

Watermark of the
Coat of Arms of Romania

**THE GOVERNMENT OF ROMANIA
NATIONAL COMMISSION FOR
NUCLEAR ACTIVITIES CONTROL
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**APPROVAL CERTIFICATE
CNCAN_PD_VVR-S_01_2008**

Pursuant to article 27 of Law no. 111/1996, on the safe deployment, regulation, authorization and control of nuclear activities, republished and of the national regulations on nuclear and radiological safety,

As a result of the assessment of the documentation registered at CNCAN with No. 3857 of May 12, 2008,

Finding that the legal provisions are met,

NATIONAL COMMISSION FOR NUCLEAR ACTIVITIES CONTROL

APPROVES

**THE DECOMMISSIONING PLAN OF VVR-S NUCLEAR REACTOR,
REV.9, MAY 2008**

transmitted by:

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and Nuclear Engineering**

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Phone: 404 23 00, fax: 457 44 40, legal entity registered at the Chamber of Commerce and Industry under registration number J23/1945/2002, taxpayer ID number 3321234

according to the documentation submitted and the national regulations on radiological safety and the provisions imposed in Annexes no. 01 and 02 which are part of this approval.

**PRESIDENT,
VAJDA Borbala**
Illegible Signature

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ANNEX No 01
to the approval certificate CNCAN_PD_VVR-S_01_2008

I. REFERENCE DOCUMENTS:

1. IFIN-HH request no. 4276/05.05.2008 for the approval of VVR-S reactor decommissioning plan, rev.9, May 2008, registered at CNCAN with no. 3857/12.05.2008
 - a. Support documentation upon request: Decommissioning Plan of VVR-S Research Nuclear Reactor, revision 9, May 2008
 - i. Support documentation to the decommissioning plan, rev. 9, May 2008
 1. Support Documents for Chapters: 1, 2, 3, 4, 5, 6, 7, 8, 9
 2. Detailed Radiological Characterization Plan
 3. Characterization Survey Report.
2. CNCAN notice no. 14810/NZ/26.10.2007.
3. IFIN-HH request no. 6654/13.07.2007 registered at CNCAN with no. 6028/16.07.2007 for the approval of VVR-S reactor decommissioning plan, rev. 8, July 2007
 - a. Support documentation upon request: Decommissioning Plan of VVR-S Research Nuclear Reactor, revision 8, July 2008
 - i. Support documentation to the decommissioning plan:
 1. Facility Description
 2. Decommissioning strategy
 3. Detailed Radiological Characterization Plan
 4. Radiological Safety Assessment
 5. Health and Safety
 6. Radioactive Waste Management
 7. Characterization Survey Report
 8. Surveillance and Maintenance Plan.

II. LIMITS:

1. Decommissioning strategy : immediate dismantling
2. Limits of the decommissioning plan:

Decommissioning activities deployed on a 5200 m² surface occupied by buildings, metallic structure, underground structures consisting of tanks and pipes as follows:

 - Main building of the nuclear reactor with all the three structures (Reactor Hall, Laboratory Building and Experimental Pavilion) (building no. 22)
 - Technological ventilation (building no. 20B)
 - Metallic structure (building no. 23A)
 - Underground pipes network (building no. 20C)
 - The land belonging to the Nuclear Reactor

The limits of the decommissioning plan are presented in Annex 2.

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3. Decommissioning phases:

Phase	Starting year	Duration	Activities
Phase 1	2009	4	<ul style="list-style-type: none"> - repatriation of type HEU S-36 spent nuclear fuel - isolating VVR-S reactor common components from those of the Spent Nuclear Fuel Storage Facility (DCNU) - elaboration of DCNU decommissioning plan - obtaining the license for carrying out nuclear activities within DCNU - upgrading of the Radioactive Waste Treatment Plant (STDR) - upgrading of the Radioactive Waste National Repository (DNDR) - repatriation of LEU type EK-10 spent nuclear fuel
Phase 2	2013	3	<ul style="list-style-type: none"> - decontamination and dismantling of the primary circuit - decontamination of the hot cells - dismantling of the secondary circuit - dismantling the internal components from core zone
Phase 3	2016	5	<ul style="list-style-type: none"> - dismantling the internal components from the reactor block - demolition of the reactor block - demolition of the hot cells - demolition of de-aerator - dismantling the active drainage up to 30 m³ underground pond - final radiological survey - completion of the project

4. Decommissioning final objective:

- release from the license requirements of the following buildings, structures and lands:
 - Reactor building (building no. 23)
 - Technological ventilation building (building no. 20B) except the rooms containing equipment auxiliary to the technological ventilation and ventilation stack;
 - Metallic structure (building no. 23 A)
 - Land belonging to the Nuclear Reactor.

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II. CONDITIONS

1. The decommissioning plan of VVR-S research nuclear reactor must be reviewed in order to include the resolution of CNCAN observations stipulated in CNCAN notice no. 5396/VB/07.08.2008 as well as solving ANDRAD observations stipulated in ANDRAD notice no. 4209/18.07.2008

Deadline: 6 month before requesting the decommissioning authorization

2. The decommissioning plan of VVR-S research nuclear reactor reviewed according to condition no. 1 above must be sent to CNCAN both in Romanian and English.
3. Any modification of decommissioning plan of VVR-S research nuclear reactor needs CNCAN approval.

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ANNEX No. 02
to the approval certificate CNCAN_PD_VVR-S_01_2008

Limits of the decommissioning plan:

