.

**CZ 01.14.02 “Assessment and validation of computer codes based on PSB-VVER experimental data”**

International specialist organisations (e.g. CSNI, Committee on the Safety of Nuclear Installations of the OECD) have identified an urgent need to improve the confidence in the use of certain thermo-hydraulic codes for simulating VVER-1000 reactors. The parameters of a unique VVER-1000 test facility (located in Russia) permit experimental investigation of a wide range of critical thermal-hydraulic processes that can occur in the primary and secondary circuits of VVER-1000 reactors during transient and accident situations. As several thermal-hydraulic codes, including those of EU origin are available to TSOs in the Czech Republic, it is proposed to define, in an initial phase, critical experiments that should be carried out in this facility to assist in benchmarking and assessment. For a second phase outside this project, an international workshop is to be held to assess the robustness of the proposed programme of experiments in the light of other efforts financed either by the European Community or from other sources. Actual experimentation and post-experimental numerical analysis will be possible at a later stage that might be considered separately for PHARE-funded support. This project is in line with a type I recommendation made by the Council Report.

**CZ 01.14.03 Closure of a chamber of the Richard underground disposal facility**
For institutional radioactive waste, the Czech Republic has been operating for several decades a long-term storage/disposal repository named Richard. This repository has been constructed in a former limestone mine excavated in a mountain in the Northern part of the country. Waste packages are piled up in chambers that are situated along galleries. It is planned to close the chambers by sealing them with concrete and to fill the voids between waste packages with appropriate materials. The main objective of the project is to develop a technical solution for the sealing of galleries and to perform a safety assessment for the solution that will be retained. This is a prerequisite for demonstrating the long-term safety of the whole repository for radioactive waste. This project is in line with a type II recommendation made by the Council Report.

CZ 01.14.04 Reconstruction of the hot cell at the Richard repository

At present there are some spent sealed radioactive sources in the Czech Republic for which no long term storage or disposal route exists. These are mainly long-lived radioactive sources that are provisionally stored at users’ premises. The State organisation RAWRA (Radioactive Waste Repository Authority) recognises that it has a responsibility to provide a disposal route for such wastes. It is examining the possibility of receiving such sources into Richard for interim storage prior to disposal in a deep underground repository. According to Czech regulations, interim storage in the chambers of the Richard repository would require packaging or re-packaging of these sources and control of their physical integrity. In order to do so, a suitable hot-cell must be operational near the Richard repository. The aim of this project is to develop a refurbishment plan for this hot-cell and to perform the necessary reconstruction work so that packaging operations can take place as soon as possible. This project is in line with a type II recommendation made by the Council Report.

CZ 01.14.05 Development of the waste tracking information system

In order to comply with the requirements of the Joint International Convention on the Safety of Radioactive Waste Management, RAWRA as the agency in charge of radioactive waste management and disposal has been entrusted to set up an inventory of all types of wastes that are stored or disposed of on the Czech territory. For this purpose a computerised database system has been created. Although the system has become operational, it needs further optimisation so that each radioactive waste producer can be connected on-line with the existing system. The main aim of the project is to reinforce the capacity of RAWRA to track all kinds of radioactive waste on the Czech territory through an optimisation of the computerised database. This project is in line with a type II recommendation made by the Council Report.

4.2.3. Hungary

HU 01.11.01 TSO support in assessment of level 2 PSA for VVER 440/213

A thorough level 2 PSA analysis programme for the Paks NPP has been launched by the utility. Presently the nuclear regulator HAEA/NSD will be faced with the task of assessing the relevance of input data, the methodologies applied and the results of analyses that should best be utilised for regulatory purposes. The level 2 PSA is to
be effected by analyses that are state-of-the-art to such an extent that internal resources of the HEA/NSD are not sufficient for the task of assessing the quality of work being done. In the course of this Project it is proposed to establish the methodology for reviewing level 2 PSA for HAEEA/NSD and to implement it by review of reports submitted to HAEEA/NSD. Raising the extent and independence of TSO support to the nuclear regulator corresponds to a Type I recommendation made by the recent Council Report.

HU 01.11.02 Evaluation of waste retrieval and disposal options at the Püspökszilágy radioactive waste treatment and disposal facility

At present, there is only one storage/disposal facility for radioactive waste in operation in Hungary. This facility, situated at Püspökszilágy, is nearly full. In order to increase the storage/disposal capacity of the facility, radioactive waste packages have to be retrieved from the vaults for subsequent volume reduction using a variety of treatment processes. The main aim of the project is to assess a series of options for the retrieval, treatment/conditioning, interim storage and disposal of various types of radioactive waste currently in store at the said site so that additional space can be freed.

4.2.4. Latvia

LE 01.09.01 Design of an additional waste disposal vault and integral storage facility for long-lived waste at Baldone, Latvia

A near-surface repository for radioactive waste, located at Baldone, 27 km from Riga, started operations in 1961. This facility is the sole repository for all radioactive waste collected in Latvia (after treatment, as necessary). In the near future Latvia is expected to dismantle the Salaspils research reactor, from which it is estimated that up to 1200 m³ of waste with an activity suitable for disposal at Baldone will be generated. Additionally, it is expected to dispose at this repository spent sealed nuclear sources found on Latvian territory. At present there are no storage capabilities for this kind of waste at Baldone that would correspond to EU standards. This project aims to specify a detailed conceptual design for a concrete vault for near-surface disposal based on experience available in the EU; to specify a conceptual design for an integral facility within this vault for long-term storage of long-lived radioactive waste; and to draft the requisite documentation that would be needed for a future construction project. This corresponds to a Type II recommendation made by the recent Council Report.
LE 01.09.02 Improvement of radiation protection in relation to medical exposure

Transposition of the *acquis* necessitates implementation in Latvia of the requirements of Council Directive 97/43/EURATOM of June 30, 1997 on the “health protection of individuals against the dangers of ionising radiation in relation to medical exposure”. In the first instance this implies replacement of extant equipment which cannot meet modern standards; additionally, it is necessary to draft and implement technical regulations, as well as to train personnel. This project will assist in preparation of new national regulations on the technical surveillance of radiology equipment used in medical practice, including upgrade of a standards laboratory. Additionally, it would include a comprehensive programme of education, building upon national experts qualified as a result of previous assistance. Although the recent Council Report did not make any recommendations concerning radiation protection, it did recognise this to have some bearing on nuclear safety. Successful implementation of the project should impact positively upon the underlying reasons for the derogation that Latvia has requested with regard to the implementation of the above-mentioned Council Directive.

4.2.5. Lithuania

All three following project proposals are related to support to various extents of the Lithuanian regulatory authority VATESI concerning the preparation of the Safety Analysis Report for the Ignalina Nuclear Power Plant Unit n° 2. This is a prerequisite for the operation of this plant beyond 2003.

LI 01.18.01 Support to Vatesi and their TSOs during Review of the Safety Analysis Report for Ignalina NPP Unit 2

The Ignalina Nuclear Power Plant (INPP) consists of two RBMK-1500 reactors. The INPP-1 should be shut down before 2005. The INPP-2 is expected to operate until 2009. A definite date for the closure of this unit is still to be determined by the Lithuanian Authorities. However, to operate it beyond 2003, the Lithuanian licensing authority (VATESI) should provide a license based on a Safety Analysis Report (SAR). In the recent past, a SAR for INPP-1 was carried out with the support of EU organisations. Although part of this report could be used for the SAR to be prepared for INPP-2, an additional safety related analysis should be performed and complementary information should be provided. This concerns the inclusion in the SAR of additional information and data on topics like: radioactive waste management, radiation protection, emergency operating procedures and accident analysis, ageing monitoring, and some additional aspects of system analysis and assessment of the radiological consequences resulting from a selection of accident scenarios. The support that should be provided to VATESI mainly deals with the reviewing of the SAR for INPP-2. This project is in line with a type I recommendation made by the Council Report.

LI 01.18.02 Assistance programme to VATESI and its TSOs in structural dynamics analysis

In the SAR prepared for INPP-1, there are recommendations concerning the topics to be further investigated. One recommendation deals with analysis of the structural dynamics of buildings and components of the INPP. Several areas are to be
addressed, e.g., regular dynamic loads, seismic qualification of all of the INPP
buildings (including soil-structure interaction, equipment response, and the piping
system) and the consequences of explosions and shock waves, (including impact of
missiles or aeroplane crashes), in particular, on the reactor hall. This project should
lead to developing National Guides and methodologies for structural analysis of
concrete and metallic structures subject to these dynamic loads. This project is in line
with a type I recommendation made by the Council Report.

LI 01.18.03 Support to VATESI for important tasks relevant to the licensing
activities of Ignalina Nuclear Power Plant

This project is the logical continuation of an ongoing PHARE project, n° LI9806.016
that is expected to be completed by the end of October 2001. It aims at providing
support to VATESI in the following areas: equipment qualification, implementation of
ENIQ methodology for non-destructive analysis; licensing analysis and evaluation of
design-based accidents; and analysis of severe accidents. It should give additional
input for the preparation of the SAR for INPP-2. The work programme of this project
should be closely co-ordinated with the LT01.18.01 and LT01.18.02 projects on
account of the obvious interactions that are existing between these projects in
particular in the field of licensing analysis and evaluation of design-based accidents.
The project includes organisation of training courses, and the supply of relevant
software and hardware. This project is in line with a type I recommendation made by
the Council Report.

4.2.6. Poland

PL 01.13.01 Improvement of storage conditions and closure of the national
radioactive waste repository - Rózan

In Poland, there is one operational near-surface disposal facility for short-lived
radioactive waste at Rózan. In 1989, tritium releases from the facility were noticed,
showing thereby the existence of some defects in barriers used for isolating
radioactive waste from the biosphere. Since then many studies of hydrogeological
nature have been carried out to elucidate the release phenomena. Based on the
huge amount of data thus collected, a revised version of the safety report for the
operation of the facility should be established. A remediation concept should also be
defined. Finally, the safety report for the closure phase of the repository should be
up-dated. In the absence of these reports, the National Atomic Energy of Poland
(NAEA) might stop, in the near future, all disposal operations at the facility and
prevent any action leading to closure of the site. This project is in line with a type II
recommendation made by the Council Report.

PL 01.13.02 Development of the technology and procurement of equipment for
encapsulation of nuclear spent fuel from Polish research reactors

At present, spent nuclear fuels arising from the operation of research reactors (e.g.
the EWA and MARIA reactors) are stored in cooling ponds at the Polish Institute of
Atomic Energy at Świerk. More than 5000 nuclear fuel assemblies are being stored.
For those spent fuel assemblies that have been stored for more than 20 years,
corrosion of the cladding material has been observed. As a result, the contamination
level in cooling ponds is increasing with time. Based on preliminary investigations,
this project aims at developing a concept for a long-term dry storage of these spent
fuel assemblies and at creating appropriate conditions to substantially slow down the corrosion process through encapsulation into appropriate material. About 40% of the cost of this project will be allocated to purchase of equipment. This project is in line with a type II recommendation made by the Council Report.

4.2.7. Romania

**RO 01.10.01 Nuclear Safety Regulatory Regime Consolidation**

The project aims at the technical consolidation of the capabilities of the Romanian nuclear safety regulatory authority CNCAN related to radioactive waste management and raw natural radioactive material mining and milling, nuclear safeguards, physical protection and nuclear safety. It is intended to draw-up internal working procedures for CNCAN according to European standards on Quality Assurance (ISO 9000). An extensive programme of practical training of CNCAN personnel is foreseen. The activity corresponds both to short-term priorities and medium-term priorities as foreseen by the NPAA of 1999 and 2000. It addresses a country-specific Type I recommendation of the recent Council Report.

**RO 01.10.02 Support to Romanian NRA in Review of Fire Protection, Overpressure Protection of Reactor Primary Circuit and of Main Steam Line Design Safety Issues in Cernavoda-1**

There is a continuing programme in place for the operator of Cernavoda 1 NPP to implement safety and other upgrades as appropriate for the plant, or based on recommendations by the CANDU operators group. This project is intended to support CNCAN in its licensing review of certain specific safety issues for Cernavoda 1 NPP. These include, the overall fire protection programme, fire hazard analysis and potential fire effects; improving measures for fire protection; water hammer safety analysis in the special safety systems (Emergency Core Cooling and Shutdown System n° 2), overpressure protection of the Reactor Primary Circuit; and, main steam line stress analysis issues. This addresses a Type I recommendation by the recent Council Report.

4.2.8. Slovenia

**SL 01.10.01 Seismic monitoring station for the Krsko basin**

Following the recommendation of a previous PHARE Project (e.g. Geophysical Research in the Surroundings of the Krsko NPP), Slovenia decided to upgrade the seismic monitoring system in the vicinity of the Krsko NPP. Using own resources, additional fixed seismic stations will be installed in 2001. The provision of two additional portable seismic stations under this project will, in addition to increasing the present and planned coverage, assist in deciding where to locate further fixed seismic stations (up to four in total) and will complement the seismic network. A high density of seismic stations is particularly crucial in the regions with shallow seismicity, as is the case for the region around Krsko NPP. This project addresses a Type II recommendation made by the Council Report.
4.2.9. Multi-country element

ZZ 01.25.01 Support to candidate countries to prepare them for full compliance with Chapter VII of the EURATOM Treaty and its implementing Regulation, EURATOM 3227/76 – “ACCESS project”

The objective of the ACCESS (Applicant Countries’ Co-operation with the EURATOM Safeguards System) project is to prepare operators of nuclear installations in the candidate countries for full compliance with the provisions of the EURATOM Treaty with regard to nuclear materials accounting obligations. The project provides technical manuals, procedure manuals and training manuals in the languages of each beneficiary country. Training seminars and the delivery of hardware packages are also included. The project was started in 2000 and will end in 2004, depending on the actual accession of current candidate countries. Its first phases have already been funded from previous PHARE programmes’ support in the field of safeguards. The nature of the project demands a centralised implementation in close cooperation with the EURATOM Safeguards Office.

ZZ 01.25.02 EIB Recommendation in connection with the EURATOM loan to the Cernavoda 2 Project

The Romanian Government requested a EURATOM loan to SNN (the Romanian National Electricity Company) on 11 May 1999. As required by the procedures established for granting a EURATOM loan, four studies have been carried out of nuclear safety considerations and of the environmental impact of a completed Cernavoda-2 NPP as well as of the economic justification for this plant and of the financial capabilities of the loan recipient to repay the loan. This further project will cover fees for a synthesis of these studies to be examined by the European Investment Bank with a view to delivering an opinion on the disbursement of the loan.

Due to the nature of this action that requires close co-ordination with the European Investment Bank and legal experts, this project is to be managed centrally by the European Commission, as an exception to the overall policy guiding the bulk of this programme.

ZZ 01.25.03 Legal advice to Romania and SNN in connection with a EURATOM loan to finance the Cernavoda 2 Project

The Romanian Government requested a EURATOM loan to SNN (the Romanian National Electricity Company) on 11 May 1999. As required by the procedures established for granting a EURATOM loan, four studies have been carried out of nuclear safety considerations and of the environmental impact of a completed Cernavoda-2 NPP as well as of the economic justification for this plant and of the financial capabilities of the loan recipient to repay the loan. This further project will provide Romania with urgently required assistance in the assessment of its legal position with regard to the loan and in negotiating with EURATOM with regard to the documentation needed for the loan.

Due to the nature of this action that requires close co-ordination with EURATOM and legal experts, this project is to be managed centrally by the European Commission, as an exception to the overall policy guiding the bulk of this programme.
4.3. Project fiche

The project fiches provide further detail with regard to the contents of the above-listed actions (see Annex 1).

4.4. Standard remark on environmental aspects

All investment projects that according to the rules stipulated in Directive 85/337/CEE, as amended by Directive 97/11, require an Environmental Impact Assessment, should be the subject of an Environmental Impact Assessment. If the directive has not yet been fully transposed, the procedure should be similar to that established by the above-mentioned directive.

All investment projects shall be carried out in compliance with the relevant Community environmental legislation. The Project Fiches will contain specific clauses on compliance with the relevant EU-legislation in the field of the environment according to the type of activity carried out under each investment project.

4.5. Conditionalities

The effective launching of some of the projects listed above is subject to particular conditions that are described, in more detail, in the respective project fiches:

BG01.10.01: Due regard is to be given to available results from past and ongoing projects on VVER accident analysis under the PHARE and TACIS programmes.

BG01.10.02: Close co-ordination with the project BG/TS/15 funded from the 1999 PHARE nuclear safety programme. The development of a modern well-documented quality management system is to give due consideration of the results of the project BG/TA/03. Finally, the timetable to implement this project must be in accordance with the closure commitments undertaken by Bulgaria with regard to the KNPP Units 3&4.

CZ01.14.01: The mechanical specimens crucial to the project need to be available from the Greifswald NPP, Germany.

CZ01.14.02: Due regard is to be given to available results from other PHARE and TACIS funded projects in the respective area as well as other projects that will be conducted at the PSB facility.

CZ01.14.03: Environmental regulations are to be respected (see detail in the fiche).

CZ01.14.04: Environmental regulations are to be respected (see detail in the fiche).

HU01.11.01: Results of this project are to be made available to the VVER 440/213 user “family”. Available results from any other PHARE and TACIS funded projects in this area are to be taken into account.

LE01.09.01: The long-term safety assessment and environmental impact assessment performed under an EC-funded project terminating in 2001 has to be
taken into account. Environmental regulations are to be respected (see detail in the fiche).

LI01.18.01, LI01.18.02, LI01.18.03: Close co-ordination between these projects.

PL01.13.01: Consideration of the results of a previous PHARE-funded project. Environmental regulations are to be respected (see detail in the fiche).

PL01.13.02: Consideration of the results of a previous PHARE-funded project. Environmental regulations are to be respected (see detail in the fiche).

RO01.10.01: Establish a link with the PHARE-funded project RO/RA/02.

RO01.10.02: Establish a link with the PHARE-funded project PH2/01/99.

5. BUDGET

<table>
<thead>
<tr>
<th>Country</th>
<th>Implementing Agency</th>
<th>Code</th>
<th>Allocation €</th>
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<tr>
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<tr>
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<td></td>
<td>BG 01.10.02</td>
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<tr>
<td><strong>Czech Republic</strong></td>
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<tr>
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<tr>
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### Romania

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<td></td>
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### Multi-country

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</tbody>
</table>

### TOTAL

18.327 M €

6. IMPLEMENTATION ARRANGEMENTS

The bulk of this Financing Proposal is for a horizontal programme. The projects will be implemented through the PHARE national programme structures. This Financing Proposal will be split on a country-by-country basis leading to eight separate Financing Memoranda, as set out in the table above.

Solely, for the multi-country element of this programme (ZZ 01.25), the Commission Headquarters will centrally implement, manage and co-ordinate through the Task Force for Nuclear Safety of DG Enlargement on behalf of the beneficiary countries. The implementation provisions may be reviewed as appropriate by the Commission.

6.1. Implementation

With the exception of the multi-country programme (ZZ 01.25), the programme will be managed in accordance with the PHARE Decentralised Implementation System (DIS) procedures, with ex-ante approval by the European Commission, and with due
regard to the “new rules for contracts in the field of nuclear safety” as adopted by the Commission on 6 September 2000 to the extent that their provisions do not solely address centrally implemented projects (“the Commission will…”). The National Aid Co-ordinator (NAC) of each of the eight countries (see table above) will have overall responsibility for programming, monitoring and implementation of PHARE programmes. The National Aid Co-ordinator and the National Authorising Officer (NAO) shall be jointly responsible for co-ordination between PHARE (including PHARE CBC), ISPA and SAPARD.

The National Fund (NF) in the relevant Ministry (as indicated in the table below), headed by the National Authorising Officer (NAO), will supervise the financial management of the Programme, and will be responsible for reporting to the European Commission. The NAO shall have overall responsibility for financial management of the PHARE funds. He shall ensure that the PHARE rules, regulations and procedures pertaining to procurement, reporting and financial management as well as Community State Aids rules are respected, and that a proper reporting and project information system is functioning. The National Authorising Officer shall have the full overall accountability for the PHARE funds of a programme until the closure of the programme. Appropriate financial control will be carried out by the competent National Control Authority with respect to the implementation of the programme.

The National Fund (NF) in each of the countries respectively is as follows:

Bulgaria - Ministry of Finance
Czech Republic – Ministry of Finance
Hungary - State Treasury
Latvia – Ministry of Finance
Lithuania - Ministry of Finance
Poland - Ministry of Finance
Romania - Ministry of Public Finances
Slovenia – Ministry of Finance

The Commission will transfer funds to the NF in accordance with the Memorandum of Understanding signed between the Commission and the relevant countries in December 1998. Funds will be transferred following requests from the NAO.

A payment of **up to** 20% of the funds to be managed locally will be transferred to the NF following signature of the Financing Memorandum and the Financing Agreements (FAs) between the NF and the Implementing Agencies (IAs)/Central Finance and Contracts Unit (CFCU). The provisions foreseen in articles 2 and 13 of the MoU on the NF must also be met. Furthermore, the NAO must submit to the Commission the designation of the Programme Authorising Officers (PAOs) and a description of the system put in place, highlighting the flow of information between the NF and the IA/CFCU and the manner in which the payment function will be carried out.

Four Replenishments will be made of **up to** 20% of the funds to be managed locally or the full balance of the budget whichever is the lesser amount. The first replenishment will be triggered when 10% of the budget has been disbursed by the IAs and the CFCU. The second replenishment may be requested when 30% of the total budget in force has been disbursed. The trigger point for the third replenishment
is 50%, and for the final fourth instalment when 70% is disbursed. Save for express prior authorisation from the Commission HQs, no replenishment request may be made if the aggregate of the funds deposited in the NF and the Implementing Agencies exceeds 10% of the total budget in force of the commitment. Exceptionally the NAO may request an advance payment of more than 20% in accordance with the procedures laid down in the aforesaid Memorandum of Understanding.

IAs will be responsible for sub-programmes as follows:

Bulgaria: CFCU
Czech Republic: CFCU
Hungary: CFCU
Latvia: LE 0109.01: Ministry of Environmental Protection and Regional Development LE 0109.02: Ministry of Finance
Lithuania: CFCU, Ministry of Finance
Poland: CFCU
Romania: CFCU, Ministry of Finance Implementing Authority: CNCAN
Slovenia: CFCU

The National Fund will transfer funds to the nominated Implementing Agency in each country, including the Central Financing and Contracting Unit (CFCU), in accordance with Financing Agreements (FAs) signed between the NFs and the IAs/CFCU where applicable. Each individual FA will be endorsed in advance by the European Commission. In cases where the NF is itself the paying agent for the CFCU/Implementing Agency there will be no transfer of funds from the NF to the CFCU/Implementing Agency. The CFCU and the IAs must each be headed by a Programme Authorising Officer (PAO) appointed by the NAO after consultation with the NAC. The PAO will be responsible for all the operations carried out by the relevant CFCU/IA.

A separate bank account, denominated in € will be opened and managed by the NF in a separate accounting system in the Central Bank (or in a Bank agreed in advance with the Commission). In principle, all bank accounts will be interest bearing. Interest will be reported to the European Commission. If the Commission so decides, on the basis of a proposal from the NAO, interest may be reinvested in the Programme. The same procedures will apply to any funds transferred to the Implementing Agency or the CFCU.
The NAO and the PAOs will ensure that all contracts are being prepared in accordance with the procedures set out in the DIS Manual.

All contracts must be concluded by 30 November 2003. All disbursements must be made by 30 November 2004.

Any funds not used by the expiry date of the programme will be recovered by the Commission.

For those contracts with funds retained for a warranty period extending beyond the end of the disbursement period of the programme, the overall total of funds related to those contracts, as calculated by the PAO and established by the Commission, will be paid to the Implementing Agency before the official closure of the programme. The Implementing Agency assumes full responsibility of depositing the funds until final payment is due and for ensuring that said funds will only be used to make payments related to the retention clauses. The Implementing Agency further assumes full responsibility towards the contractors for fulfilling the obligations related to the retention clauses. Interests accrued on the funds deposited will be paid to the Commission after final payment to the contractors. Funds not paid out to the contractors after final payments have been settled shall be reimbursed to the Commission. An overview of the use of funds deposited on warranty accounts - and notably of the payments made out of them - and of interests accrued will annually be provided by the NAO to the Commission.

7. MONITORING AND ASSESSMENT

Joint Monitoring Committees (JMC) have been established for each of the eight countries covered by the bulk of this Programme. The JMC will include the NAO, the NAC and the Commission. The JMC will meet at least once a year to review all PHARE funded programmes in order to assess their progress towards meeting the objectives set out in FM and the Accession Partnership. The JMC may recommend a change of priorities and/or the reallocation of PHARE funds. The JMC is assisted by Monitoring Sub-Committees (MSC) that include the NAC, the PAO of the Implementing Agency (and of the CFCU where applicable) and the Commission Services. The MSC will review in detail the progress of each programme, including its components and contracts, on the basis of regular Monitoring and Assessment reports produced with the assistance of external consultants (in accordance with the provisions of the DIS Manual), and will put forward recommendations on aspects of management and design, ensuring these are effected. The MSC will report to the JMC, to which it will submit overall detailed reports on all PHARE financed programmes.

8. ANTI-FRAUD MEASURES, AUDIT AND EVALUATION

All financing memoranda as well as the resulting contracts are subject to supervision and financial control by the Commission (including the European Anti-fraud Office) and the Court of Auditors. This includes measures such as ex-ante verification of tendering and contracting carried out by the Delegation in the candidate country and on-the-spot checks.
In order to ensure efficient protection of financial interests of the Community, the Commission can conduct check-ups and inspections on site in accordance with the procedures foreseen in Council Regulation (EURATOM, EC) No. 2185/96 dated from 11 November 1996, concerning the on-the-spot checks and inspections carried out by the Commission in order to protect the European Communities’ financial interests against fraud and other irregularities.

The procedures foreseen in Article 15 paragraph 3 of Commission Regulation No. 2222/2000 dated from 7 June 2000, on the communication in case of irregularities and the putting in place of a system to administrate the information in this field shall apply.

The accounts and operations of the National Fund and, where applicable, the CFCU and all relevant Implementing Agencies may be checked at the Commission’s discretion by an outside auditor contracted by the Commission without prejudice to the responsibilities of the Commission and the European Union’s Court of Auditors as referred to in the General Conditions relating to the Financing Memorandum attached to the Framework Agreement.

The Commission services shall ensure that an ex-post evaluation is carried out after completion of the Programme.

9. VISIBILITY / PUBLICITY

The appropriate Programme Authorising Officer will be responsible for ensuring that the necessary measures are taken to ensure appropriate publicity for all activities financed from the programme. This will be done in close liaison with the Commission Delegation. Further details are described in the Annex Visibility/Publicity.

10. SPECIAL CONDITIONS

In the event that agreed commitments are not met for reasons which are within the control of the Government concerned, the Commission may review the programme with a view, at the Commission’s discretion, to cancelling all or part of it and/or to reallocate unused funds for other purposes consistent with the objectives of the PHARE programme.
ANNEXES

1. Visibility/Publicity
2. Fiche financière
3. Budget disbursement schedule