

RAPORTEURS' REPORT - ROMANIA

ENSREG NATIONAL ACTION PLANS WORKSHOP

1.0 ASSESSMENT OF THE STRUCTURE OF NATIONAL ACTION PLAN

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

Romania has followed in its National Action Plan (NAcP) the structure proposed in the ENSREG generic plan. The NAcP has provided an update of the activities performed and planned by the licensee and by the regulator after the Stress Tests and Peer Reviews in the three main topics covered in these processes. In this update the different considerations about the ENSREG's Compilation of recommendations document as well as of the Country Peer Review report, including the plant visit, and the relevant aspects of the 2nd extraordinary meeting of the Convention on Nuclear Safety (CNS) have systematically and directly addressed.

2015 No changes.

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

The NAcP elaborated by the country follows the ENSREG guidance quite closely. The report contains two short introduction chapters ("Introduction" and "General Information about the Action Plan Post-Fukushima"), and four additional chapters ("Parts") containing detailed information about the action plan.

Part I and Part II describe in an orderly manner the actions related to Topics 1-3, and Topics 4-6, Part III contains a short section for "Conclusions and generic activities" and, finally, Part IV incorporates four detailed tables describing: Table 1, the Romanian Action Plan; Table 2, the correspondence between Country peer review recommendations and the improvements outlined in Table 1; Table 3, the correspondence between ENSREG generic compilation of recommendations and the improvements outlined in Table 1; and Table 4, the correspondence between CNS 2nd Extraordinary Meeting Summary Report and the improvements outlined in Table 1.

2015. The report has been updated throughout in a clear manner, with all changes highlighted. Table 4 has been removed – with no detriment to the overall report.

2.0 ASSESSMENT OF THE CONTENT OF NATIONAL ACTION PLAN

2.1 How has the country addressed the recommendations of the ENSREG Action Plan?

The aspects from the "national action plan table 2012-10-16", the NAcP guidance document compiling the ENSREG and CNS recommendations, have been covered. In particular, the topics from the ENSREG's document "Compilation of Recommendations and Suggestions" have been explicitly referenced to with some few exceptions that were well clarified during the workshop (in some cases by precise reference to the content of the Romania Stress Tests Final Report).

2015. No changes.

2.2. Schedule of the implementation of the NAcP

All the planned improvement actions are scheduled to be completed no later than end of 2015, which must be considered a very positive aspect of the Plan. The completion of the improvement measures is scheduled as follows: at this moment, 15 measures are already implemented, 13 will be finished this year, other 9 will be completed in 2014, 4 are scheduled

for 2015 and the remaining 2 (out of 43) are considered pending on EU-actions or as a “continuous activity”. It is important to remark that no very relevant back fitting measures are scheduled for the long term (2015).

2015. Substantial progress has been made in 2013-2014. The table below summarises the status of all the actions from the Romanian national plan. It is noted that for many of the tasks “in progress”, good progress has been made with many modifications partially implemented and waiting for outage opportunities to complete them, for the most significant overdue improvements, compensatory actions have been implemented.

<i>Year/Status</i>	<i>End 2012</i>	<i>End 2014</i>
<i>Implemented</i>	<i>15</i>	<i>31</i>
<i>In progress</i>	<i>18</i>	<i>11</i>
<i>Planned</i>	<i>9</i>	<i>1</i>
<i>Under evaluation</i>	<i>1</i>	<i>0</i>

The key items to complete the work are the new on-site and off-site emergency response centres. Progress has been made, but they are now due in 2017 and 2015 respectively. No additions or removed actions to / from the original plans are reported.

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

The NAcP informs comprehensively and clearly how the NPPs in the country shall be improved in the aftermath of Fukushima according to the National assessments, the recommendations and suggestions of the European Stress Tests and the conclusions of the CNS process. The implementation schedules are clearly provided.

The NAcP is accessible, in English language, on the regulator’s website.

2015. No changes.

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

The clear program of work and the ambitious proposed schedule (ending by end of 2015) demonstrate a strong commitment to improve the safety of the Romanian NPP in the light of the events of Fukushima.

The following aspects of the NAcP are also considered commendable:

- The priority on the external electric power supply recovery to the NPP is considered a good practice.
- Building a new on-site emergency centre, which is seismically robust and protected against external hazards as well as the development of a new off-site emergency control centre located away from the site are good practices.
- The prompt implementation of relevant containment protection measures (PARs, seismically qualified filtered venting).
- Romania considers the enhancement of instrumentation and monitoring under severe accident conditions (especially in the long term) as a challenge. (ENSREG Recommendation 3.2.5)

2015 Update. The enhancement of instrumentation and monitoring for severe accident conditions has been solved by the Supply Chain, and qualified equipment is being installed. CNCAN has also suggested that the inspection and assessment by the regulator of the control room staff training and qualification against SAMG actions as a good practice, as well as the annual inspection plan including verification of post-Fukushima improvement programmes.

Completing the on-site and off-site emergency control centres remains challenging and will need regulatory attention to ensure no further slippage in the programme of work.

Delivering an approach to the analysis of the ultimate capacity of safety related systems and structures facing potential cliff edge effects induced by extreme environmental loads remains an open topic which Romania has identified as needing further work by the EU and other bodies. With no common approach to margin analysis and its relationship with ultimate load capacity (if margins are high, does the ultimate load capacity need to be determined at all), there is the potential for a variety of approaches to emerge making comparison and peer review difficult or inaccurate.

2.5 Technical basis relating to main changes and relevant outcomes of studies and analyses in 2015.

There are no substantial changes to the delivery schedule, with all but two activities to be completed on plan in 2015. The two topics delayed beyond 2015 are the installation of severe accident qualified instrumentation which has now started and is scheduled to finish in 2016, and the construction of a new on site hazard qualified emergency control centre, scheduled for 2017. For the C&I equipment, the delay was due to the lack of availability of qualified equipment (now resolved by the supply chain). For the control centre the reason for the delay was explained at the workshop and the compensatory measures described.

No changes have arisen to the planned improvement programme from the studies and analyses completed to date, including the Level 1 and 2 PSA studies. The extreme weather hazard qualification to date has been for 10^{-3} events, but the new regulation implemented by CNCAN in January 2015 is for 10^{-4} and the licensee is currently undertaking the relevant studies.

3.0 PEER-REVIEW CONCLUSIONS

2013 Workshop summary: The NAcP informs comprehensively and clearly how the NPP will be improved in the aftermath of Fukushima according to the National assessments, the recommendations and suggestions of the ENSREG Peer Reviews carried out after the Stress Tests, the conclusions of the CNS process and other sources.

The NAcP follows the structure proposed by ENSREG and covers all aspects specified in the ENSREG Action Plan, with some exceptions that were clarified during the workshop. The NAcP – along with all EU stress test documents – is accessible on the regulator's website in English language.

The implementation of improvement measures is clearly scheduled, and the end date of the process (2015) is considered ambitious and commendable. *2015 Update, Only two of the planned improvements have slipped beyond the original target date of 2015, see details below.*

Romania considers the enhancement of instrumentation and monitoring under severe accident conditions (especially in the long term) as a challenge. (ENSREG Recommendation 3.2.5) *2015 Update, this has now been solved by the supply chain and installation of severe accident qualified equipment is underway with completion scheduled for 2016.*

During the workshop several other good practices have been identified in the NAcP. These are e.g. the construction of a new on-site emergency centre, which is seismically robust and protected against external hazards as well as the development of a new off-site emergency control centre located away from the site or the prompt implementation of relevant containment protection measures as passive autocatalytic recombiners and seismically qualified filtered venting. *2015 Update: The second delayed activity is completion of the hazard qualified on site emergency control centre, the reasons for the delay were explained in the Questions and Answers and at the Workshop, and the compensatory mitigations temporarily in place were also described.*