

ENRESA'S PARTICIPATION IN THE TECHNICAL ASSISTANCE PROGRAMMES TO THE EASTERN EUROPEAN COUNTRIES

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This article briefly describes the participation of ENRESA in the technical assistance programmes to the Central and Eastern European countries (PHARE) and to the New Independent States (TACIS) as well as in the co-operation programmes all of them established by the European Commission.

It is worth to point out the active role of ENRESA within the European Consortium CASSIOPEE, formed in 1993 by the six radioactive waste management companies in existence in the European Union at that time. CASSIOPEE was created to assist the European Commission in the area of radioactive waste management of the PHARE and TACIS technical assistance programmes.

INTRODUCTION

During this decade important changes have taken place in many Central and Eastern European countries as well as in the former Soviet Union. At present these nations are embarked on a profound transformation of their socio-economic systems, a transition process without parallel in modern history.

This changing political and economic landscape has heightened existing concerns about the safety of nuclear power plants designed and constructed more than two decades ago in a closed society and, in particular on the situation and practices concerning radioactive waste.

In the European Union (EU) there was a general consensus that support and assistance were urgently needed to these countries, aiming at improving the living conditions, and thus to social and political stability. Through the TACIS and PHARE technical assistance programmes, the EU provides since the beginning of the 1990's an important support to the Eastern European countries and the New Independent

States (NIS) for facilitating their transition to market economics and to democratic societies. These programmes are essentially based on transfer of knowledge and expertise, and cover a variety of sectors like public administration, enterprises, health, education, agriculture, banks, energy, transport, nuclear safety and environment. An aspect of the nuclear safety and environment which requires a particular attention is the management of radioactive waste. In this area both programmes are a real opportunity to encourage and to facilitate the assessment of the situations in these countries, the definition of improvement actions and their implementation.

ROLE OF THE EUROPEAN UNION

In the early 1990s, the European Union decided to take a prominent role in the international efforts to help the NIS and the CEEC to ensure the nuclear safety of their reactors, including the nuclear fuel cycle facilities and related nuclear waste. The Member States charged the European Commission with this responsibility.

As far as nuclear reactor safety is concerned the EU's strategy has followed, throughout the whole period, two complementary tracks which were for the first time agreed and clearly set out at the G7 summit in Munich in 1992:

- In the short term, most urgent problems has to be addressed: independent and competent safety authorities had to be set up and the operation of nuclear power plants had to be made safer.

- In the longer term, greater emphasis should be placed on making sustainable improvements in safety by replacing less - safe reactors with alternative energy sources and by improving energy efficiency as well as assis-

ting in the modernisation of the safest reactors.

This strategy has been further set out and developed in several Commission documents, all of them emphasising the priority of activities addressed to enhance the reactors' nuclear safety, but also defining complementary action mainly for nuclear fuel cycle facilities and nuclear waste. The availability of an appropriate radioactive waste management infrastructure, both from the technical and regulatory standpoints is a required condition either during the operation of the nuclear power plants and to undertake the decommissioning phase.

The principal instruments of the EU to implement this strategy are the Phare assistance programme in the case of the CEEC and the Tacis assistance programme in the case of the NIS, both of which are managed by the Commission. In addition, the EU has Euratom loans and a number of small grant programmes at its disposal. The EU has also helped to set up and operate several multilateral programmes in the field of nuclear safety, namely the International Science and Technology Centre (ISTC) in Moscow and the Nuclear Safety Account (NSA) administered by the EBRD.

Additionally, the Directorate General Environment, formerly DG-XI, of the European Commission is also devoting smaller budgets, mainly through co-operation projects in the framework of the Community Plan of Action in the field of radioactive waste.

The European Commission has made available under its Phare and Tacis programmes for the period 1991 - 98 total of 838 million EUR, of which 181 million EUR is under the Phare programme and 657 million EUR is under the Tacis programme, for activities in the nuclear sector.

CASSIOPEE

In 1993 the European Commission (EC) encouraged the six national radioactive waste management companies in existence within EU Member States to create a Consortium in order to assist it in radioactive waste management issues under the PHARE and TACIS Programmes. CASSIOPEE (an acronym for Consortium d'Assistance Operationnelle aux Pays de l'Europe de l'Est), established in February 1993, is a European Economic Interest Group (E.E.I.G.) formed by ANDRA (France), COVRA (the Netherlands), DBE (Germany), ENRESA (Spain), NIREX (United Kingdom), and ONDRAF/NIRAS (Belgium).

The main asset of CASSIOPEE is its qualified expertise in all aspects of radioactive waste management, highly varied expertise gained in the individual organisations forming CASSIOPEE. Indeed, differences in national nuclear programmes and policies mean that each organisation has unique status and role, as illustrated in the table below (Table 1).

Although each member of CASSIOPEE has particular knowledge and experience in some specific aspects of the radioactive waste management, an internal working rule states: "CASSIOPEE will always appear as a neutral and non-profit EU organisation, promoting an EU approach to problems, and in which any company – or national – particular interest should be banished".

members, CASSIOPEE has mainly aimed to play an advisory role to the EC in the front end for the definition of the assistance programmes, thus leaving the projects implementation to industrial groups.

As a first step in providing technical assistance to the EC in the PHARE Programme, an analysis of the situation regarding spent fuel and radioactive waste management was undertaken by CASSIOPEE.

A regional study, entitled "Detailed Regional Study of Management Schemes for the Back-end of the Nuclear Fuel Cycle, Radioactive Waste Management and the Decommissioning of Obsolete Nuclear Installations", was carried out in 1993-1994 covering the following countries: Bulgaria, the Czech Republic, Hungary, Lithuania, Poland, Romania and the Slovak Republic. This study was focused on the identification of problems and their respective urgencies, the consideration of short- and long-term solutions to these problems, as well as the elaboration of recommendations. The outcome of this study was later used to elaborate proposals for specific projects, including technical, legal and institutional areas.

In order to complete the survey in the region, a similar study was carried out in 1997-1998 for Slovenia and other in 1998-1999 for Latvia.

A similar approach was followed for the Kola Peninsula in North west Russia, within the TACIS Programme. CASSIOPEE carried out in 1995 a con-

tendering processes. This role is being implemented on a contract basis with the EC.

In this assistance framework, and in order to support the Hungarian authorities in their site selection national programme for low and intermediate level waste, two expert missions were carried out to Hungary by Cassiopee. The objective was twofold: on the one hand, to provide an expert opinion on a draft report prepared by the Hungarian authorities on the site selection for detailed investigation and licensing, and, on the other hand, to obtain the relevant necessary information to prepare a Phare assistance project for the characterisation of the candidate selected site.

ENRESA'S PARTICIPATION

ENRESA is one of the partners of CASSIOPEE since the Consortium was founded in 1993, and has since then played a very active role in all its activities. From the very beginning ENRESA has pursued an approach for the Consortium that could be compatible with the role played by its partners in the national programmes. In this approach, the Consortium mainly assists the European Commission in defining and preparing the technical assistance programmes as well as in developing those projects of an organisational or strategic nature, thus leaving the implementation of the remain projects to industrial groups.

In this context, ENRESA plays, within

Organisation	Statute	Transport	Competences of CASSIOPEE members					
			Treatment	Storage	Final Disposal	Repository Operation	Decommissioning	R&D
ANDRA	Public	✓	✓		✓	✓		✓
COVRA	Private	✓	✓	✓	✓			
DBE	Private				✓	✓		✓
ENRESA	Public	✓	✓	✓	✓	✓	✓	✓
NIREX	Private	✓			✓(*)			✓
ONDRAF	Public	✓	✓	✓	✓		✓	✓

(*) Only intermediate level waste and long-lived low level waste.

Table 1. CASSIOPEE members

Based on this premise and combining the above individual competences and capabilities, CASSIOPEE provides assistance to the Central and Eastern European countries and to the NIS through the EU Programmes in two different ways:

- Developing radioactive waste management strategies;
- Advising on the implementation of adequate engineering resources.

Due to the nature and status of its

tract for establishing an inventory of radioactive waste and spent fuel present in this region with the objective of developing in a further step an adequate regional waste management scheme.

In this advisory role, the Consortium is assisting the EC in the PHARE programme mainly in the definition of yearly PHARE programmes, elaboration of Terms of Reference (TOR) for selected projects and participation in the evaluation committees in the

the Consortium, a leading role in the whole Phare programme, and is responsible of all assistance contracts signed with the European Commission since 1995 in the framework of this programme. Expert mission aiming at evaluating the situation, identifying the main problem areas and defining the priorities have been carried out to Hungary and Lithuania (1993-94) to Slovenia (1997-98) and to Latvia (1998-99). Besides two other missions

	Title	Beneficiary Co-beneficiary	Remarks
Regional Studies	Preparing remediation at Uranium mining and milling sites in the Phare countries. Provisions of means to assess radiological risks	Czech Republic, Estonia, Hungary, Poland, Romania and Slovenia	Completed in 1998
	Regional study on Soviet-designed research reactors in countries assisted by the Phare programme (Tank type reactors)	Romania Czech Republic, Hungary and Poland	Completed in 1997
	Regional methodologies on L/ILW storage in Phare countries	Slovakia	Completed in 1998
	Technical basis and methodological approach to derive waste package acceptance criteria for surface and near-surface disposal facilities	Romania Remaining Phare countries	In progress
	Quality Assurance and Quality Control procedures for the safe management and disposal of L/ILW	Hungary, Estonia, Latvia, Poland, Lithuania, Romania and Slovakia	In progress
	Regional Study on Soviet-designed research reactors in countries assisted by the Phare programme (Pool type reactors)	Bulgaria and Latvia	To be launched
Country Specific Studies	Establishing the radiologically safe state of Bohunice A1 damaged reactor in Slovakia	Slovakia	Completed in 1996, remaining some tasks
	Closing the Rozan repository in Poland	Poland	Completed in 1997
	Technical support to Lithuania in developing the basic tools and methodologies for preparing a preliminary decommissioning plan for Ignalina NPP and for assessing the cost estimates and funding needs	Lithuania	In progress
	Technical support to Hungary in the selection of a disposal option and candidate site for L/ILW	Hungary	In progress
	Technical support to the Czech Republic in establishing the National Radioactive Waste Management Agency	Czech Republic	Completed in 1998
	Development of the General Radioactive Waste Programme for L/ILW in Romania	Romania	To be launched
	Assistance to Hungary in the safety analysis of Puspokszilagy radioactive waste treatment and disposal facility	Hungary Remaining Phare countries	To be launched
	Assistance in the development of a siting methodology for L/ILW in Slovenia	Slovenia	To be launched
	Solution for a closure of a chamber of the Richard underground disposal facility in the Czech Republic	Czech Republic	To be launched

Table 2. Projects defined by CASSIOPEE

have been conducted to Hungary in order to provide support and advice to the Hungarian authorities in the site selection process for the low and intermediate level waste repository. Furthermore, the Terms of Reference for the projects listed herebelow have also been prepared within the above-mentioned assistance contacts.

The Consortium is particularly experienced in addressing the issues regarding creation and functioning of radwaste management organisation. This experience is valuable to the Eastern countries, which originally had no dedicated radwaste management organisations, the responsibilities being traditionally concentrated in the individual waste producers.

The European Commission being aware of the importance of the institutional building in the Eastern Countries has put a great emphasis in addressing

this area in the assistance programmes. In this respect, it is worth mentioning the case of the Czech Republic in which the Czech Authorities decided in 1996 to set up a radioactive waste management organization, and requested a Phare assistance project to the European Commission in order to get assistance to develop the new organisation. The EC in turn asked CASSIOPEE to implement the project and the contact was signed in November 1996.

The project, completed in December 1998, and developed under the leadership of ENRESA aimed at providing technical assistance to the Czech Authorities in establishing the national radioactive waste management agency, and in developing all necessary documents and regulations for its operation, by transferring the experience gained in countries of the EU. The project is a very good example of the real aim of

the EC assistance programmes which has concluded in a practical and fruitful results for the Beneficiary country, as well as reference for the remaining Eastern Countries. Moreover, this example has shown that a timely and efficient assistance can be given when combining the political willingness of the Beneficiary country and an adequate combination of skills.

In the TACIS programme ENRESA has led the project: "Management of Radioactive Waste in the Moscow Region", the aim of which was to assess the situation of non NPP waste management (medical and industrial sectors) in the Moscow Region, and to propose improvements with a view to increasing operational safety of the management system from the collection at the waste producers' sites to the entrance into the processing and storage/disposal (MNPO RADON) facilities.



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Additionally, ENRESA has also participated in a TACIS project entitled "A scheme for the safe management of radioactive waste in Ukraine" to assist the Ukrainian authorities in the selection process of a site for an engineered near-surface repository for short-lived radioactive waste and another site for a possible deep repository and rock laboratory.

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