The work on the Y2k issue in Sweden

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1. Problems encountered with the new millennium will not pose a threat to reactor safety.

When originally delivered, the Swedish nuclear power plants did not use any computers that affected safety or operation. The changes that subsequently occurred are well documented, and there is a good possibility of tracing any possible problems that may exist. The nuclear power utilities are handling the problem areas that have been identified in a way considered adequate to ensure that all systems vital to reactor safety are classified as year-2000 compliant. 2. Steps are being taken to minimise the risk of disruptions in operation

In setting priorities, the nuclear power utilities have placed special emphasis on systems which are important to availability. This is done to reduce the risk of disruptions that may result in the need for safety systems. This can also lead to a reduced risk for the loss of the production capacity that nuclear power plants provide, as seen from society's perspective. 3. The work carried out by the licensees is serious, well organised, with well-structured work methods.

The work is being carried out in the form of well-defined projects reporting directly to the President of each utility. Handbooks have been produced containing instructions for how the work should be performed and documented. If analysis shows that corrective action is called for, this action will be carried out according to well-proven procedures for modifying the facility, which should ensure the quality of the actions taken. 4. The work performed is planned to allow adequate margins in the event of unexpected problems.

The work is being performed according to schedules that allow sufficient margins for dealing with additional problems. Analysis and corrective actions on systems crucial to reactor safety will be essentially completed before the end of 1998. This applies to a great extent to systems essential to maintaining availability. 5. Steps are being taken to minimise the risk of external events affecting reactor safety or availability.

As part of the work by the nuclear power utilities, studies are being made on scenarios for external events that can occur. A determination is also being made of plans and consequence mitigation measures needed to minimise the impact on the power plant. Renovations at a number of plants during the past few years have increased the capacity for maintaining house load operation in the event of a loss of offsite power. This facilitates quick resynchronisation of the unit to the grid when offsite power is restored. 6. At present, no further directives to the licensees are necessary and work can proceed as planned.

SKI's evaluation, based on the reports submitted and other information, is that problems associated with the year 2000 are being managed by the nuclear power utilities in such a way that no further directives are called for at this time. However, SKI will closely monitor the continuing work at the nuclear power utilities and will, if necessary, decide upon additional directives.

The different steps in the procedures

- 1. Identification
- 2. Classification and setting priorities
- 3. Analysis
- 4. Corrective actions and Verifications

Identification

This is the most important part of the work. To be sure that every object of interest is identified different methods are used.

- Review of the inventory list and documentation of the plant
- Special review of the safety systems and systems important to safety
- Review of objects identified as important for safety in different types of safety analysis as PSA
- Interview of maintenance personnel

Classification and setting priorities

Identified components have been divided into categories which form the basis for continued work and determine the quality requirements that will be set for further analysis and verification.

Two different classes: Safety Class and Time Class The Safety Class is based on the component's effect on safety and availability

The Time Class is based on the point in time when possible tests and actions on the component can and must be taken

Analysis

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- Contact with the supplier
- Evaluation of the respons from supplier
- Performing own analysis
- Performing tests





Corrective actions and Verification

The normal line organisation is responsible that the plant/systems are Y2k safe

All corrective actions are performed with the normal routines for plant changes

Verifications are performed showing that the systems are Y2k safe