1. Basic information

CRIS Number:

Title: Support to licensing activities related to the decommissioning of the Ignalina nuclear power plant to VATESI and Lithuanian TSOs

1.2 Sector: IN & EN

1.3 Location: Lithuania

2. Objectives:

2.1 Overall objective:
The overall objective of this 1.5 MEUR project is to strengthen VATESI in licensing of Ignalina NPP decommissioning activities.

2.2 Project purpose:
The project aims to provide further support to the Lithuanian nuclear safety authority (VATESI) in reviewing of Ignalina NPP and Radioactive Waste Management Agency (RATA) submittals on decommissioning issues and improvement of VATESI and its TSO’s competence in assessing of dismantling activities used by INPP. This project is continuation of the previous EU assistance in this area under the PHARE projects LI/TS/10/99 and LI01.17.02 which cover the years 2002-2004.

2.3 Accession Partnership and NPAA priority:
The Accession Partnership 2001 indicates for Lithuania “To implement the recommendations contained in the Council report on “Nuclear Safety in the Context of Enlargement” with due regard to the priorities assigned in the report”.
The Council report on “Nuclear Safety in the Context of Enlargement” of June 2001 recommends for Lithuania as a short term priority “To develop and implement an action plan to ensure that VATESI has adequate resources to carry out all its duties and responsibilities, and resources to obtain the necessary independent technical support” (1 recommendation of type I).
The Regular Report on Lithuania’s Progress Towards Accession 2002 concludes that “Lithuania has accepted and addressed all recommendations contained in the Report on Nuclear Safety in the Context of Enlargement of June 2001”. The report indicates that most of the recommendations have been adequately addressed; however “Lithuania is encouraged to further ensure the independence, competence and capacity of VATESI”.
The Peer review status report on “Nuclear Safety in the Context of Enlargement” of June 2002 recommends further monitoring of the commitments “Strengthening of the resources of the regulatory body (VATESI) should be ensured and an evaluation made whether resources prove to be sufficient”. (1st Specific Recommendation NPP type I and 1st Recommendation Other Nuclear Installations type II).

Prepared by VATESI 02/05/2003
In this context support to the Lithuanian nuclear safety authority would increase its capability to fulfil its responsibilities in particular in relation with the decommissioning of Ignalina NPP Unit 1 and thus would constitute an important step forward in the field of nuclear safety.

3 Description of the Project:

3.1 Background and justification

The updated National Energy Strategy approved on 10 October 2002, states that on the understanding that European Union Member States recognized the closure of Ignalina NPP as an exceptional financial burden to Lithuania, taking into account the size and economic strength of the country, and declared their solidarity and readiness to continue adequate Community support for decommissioning of Ignalina NPP, shut down of Unit 1 will take place by 2005 and shut down of Unit 2 will take place in 2009. According to the Law on Decommissioning of Unit 1 at the State Enterprise Ignalina Nuclear Power Plant, passed on 2 May 2000, preparation for decommissioning Unit 1 is to be completed by 1 January 2005. Following the above-mentioned law the Program of Decommissioning of INNP Unit 1 was prepared and approved on 19 February 2001, which provides legal, organizational, financial and technical measures necessary for safe shut down of Unit 1. Also a plan with measures to implement the Ignalina NPP Unit 1 Decommissioning Program was prepared in 2001, which consists of two parts: I part- Technical and environmental protection measures and II part- Social and economical measures. Implementation of technical measures has already started.

According to the Law on Nuclear Energy and the Law on Radioactive Waste management VA TESI issues licences for decommissioning of NPP as well as construction and operation of radioactive waste management facilities. Hence, concerning the large part of Ignalina NPP decommissioning program technical measures it is obligatory to obtain VA TESI licence.

In 2005 the pre-decommissioning phase will be finalised, but implementation of pre-decommissioning projects (storage of spent fuel, modernization of radioactive waste handling and etc.), which are included in the Ignalina NPP Unit 1 decommissioning program, will continue. Final shut down and reactor fuel unloading operations will be carried out under a modified operation licence. In parallel, preparations will start to licence the final decommissioning phase – dismantling. Hence, during the period 2005-2006 attention should be paid to gaining knowledge and experience necessary for licensing of the dismantling phase. It is foreseen to issue an overall Decommissioning licence and separate permits to remove equipment and systems. Thus VA TESI and its TSO must review the Safety Analysis Report for the dismantling phase and other licensing documents, descriptions of dismantling technologies, and safety cases for removal of equipment and systems.

The experience of VA TESI and its TSOs in the above-mentioned areas is insufficient. Continued EU support to VA TESI in these areas is necessary for further improvement of its competence. Support from EU regulatory authorities and/or their associated TSOs, to VA TESI and Lithuanian TSOs involved in decommissioning activities would be of considerable value.

Prepared by VA TESI 02/05/2003
3.2. Linked activities

VATESI and its TSOs receive support concerning the decommissioning related activities under the projects as follows:

The ongoing PHARE project LI/TS/10/99 (will be completed in mid 2003) *Support to licensing activities related to the decommissioning of the Ignalina nuclear power plant to VATESI and Lithuanian TSOs.*

The project provides assistance in the following areas:
- Preparation of necessary regulatory documents;
- Review of submittals of Ignalina NPP on pre-decommissioning projects;
- Training of VATESI and its TSOs on the decommissioning and radioactive waste management area.

PHARE project LIO1.17.02 *Support to licensing activities related to the decommissioning of the Ignalina nuclear power plant to VATESI and Lithuanian TSOs.* This continuation of the above-mentioned PHARE project will be performed during 2003-2004. The project aims to provide assistance in the following areas:
- Review of Ignalina NPP’s licensing submittals;
- Enhancement of VATESI and TSO’s capabilities in the field of evaluation of licensing submittals.

Technical Co-operation Project LIT/4/002 *Technical Support for the Decommissioning of the Ignalina NPP Unit 1* financed by IAEA. This project is intended to support Lithuanian Governmental authorities in decommissioning activities. The project co-ordinator is the Ministry of Economy; however, VATESI is supported as well as other institutions involved in decommissioning activities. Within the framework of this project, VATESI participates in workshops, seminars and scientific visits; IAEA performs peer-review of regulatory or other documents if requested by VATESI.

3.3. Results

The following results are expected:
- Review reports of licensing submittals produced.
- Competence of staff of VATESI and its TSOs to assess chosen technologies for removal of equipment and systems improved.

3.4. Activities

The project should comprise the following items:
- Review of submittals of Ignalina NPP on implementation of pre-decommissioning projects (Spent fuel dry storage, modernization of radioactive waste handling and etc.);
- Review of submittals for projects, which were not included in PHARE LI/TS/10/99 and LI.01.17.02 projects;
- Preparation for licensing of dismantling phase of Unit 1;
- Arrangement of workshops, seminars or training courses on assessment dismantling of nuclear facilities.

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The content of training events shall include elements of assessment of dismantling technologies and evaluation of the radiation protection programme. Implementation of this project should be closely linked to PHARE assistance to the Operator with regard to the closure and decommissioning of Ignalina NPP delivered via the Ignalina International Decommissioning Support Fund.

4. Institutional framework:

The project would support the work of the Lithuanian nuclear safety authority (VATESI) and its TSOs. VATESI is a state institution that is subordinate directly to the Government of the Republic of Lithuania. The main functions of VATESI are as follows:
1. state regulation of nuclear safety at the Ignalina Nuclear Power Plant State Company and other nuclear facilities;
2. state regulation of the safety of radioactive waste management in nuclear facilities;
3. state regulation of the safe use of nuclear materials;
4. state regulation of the physical protection of nuclear facilities, nuclear and radioactive materials used in nuclear energy;
5. state regulation of radiation protection within its competence in the Ignalina Nuclear Power Plant and other nuclear facilities.

VATESI consists of five main divisions: Decommissioning and Radiation Protection Division, Safety Assessment Division, Licensing Division, Nuclear Material Control Division and Resident Supervision Division at INPP. Training sessions for Lithuanian TSOs within this project shall be arranged.

5. Detailed budget (in M £)

<table>
<thead>
<tr>
<th>Project Components</th>
<th>Investment Support (IS)</th>
<th>Institution Building (IB)</th>
<th>Total PHARE (IS + IB)</th>
<th>National Co-financing</th>
<th>IFI</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>-</td>
<td>1.50 M £</td>
<td>1.50 M £</td>
<td>-</td>
<td>-</td>
<td>1.50 M £</td>
</tr>
</tbody>
</table>

The PHARE amount is binding as a maximum amount available for the project. The ratio between the PHARE and national co-finance amounts is also binding and has to be applied to the final contract price.

6. Implementation arrangements

The Central Project Management Agency (CPMA) will be the Implementing Agency responsible for tendering, contracting and accounting:

6 Implementation Agency: Mr. Aloyzas Vitkauskas
Director of the CPMA
J. Tumo-Vaizganto 8A/2
LT-2600 Vilnius
Lithuania
Phone: +370 5 212 66 21

Prepared by VATESI 02/05/2003
6 Beneficiary organisation: Mr. Saulius Kutas
Head of VATESI
Sermuksniu, 3
LT-2600-Vilnius
Lithuania
Phone: +370 5 266 16 20/2624141
Fax: + 370 5 261 44 87
E-mail: kutas@vatesi.lt

6.1.2 Contact person: Mr. Darius Lukauskas
VATESI
Sermuksniu, 3
LT-2600-Vilnius
Lithuania
Phone: +370 5 266 15 93/2624141
Fax: + 370 2 61 44 87
E-mail: lukauskas@vatesi.lt

6.2 Twinning: not applicable

6.3 Non-standard aspects: A part of the work under this project will have to be contracted to Lithuanian technical support organizations. Contracting arrangements will be in line with the “new rules for contracts in field of nuclear safety” COM(2000)493.

6.4 Contract: One PHARE Service contract

7. Implementation schedule

7.1 Start of administrative procedure to place the contract: 1 Q. 2004

7.2 Start of project activity: 4 Q. 2004

7.3 Project completion: 3 Q. 2006

8. General criteria:

8.1 Catalytic effect: The PHARE contribution will act as catalyst for priority Accession-driven actions in the field of nuclear safety.

8.2 Additionality: PHARE intervention does not displace other financiers.

8.3 Project readiness The beneficiary will prepare the ToRs for the Service contract. Support of external experts is possible.

Prepared by VATESI 02/05/2003
8.4. Sustainability: Maintenance to be supported by VATESI as is foreseen in the project.

8.5. Compliance with state aids provisions: The investment part of the project will respect the state aids provision of the Europe Agreement should they be applicable.

9. Conditionality and sequencing

The project must be closely co-ordinated with other EC-funded projects. VATESI will prepare the Terms of Reference (ToR).

The project will be sequenced as follows:

1Q. 2004: preparation of the ToR
4 Q 2004: contracting and start of work.
3 Q. 2006: end of activities of the project (final report and other deliverables).
Annexes to project Fiche

1. Logical framework matrix in standard format.
2. Detailed implementation chart.
3. Contracting and disbursement schedule.

Prepared by VATESI 02/05/2003
## Logframe Planning Matrix

For Project: **Support to licensing activities related to the decommissioning of the Ignalina nuclear power plant to VATESI and Lithuanian TSOs**

<table>
<thead>
<tr>
<th>Overall Objective:</th>
<th>Objectively Verifiable Indicators:</th>
<th>Source of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To strengthen VATESI in licensing of Ignalina NPP decommissioning activities.</td>
<td>Licensing activities are in line with the international experience and good practice</td>
<td>Final Report</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project Purpose:</th>
<th>Objectively Verifiable Indicators:</th>
<th>Source of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>To provide further support to Lithuanian nuclear safety authority (VATESI) in reviewing of Ignalina NPP and RATA submittals on decommissioning issues and improvement of VATESI and its TSO’s competence in assessing of dismantling activities used by INPP.</td>
<td></td>
<td>Project Reports; Review reports; Minutes of meetings; Minutes of training events.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Results:</th>
<th>Objectively Verifiable Indicators:</th>
<th>Source of Verification</th>
<th>Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review reports of licensing submittals produced. Competence of staff of VATESI and its TSOs to assess chosen technologies for removal of equipment and systems improved.</td>
<td>Review reports of licensing submittals produced as planned Specialists of VATESI and it's TSOs trained as planned.</td>
<td>Project Reports; Review reports; Minutes of training events.</td>
<td>Successful implementation of linked PHARE and other bilateral/multilateral support projects Licensing submittals received according expected schedule.</td>
</tr>
</tbody>
</table>

Programme:
- Contracting Period
  - Expires: 4Q/05
- Disbursement Period
  - Expires: 4Q/06

Total Budget: 1.5 MEUR
Phare Budget: 1.5 MEUR

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<table>
<thead>
<tr>
<th>Activities:</th>
<th>Means:</th>
<th>Assumptions:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Review of submittals of Ignalina NPP on implementation of</td>
<td>Service contract</td>
<td>• Smooth process of procedures</td>
</tr>
<tr>
<td>pre-decommissioning projects (Spent fuel dry storage,</td>
<td></td>
<td>concerning tendering, contracting</td>
</tr>
<tr>
<td>modernization of radioactive waste handling and etc.);</td>
<td></td>
<td>and implementation</td>
</tr>
<tr>
<td>• Review of submittals for projects, which were not included in</td>
<td></td>
<td>• Successful start of the project.</td>
</tr>
<tr>
<td>PHARE LI/TS/10/99 and LI 01.17.02 projects;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Preparation for licensing of dismantling phase of Unit 1;</td>
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<td></td>
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<tr>
<td>• Arrangement of workshops, seminars or training courses on</td>
<td></td>
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<tr>
<td>assessment dismantling of nuclear facilities</td>
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</table>

Preconditions
**Annex 2**

**Detailed Implementation Chart for the Project**

<table>
<thead>
<tr>
<th>Year</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
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<td>10</td>
<td>11</td>
<td>12</td>
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<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
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<tr>
<td>Service</td>
<td></td>
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</tbody>
</table>

- **Design**
- **Tendering**
- **Implementation**

Prepared by VATESI 02/05/2003
### CUMULATIVE CONTRACTING AND DISBURSEMENT SCHEDULE (Phare Contribution only 1.5 €Million)

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>31/03</td>
<td>30/06</td>
<td>30/09</td>
<td>31/12</td>
</tr>
<tr>
<td><strong>Contracting</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Service</strong></td>
<td></td>
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<td></td>
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<tr>
<td><strong>Total contracting (cumulative)</strong></td>
<td></td>
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<tr>
<td><strong>Disbursement</strong></td>
<td></td>
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</tr>
<tr>
<td><strong>Service</strong></td>
<td>0.45</td>
<td>0.58</td>
<td>0.71</td>
<td>0.84</td>
</tr>
<tr>
<td><strong>Total disbursement (cumulative)</strong></td>
<td>0.45</td>
<td>0.58</td>
<td>0.71</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Annex 3

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