

RAPPORTEURS' REPORT

Czech Republic

ENSREG NATIONAL ACTION PLANS WORKSHOP 2015

1.0 ASSESSMENT OF THE STRUCTURE OF NATIONAL ACTION PLAN

1.1 Compliance of the national action plan with the ENSREG Action Plan:

The National Action Plan on Strengthening Nuclear Safety of Nuclear Facilities in the Czech Republic contains a compilation of the conclusions and recommendations contained in the National Stress Tests Report on Nuclear Power Plants of the Czech Republic, reports from the Peer Review Process, including the Final Summary Report of the 2nd Extraordinary Meeting of the Contracting Parties to the Convention on Nuclear safety.

Update 2015: The National Action Plan on Strengthening Nuclear Safety of Nuclear Facilities in the Czech Republic contains updated information.

1.2 Adequacy of the information supplied, taking into account the guidance provided by ENSREG.

The NAcP has followed the ENSREG guidance very closely. The National Action Plan is structured, in accordance with the structure suggested by ENSREG, into four parts. Part I is devoted to the issues of external, loss of ultimate heat sink and complete loss of electrical power and their combination. Part II deals with the national organization, emergency preparedness and international cooperation. Part III is devoted to the cross/cutting issues. The focus of the Action Plan - Part IV - contains the list of measures aimed at implementing the recommendations contained in parts I - III. The set of measures contains actions identified during the PSR of NPPs, findings of IAEA missions, findings identified within the project LTO EDU and findings identified in the stress tests after the Fukushima accident.

Update 2015: Part IV - contains an updated list of measures aimed at implementing all the recommendations contained in parts I - III.

2.0 ASSESSMENT OF THE CONTENT OF NATIONAL ACTION PLAN

2.1 How has the country addressed the recommendations of the ENSREG Action Plan - (a) – d) as above

Proposed measures addressing each site specifically (Dukovany NPP and Temelín NPP) and will be implemented by the licensee ČEZ, a.s.. Measures of general nature, such as the amendment of the nuclear legislation, off-site emergency preparedness, international cooperation, etc. will be implemented by the state administration, especially SÚJB and other ministries.

The NAcP is considered as a living document which will be regularly reviewed, based on new knowledge and continuously updated.

However in some cases it is not clear to which extent the NAcP is covering some of the ENSREG recommendations/findings for example presence of hydrogen in unexpected places, ultimate heat sink, or the development/update of severe accident management guidelines.

Update 2015: Additional measures (Actions 77-84) which emerged from a detailed analysis of ENSREG documents made in the period from May to September 2013, have been added to the NAcP. Review of legislation in the field of nuclear energy to reflect WENRA Reference levels is in progress.

2.2. Schedule of the implementation of the NAcP

The implementation of improvement measures identified on European and National level in the aftermath of Fukushima is clearly scheduled. A number of measures are already implemented whereas other measures will be completed by 2015. Some of the proposed activities are scheduled after 2015.

Any problems that may affect implementation of the NAcP will be considered on case by case bases between the licensee and regulatory authority (SUJB). If an activity is to perform study or analysis, new measures may be identified based on its results. The NAcP will be updated accordingly based on results of these considerations.

Update 2015: The implementation of improvement measures identified on European and National level in the aftermath of Fukushima is clearly scheduled. Many measures with the deadline of 2015 are finished. The remaining part will be implemented during 2015-2016. Deadline for the measure No.:50 have been set on the basis of outcomes of the action No.: 49. One measure (12) has been postponed. Explanation for this postponement has been provided.

2.3 Transparency of the NAcP and of the process of the implementation of the tasks identified within it

The NAcP informs comprehensively on how the licensee intends to improve safety of NPPs. The NAcP is accessible on the regulator's website in English language. It is stated that the conclusions of the interim inspections will be made public on the regulator's (SÚJB) and licensee's (ČEZ, a.s.) websites.

Update 2015: The updated NAcP informs comprehensively on how the licensee proceeds with the safety improvements. The Czech Republic received 63 written questions and 1 comment. Written answers to questions were provided.

2.4 Commendable aspects (good practices, experiences, interesting approaches) and challenges

The NAcP addresses each site and describes specifically the status and the measures for each NPP. This is a commendable approach. Many of the measures for both Dukovany NPP and Temelin NPP are already in advanced stage of implementation since they were proposed before the Fukushima events based on the results of the Periodic Safety Reviews. For example, in the case of the Dukovany NPP this applies particularly to the seismic reinforcement initiated in 2009.

The NAcP is considered as a living document and is enforceable. The specified timeframe to implement all the improvement measures is until end of 2017. In this regard a challenge remains in implementing measures for which the timeframe has been shortened compared to the original timeframe.

A number of commendable practices were contained in the 2013 NAcP for example the extensive use of Periodic Safety Reviews to initiate further safety improvements as a precondition for further operation of NPPs.

Update 2015: The NAcP addresses each site and describes specifically the status and the measures for each NPP. Many of listed measures both Dukovany NPP and Temelin NPP are already implemented. This is a commendable result.

The regulator (SÚJB) is continuously monitoring the status of implementation of individual actions in detail. The report states that the results of analyses are regularly discussed between the regulator and the operator and implementation of actions at both NPPs is verified within inspections carried out by SÚJB inspectors.

2.5 Technical basis related to main changes and relevant outcomes of studies and analysis

Additional measures (Actions 77-84) which emerged from a detailed analysis of ENSREG documents made in the period from May to September 2013, have been added to the NAcP.

In relation to NPP Temelín (action No.: 49), analyses have shown that the proposed strategy of corium cooling outside the reactor pressure vessel (ExVC) is effective in terms of maintaining containment integrity. The necessity of installing a filtered venting to ensure long-term integrity of the containment due to the release of non-condensable gases generated during ex-vessel cooling has not been confirmed. The strategy ExVC will be implemented within action No.:50 with a deadline in 2022.

3.0 PEER-REVIEW CONCLUSIONS

The NAcP (2012) of the Czech Republic informed comprehensively and in an understandable manner how each NPP is improved in the aftermath of Fukushima according to national assessments, the recommendations and findings of the European Stress Tests and the conclusions of the CNS process.

The implementation of improvement measures is clearly scheduled.

A number of ENSREG recommendations were in 2013 already in an advanced stage of implementation. Some measures scheduled for long term were in 2013 identified during the workshop as crucial ones, like analyses for maintaining the integrity of the containment and cooling of the molten core.

The updated NAcP follows the structure proposed by ENSREG and covers all aspects specified in the ENSREG Action Plan .

The updated NAcP comprehensively and in a well understandable manner informs on how each and every NPP in the Czech Republic are progressing in safety improvements.

Review of legislation in the field of nuclear energy to reflect WENRA Reference levels is in progress.

Additional measures (Actions 77-84) which emerged from a detailed analysis of ENSREG documents made in the period from May to September 2013, have been added to the NAcP.

Action No.:50, implementation of measures for maintaining long-term containment integrity for Temelín NPP, has been specified and a deadline has been set. A highlight of analyses performed in relation to containment integrity is that the proposed strategy of ex-vessel cooling (ExVC) is effective and the necessity of installing a filtered venting to ensure long-term integrity of the containment has not been confirmed. The strategy ExVC will be implemented within action No.:50 with a deadline in 2022.