

HERCA and the HERCA-WENRA Approach Instruments to meet article 99 (International Cooperation)

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ARTICLE 99

1. Cooperation with other Member States and with third countries in addressing possible emergencies on its territory which may affect other Member States or third countries.
2. In the event of an emergency occurring on its territory, each Member State shall promptly establish contact with all other Member States and with third countries which may be involved or are likely to be affected with a view to:
 1. sharing the assessment of the exposure situation and
 2. coordinating protective measures and public informationby using, as appropriate, bilateral or international information exchange and coordination systems.
3. Cooperation regarding the loss, theft or discovery of high-activity sealed sources, other radioactive sources and radioactive material of concern.
4. Cooperation with other Member States and with third countries in the transition from an emergency exposure situation to an existing exposure situation

|| HERCA AND THE WGE

HERCA is an association of Heads of Radiation Protection Authorities in Europe

Some of the goals:

- Build and maintain a European network
- Promote the exchange of ideas and experiences,
- Develop a common approach to radiation protection
- Discuss and express its consensus opinion on significant regulatory issues.

The **Working Group on Emergencies (WGE)** has actively worked to promote consistent and compatible emergency preparedness and response (EPR) arrangements within and between European countries for nuclear emergencies occurring both within Europe and elsewhere



||| THE HWA

HERCA-WENRA Approach for a better cross-border coordination of protective actions during the early phase of a nuclear accident

Approved by a joint HERCA and WENRA meeting in 2014

Consists of two parts:

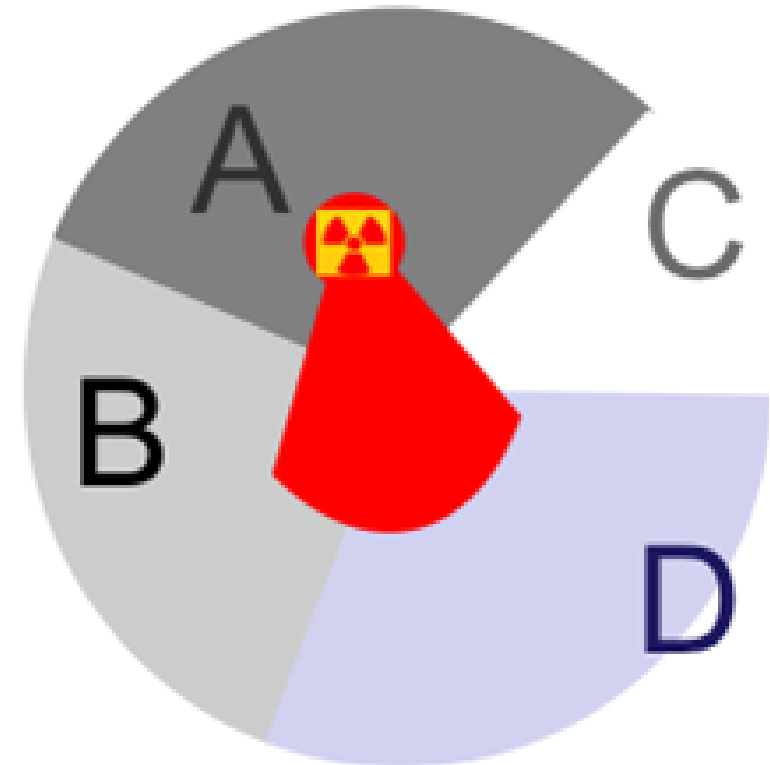
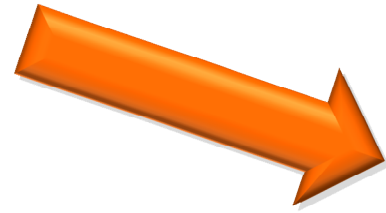
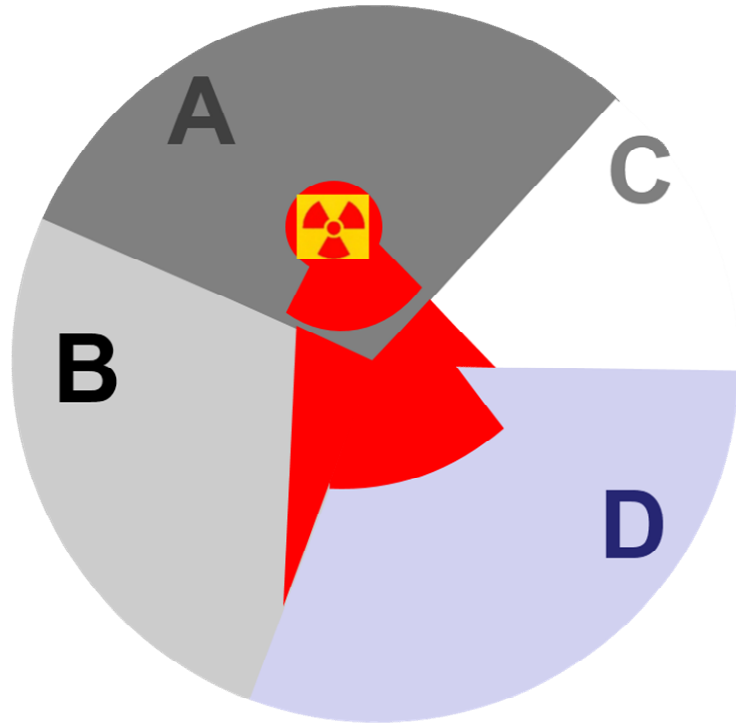
- Part I: General Mechanism
- Part II: Approach in case of a Severe Accident requiring Rapid Decisions for Protective Actions, while very little is known about the Situation



HERCA-WENRA Approach
for a better cross-border
coordination of protective actions
during the early phase of a nuclear
accident

Stockholm, 22 October 2014

THE HWA



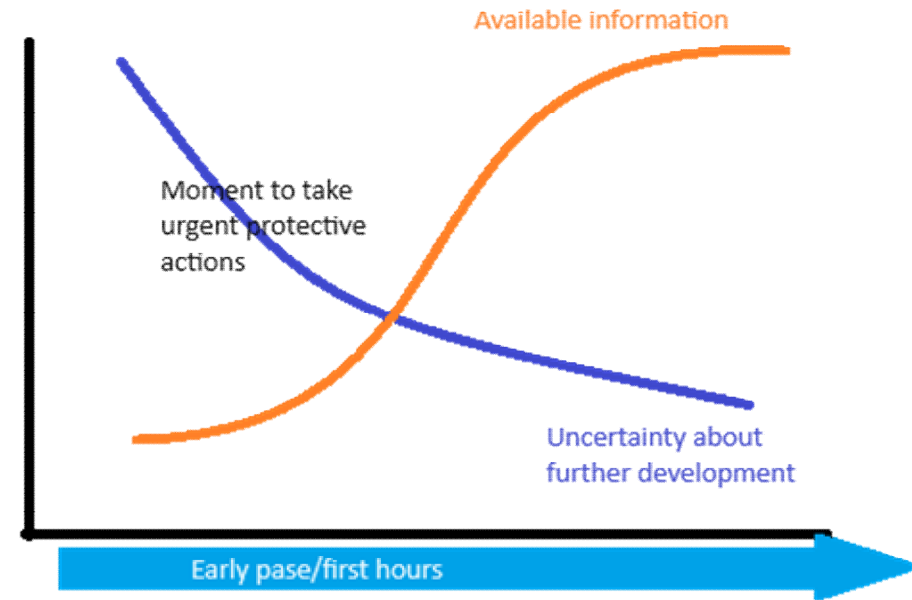
The aim is to achieve harmonization

THE HWA

The HWA relies on the following principles:

- mutual understanding
- coordination and
- mutual trust

It does not aim at proposing a uniform cross border framework



||| THE HWA. Part I. GENERAL MECHANISM

- Before an accident
 - Enhance mutual understanding and trust
- In case of an accident
 - Early phase of an accident (first hours)
Do the same as the country where the accident occurred
 - Mid-term (after the first hours)
Development of a common situation report

||| THE HWA. Part I. GENERAL MECHANISM

Mechanism in the early phase

The accident country should provide and update information required to understand the situation



Neighbouring country uses the information to check consistency of the response in the accident country



Neighbouring country aim at aligning recommendations for decisions on protective actions with accident country

||| THE HWA. Part II. SPECIAL CASE

Provides and approach in case of:

- Knowledge of an extreme event or situation creating a risk of core melt and large radioactive release (extreme natural hazard, terrorist attack, ...)
- Lack of sufficient information to rely on the use the regular EP&R arrangements
- Necessity for the safety Authorities to decide and possibly recommend immediate and consistent protective actions to the relevant national Authorities

||| THE HWA. Part II. SPECIAL CASE

Mechanism for evaluation of the situation based on:

- A simplistic and robust decision making process and criteria
- The use of Judgment Evaluation Factors (“JEFs”)
 1. Risk of core melt
 2. Containment integrity
 3. Wind direction

Protective Actions considered:

1. Sheltering
 2. Iodine Thyroid Blocking (ITB)
 3. Evacuation
- Other protective actions are not considered by the HERCA-WENRA Approach at this stage

||| THE HWA. Part II. SPECIAL CASE

Harmonized preparation of protective actions

Evacuation should be prepared **up to 5 km** around all nuclear power plants, and **sheltering** and **ITB up to 20 km**

A **general strategy** should be defined in order to be able to extend **evacuation up to 20 km** and **sheltering and ITB up to 100 km**

Radiation and nuclear safety Authorities **should continue to promote compatible response arrangements** and protection strategies in Europe

IV MEETING THE REQUIREMENTS OF ARTICLE 99

HWA	Article 99
<p>Enhance mutual understanding and trust</p> <ul style="list-style-type: none"> • Bilateral agreements • Multilateral agreements • Test of arrangements 	<p>Address possible emergencies on the territory which may affect other Member States or third countries</p>
<p>The accident country to provide and update information required to understand the situation</p>	<p>Each Member State shall, in the event of an emergency occurring on its territory, promptly establish contact with all other Member States and with third countries with a view to sharing the assessment of the exposure situation and coordinating protective measures and public information by using, as appropriate, bilateral or international information exchange and coordination systems.</p>
<p>Neighbouring country uses the information to check consistency of the response in the accident country</p>	
<p>Neighbouring country aim at aligning recommendations for decisions on protective actions with accident country</p>	

IV MEETING THE REQUIREMENTS OF ARTICLE 99

Additional features to meet Article 99

- HWA provides with a framework for the harmonized preparation of protective actions as well as a response to very severe accidents with very little information available
- HWA (and HERCA) provides with recommendations on items to be considered in bilateral arrangements
- HWA (and HERCA) provides an approach to deal with far distant accidents
- HWA framework can help implementing Article 99 paragraphs 3 and 4

Features yet to be developed to help meeting Article 99

- An approach beyond the early phase
- Consideration for other radiological and non-nuclear emergencies
- Integration of security features, including emergencies triggered by security events

V HWA APPLIED TO THE UKRAINIAN WAR

Timeline

- February 24th Russia invades Ukraine
- March 9th HERCA releases a public statement on the Ukrainian conflict. The statement derives from a joint meeting in the previous days with WENRA, ENSREG...
- March 16th WGE holds the 23rd meeting (on line) and agrees, following the concerns of HERCA and WENRA, to create a WGE Task-Force to prepare, to the extent possible, the response of HERCA and the potential application of the HWA with regard to the war in Ukraine
- March 17th WENRA holds an extraordinary meeting with regard to the war in Ukraine. HERCA is invited to such meeting
- The WGE TF Ukraine meets March 18th, 22nd, 24th, 31st, April 5th, 7th and 19th

V HWA APPLIED TO THE UKRAINIAN WAR

Main OUTCOMES of the WGE TF Ukraine

- Release of the document 'Application of the HERCA-WENRA Approach - Ukraine Conflict 2022', approved by the BoH May 20th 2022
 - A thorough document with the practical application of the HWA to a real case
 - Establishes tasks to be performed by different actors in different scenarios:

Target audience/actors	Scenarios
Ukraine	Before any emergency is declared
Neighbouring countries	If abnormal observations are detected
Rest of the countries	If an emergency (not general emergency yet) has been declared
HERCA BoH/ international organizations	If a general emergency is declared (in the early phase)
	If a general emergency is declared (beyond the early phase)

- Describes Ukraine nuclear and other potential hazards

V HWA APPLIED TO THE UKRAINIAN WAR

Main OUTCOMES of the WGE TF Ukraine

- Cross-border emergency preparedness coordination mechanisms.
 - Tier 1 countries: TF promoted the creation of a forum for Ukraine and its neighbouring countries to communicate and mutually inform each other
 - Tier 1 Countries: Ukraine, Poland, Hungary, Slovakia, Romania, Moldova
 - Questionnaire to facilitate information exchange among countries. Up to 11 issues addressed
 - Sharing of HERCA CFS with Ukraine
 - A forum to exchange coordination initiatives among affected countries
 - ✓ A way to fill a gap
 - Several meetings already held
 - Tier 2 countries: Other HERCA member countries
 - Two meetings held
- Communication
- Technical support (together with WENRA)

VI CONCLUSIONS

- HWA is a powerful instrument to meet the requirements of BSS Directive Article 99
- HWA can help implementing Article 99 paragraphs 3 and 4
- Further development of HWA can enhance the compliance with Article 99 in case of:
 - Radiological emergencies other than nuclear
 - Scenarios beyond the early phase

Thank you