

RAPPORTEURS' REPORT - SWEDEN
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:

The National Action Plan of Sweden contains a compilation of conclusions and recommendations derived from the Compilation of Recommendations of ENSREG, key topics of the 2nd Extraordinary Meeting under the CNS, the state review of stress test results and findings of the Peer Review Country Report.

The country followed the structure proposed in the ENSREG Action Plan. National EU-Stresstest results were considered as well as ENSREG and CNS aspects.

The measures for Topics 1-3 are listed according to the national classification. There are no explicit references to the corresponding ENSREG recommendations and suggestions, Country Peer Review recommendations and aspects from CNS. Such references would have been helpful for assessing the content of the NAcP.

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

The overall structure of the Swedish NAcP follows the ENSREG guidance. The proposed outline was adopted with Parts I – IV as recommended by ENSREG. An introductory section provided general data about the sites and plants, including measures already taken due to the Fukushima accident.

It is notable that the central Swedish spent fuel storage facility CLAB was included in the national stress test.

In the presentation at the Workshop, it was shown that relevant measures for severe accident management had already been taken in the 80s. Further measures were taken after a new regulation entered into force in 2005.

2.0 ASSESSMENT OF THE CONTENT OF NATIONAL ACTION PLAN

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

It is stated in the Swedish NAcP that most of the actions described in the NAcP are investigations for which the aim is to determine and consider which measures are fit for purpose, how they shall be implemented, and the time for implementation. All actions of the plan are prescribed to all plants; the measures which will result from the investigations

are likely to be more plant-specific.

The Swedish NAcP is based on site-specific action plans which have been presented by the licensees but not yet been reviewed by SSM; definitive establishment and completion of the site-specific action plans will be the first step of implementation of the NAcP. The interplay between planning on national and site level is complicated and not fully explained in the NAcP, but was clarified in presentation and discussion at the WS.

SSM will in early 2013 issue a decree to the licensees, including parameters and parameter values to clarify the level of ambition of the measures in the NAcP, in order to establish a framework for a consistent and quality assured process to further improve reactor safety. The further process will be monitored (annual status report from licensees to authority) and followed up with new decrees by SSM to secure implementation of measures. The actions listed in the Swedish NAcP cover all of the ENSREG and Country Peer Review recommendations. In the absence of explicit references to these recommendations, it is difficult to establish the correspondence between actions and recommendations in each case. However, the consideration of the recommendations was clarified in the presentation and the discussion at the workshop. The only case where this could not be fully verified, ENSREG recommendation 3.3.16 (Severe Accident Studies), is of minor importance.

It should also be noted that the methods applied for investigations and analyses of natural hazards (Section 1.2 of NAcP) are not fully described.

2.2. Schedule of the implementation of the NAcP

The measures listed in the NAcP are scheduled in three categories: Completion by the end of 2013, by the end of 2014 and by the end of 2015. It has to be noted that this mostly concerns investigations, as pointed out above.

Implementation of the necessary technical and administrative measures, as a consequence of the investigations, will follow afterwards (until 2020 at the latest). In the NAcP, it is stated that SSM considers it as highly likely that the majority of necessary technical and administrative measures will be implemented before 2020 to make sure that implementation takes place as soon as reasonably possible. However, no definite deadlines or milestones are defined between 2015 and 2020.

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

The NAcP contains comprehensive information on the actions planned post-Fukushima, as well as background information on the European context of the activities and on the Swedish nuclear power plants.

The process to plan the activities in Sweden, for example the interplay between planning on the national and the site level, could be better described. Also, the lack of direct referencing between actions and ENSREG and Country Peer Review Recommendations ren-

ders it difficult to get an overview for the review of the implementation of these recommendations.

The NAcP is accessible both on the regulator's and the ENSREG website. Its implementation will be closely monitored by SSM, and the implementation process is to be transparent for all stakeholders. The annual status reports will be published.

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

Specific safety goals in terms of timespans for keeping a safe plant state (e.g. in case of total loss of AC power) have been set in Sweden, which can be regarded as a good practice. It is also commendable that the implementation of severe accident management measures has begun in the 1980s.

A return frequency of 10^{-5} /year is used for plant reviews and backfitting for all natural hazards.

The time schedule presented in the NAcP focusses on investigations, and does not provide detailed information on the schedule for the resulting technical and administrative measures. Establishing appropriate, comprehensive and consistent schedules for these measures constitutes a challenge and will need comprehensive planning, also taking into account that the pre-Fukushima modernization program is still on-going. The final deadline provided for all related activities (2020) is later than most other countries. However, the implementation of the majority of the measures is expected before this year, but the definite deadlines cannot be provided before the investigations are completed.

3.0 PEER-REVIEW CONCLUSIONS

The NAcP follows the structure proposed in the ENSREG Action Plan. It contains comprehensive information on the actions planned in the aftermath of Fukushima, as well as background information on the European context of the activities and on the Swedish nuclear power plants.

The actions listed in the Swedish NAcP cover the ENSREG and Country Peer Review recommendations as well as CNS recommendations. However, there are no explicit references to the corresponding recommendations which would have been helpful for the review.

The NAcP mainly presents investigations for which the aim is to determine and consider which measures shall be implemented, and the time for their implementation. So far, there is a clear and relatively tight schedule for the activities. However, the subsequent implementation of the technical and administrative measures resulting from the investigations is a complex task which will constitute a challenge to generate an appropriate, comprehensive and consistent schedule for these measures. The final deadline provided for all related activities (2020) is later than most other countries. However, the implementa-

tion of the majority of the measures is expected before this year, but the definite deadlines cannot be provided before the investigations are completed. It is notable that the central spent fuel storage facility CLAB has been included in the stress test.

Specific safety goals in terms of timespans for keeping a safe plant state (e.g. in case of total loss of AC power) have been set in Sweden, which can be regarded as a good practice. It is also commendable that the implementation of severe accident management measures has begun in the 1980s and that Sweden applies continuous improvements and is implementing extensive modernization programs.

The implementation of the independent core cooling systems should be considered with high priority and will be regarded as a challenge.