10. CONCLUSIONS AND RECOMMENDATIONS

A large amount of work has already been performed in the research, development and operational practise of inverse steam generators. The work focused on:

- The experimental research and analytical studies into leak conditions and concequences at steam generator models,

- Manufacturing of both steam generators (MMISG and MISG),

- Putting into operation of the micromodule inverse steam generator (MMISG) and the module inverse steam generator (MISG) at BOR 60 reactor,

- A long-term testing of the MMISG and MISG,

- The analysis of design and operational characteristics of both inverse steam generators,

The following summarization of experiences gained from a long-term testing of both inverse steam generators at BOR 60 can be drawn:

- a good agreement was achieved between the design and the operational characteristics,

- a high operational reliability and availability is typical for both inverse steam generators,

- simple leak detection and monitoring system are used because of excellent safety characteristics of inverse steam generators,

- the MISG poseses more advantageous ratio of the total structure mass to the thermal power than the MMISG,

- the module inverse steam generator design seems to be very perspective for applications at large commercial LMFBRs.

In conclusion, the following recommendations are proposed:

- To continue a long-term testing of both inverse steam generators at BOR 60.

- To prepare and carry out a series of leak tests at the MMISG at BOR 60

- To prepare a basic design of a module inverse steam generator in accordance to the MISG solution with a unit thermal power of 125 MW and 250 MW for large LMFBRs.

- To exchange information on design and operational characteristics of inverse and traditional steam generators with other countries.