UK - United Kingdom

UK RAPPORTEURS' REPORT

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 UK NAcP has been prepared in accordance with the NAcP template issued by ENSREG. The NAcP addresses all recommendations from the ENSREG compilation of recommendations. Additionally, all sections contain an update of the National Stress Test Report and of the ENSREG and country specific Peer Review Report.

The report has been produced as a current statement of UK Regulators Actions related to Post-Fukushima lessons learnt and stress test peer review recommendations and suggestions contained within the UK post Japanese earthquake and tsunami implementation plan.

The update of the country specific peer review provided at the beginning of the different sections does not clearly present all the recommendations formulated by the peer review team and does not clearly mention how these recommendations were taken into account. However, the peer review outcomes are mapped across to the interim and final chief inspector's recommendations. The peer review outcomes were also detailed in the country presentation and were discussed in the following session.

The aspects from the CNS Summary Report are incorporated, but not explicitly addressed.

As additional topics not part of ENSREG or CNS consideration, five areas have been considered, namely planning controls, safety assessment approach, research, spent fuel strategies and human capabilities and capacities. Openness and transparency are discussed in a separate subsection.

2015 update: No changes.

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

The UK NAcP follows the ENSREG national action plan guidance very closely, as it is prepared in accordance with the NAcP template issued by ENSREG.

The NAcP consists of four parts, describing topics 1 to 3, topics 4 to 6, additional topics and the implementation.

A first included table lists the Stress Test Findings and the work carried out to address these findings. Another included table lists the Interim and Final Recommendations. Actions from these findings and recommendations are mapped across the Peer Review Outcomes and the ENSREG compilation of recommendations, with the corresponding timescales and milestones.

An executive summary has been added before the introduction. The national action plan also includes a conclusion, a reference table and a table of abbreviations. Two annexes were added on "ONR recommendations and findings" and on "Information Requested in the NAcP template".

2015 update: No changes.

2.0 ASSESSMENT OF THE CONTENT OF NATIONAL ACTION PLAN

2.1 Measures to address the recommendations of the ENSREG Action Plan - (a) – d) as above

UK has established a list of 19 Stress Test Findings, 25 interim recommendations and 11 final recommendations from the national stress tests report that meet the recommendations of the ENSREG action plan.

Recommendations of the peer review country report which were not clearly addressed in the NAcP, for example the recommendations regarding design basis earthquake or design basis flood, were included in the country presentation and described in more detail in the ensuing discussions.

The aspects of the ENSREG compilation of recommendations and suggestions are explicitly referenced and all the actions mentioned above are adequately addressed.

2015 update: No changes

2.2. Schedule of the implementation of the NAcP

As mentioned in the National Action Plan UK, all planned actions will be implemented by the end of 2014 (Q4 2014), with a majority planned for 2013.

Most actions are studies, assessments or reviews. No major design modifications currently arise from the studies, asides from the filtered containment venting, which is currently under consideration.

Soon after the Fukushima accident, additional back-up equipment was purchased and passive autocatalytic re-combiners were installed.

For the Wylfa Magnox reactor, actions were taken to realise safety benefits with short implementation times, noting that extended actions would surpass the remaining life time.

2015 update: Consequent progress have been made since the previous national action plan in 2013 regarding the implementation of the stress tests findings, the interim recommendations and the final recommendations*. The table below shows the status and the progress of the different findings of the UK action plan.*

Status / year	*End 2012*	*End 2014*
Stress tests Findings	*19*	*19*
Completed	*3*	*10*
Ongoing	*16*	*9*

It has to be noticed that for several findings, the status is still ongoing even though the studies planned have been realized on time, as for example in findings STF-2, 3 and 6 for which the ongoing status is justified by an oversight action of ONR to be performed in 2015 in order to control the implementation of the action. In some other cases, as for example STF-5, the studies initially planned in 2013 or 2014 have been delayed to the second quarter of 2015.

Clarification was given at the meeting that extensions to timescales involved ONR requests for further work or information from the licensee in order to obtain a robust close out position. This approach was preferred by ONR rather than driving to original milestones.

Interim and final recommendations are not included in the above table as there are only recommendations and the updated action plan does not give sufficient details on the actions associated with each recommendation and on their finalization. In addition, some identified actions are part of the normal on-going business and can be considered as completed.
Finally in the updated plan, all remaining actions should be implemented by the end of 2015.

The feasibility study for the installation of the filtered containment venting has been completed and a decision on installation at Sizewell B is being made in 2015.

In the updated action plan, item 78 refers to Wenra reference levels and does not take account of the new set of reference levels issued in 2014.The UK response to questions submitted from ENSREG clarified that the UK has led in the production of the 2014 RLs and has implemented them within national requirements.

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

In section 3, as an additional topic, the UK has proposed two recommendations to improve openness and transparency.

The UK's national action plan is published on the ONR website, along with an implementation report and other relevant documents. A link to the ENSREG website is also available for access to the UK and other NAcPs.

2015 update: One major progress in this field is the new Energy Act in 2013 that creates now ONR as an independent statutory body, based on the better regulation principles of transparency, accountability, proportionality and consistency. This Act was pending in April 2013 for the previous review of the NAcPs. ONR officially became an independent statutory body on 1st April 2014.

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

The large scale, multi-unit exercise, which is planned for spring 2014, will provide a proof of concept for back up equipment and associated arrangements. Together with the future nuclear emergency exercise program to test the on-site, off-site and central government responses for prolonged periods, the experience from these exercises will improve the emergency preparedness.

The availability of multi-use modular accommodation and command units and other emergency back-up equipment in dedicated strategic depots, with the associated 20-year specialist maintenance contracts that assure operability in emergency situations, are an interesting approach which is considered a good practice.

Where appropriate, the draft action plan was reviewed by other agencies, for example the UK Environment Agency, which adds an alternate point of view.

Methodologies for the re-evaluation of hazards margins to confirm the absence of cliff edges remains a topic of discussion.

2015 update: The large scale multi-unit exercise has been performed in May 2014 at Heysham 1 and 2. Such kind of exercises are planned to be carried out periodically in the future. UK agreed to provide feed-back of the exercise that will be available for the European community.

The measures proposed for emergency preparedness i.e multi-use modular accommodation, command units and other back-up equipment are available in three strategic depots spread over the national territory. One depot is dedicated to two units and, in case of additional needs, the two other depots can be used to provide the required additional equipment on site.

Two new good practices have been identified since 2013:
1- Large capacity water bags from stocks of military equipment are available and stored at back up equipment depots in order to deal with large volume of contaminated water.
2- The management of traumatic and psychological stress developed by EDF Energy.

Re-evaluation of hazards margins is part of STF-5. Technical reviews are undergoing for flooding and extreme weather. The completion date is the second quarter of 2015. At the moment, no cliff edge effects have been identified.

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

No significant changes have been made to the programme and therefore no technical basis is required since the 2013 meeting.
There are no relevant changes following the outcomes of studies and analyses, they have confirmed the existing position is robust.

3.0 PEER-REVIEW CONCLUSIONS

The UK NAcP gives comprehensive and understandable information on the safety improvements of the UK nuclear power plants after Fukushima, taking into account the national stress tests, the recommendations and suggestions of ENSREG and the CNS summary report.

The NAcP closely follows the structure proposed by ENSREG. The following additional topics are addressed: planning controls, safety assessment approach, research, spent fuel strategies and human capabilities and capacities.

The UK's national action plan is published on the ONR website, along with an implementation report and other relevant documents. Additionally, the UK has included recommendations to improve openness and transparency.

In 2013, all actions were planned to be implemented by the end of 2014, with a majority planned for 2013, which is a very tight schedule.
In 2015 some actions have been shifted to end 2015, probably due to the initial tight schedule.

Most actions are studies, assessments or reviews, further modifications may result from these. No major design modifications currently arise from the studies, asides from the filtered containment venting, which is currently under consideration. Soon after the Fukushima accident, additional backup equipment was purchased and passive autocatalytic recombiners were installed at Sizewell B.

The feasibility study for filtered containment venting was completed in 2014. A decision on installation of the filtered containment venting at Sizewell B is being made in 2015 and this is a challenge for UK.

For the Wylfa Magnox reactor actions were taken to realise safety benefits with short implementation times, noting that extended actions would surpass the remaining life time.

The UK has defined several actions regarding emergency preparedness, including a future exercise program to test on-site, off-site and central government responses for prolonged periods. A large scale multi-unit exercise was performed in May 2014. UK plans to carry out periodically such exercises in the future and plans to provide feedback on the lessons learned from the exercises that will be available for the European community.

In 2013, methodologies for the re-evaluation of hazards margins to confirm the absence of cliff edges were a topic of discussion.
In 2015, most studies have been performed. Technical reviews are undergoing for flooding and extreme weather. The completion date is the second quarter of 2015. At the moment, no cliff edge effects have been identified.

Another addition to the emergency preparedness is the availability of multi-use modular accommodation and command units and other emergency back-up equipment in dedicated strategic depots, with the associated 20-year specialist maintenance contracts that assure operability in emergency situations, which is considered a good practice.
In *2015, the measures proposed for emergency preparedness i.e multi-use modular accommodation, command units and other back-up equipment are available in three strategic depots spread over the national territory. One depot is dedicated to two units and, in case of additional needs, the two other depots can be used to provide the required additional equipment on site.*

Two new commendable aspects linked to emergency exercises have been identified in 2015. To deal with large volume contaminated water, UK has available large capacity water bags from stocks of military equipment that are stored at back up equipment depots.
The second aspect relates to the management of traumatic and psychological stress, developed by EDF energy. The actions include a trauma management pilot scheme and a range of related policies, procedures and training courses.