FINLAND

FINANCIAL PROVISION FOR FUTURE NUCLEAR WASTE MANAGEMENT IN FINLAND

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General

The main principle as regards nuclear waste management in Finland is that the operator that has produced nuclear waste is responsible for the management of all such nuclear waste. It has to take care of its waste (including that of decommissioning) until it has been disposed of in a manner accepted by the authorities. Spent nuclear fuel is considered to be nuclear waste subject to disposal into a final repository.

According to the Nuclear Energy Act, all nuclear waste produced in Finland must be handled, stored and disposed of in Finland. The spent fuel and other nuclear wastes are stored at the power plant sites until they are disposed of. At the both two sites there already are the final repositories for low and intermediate level waste.

Financial provision and The State Nuclear Waste Management Fund

The financial provision for all nuclear waste management, including dismantling and decommissioning, has been arranged through the State Nuclear Waste Management Fund. The main objective of the system is that at each moment there shall be sufficient funds available to take care of the remaining nuclear waste management measures caused by the waste produced up to that moment. Payments to the fund are based on liabilities, which are yearly estimated. Accordingly, the capital of the Fund is annually adjusted, normally with additional contributions from the licence-holders, but repayments from the Fund to the operators are also possible if the fund capital exceeds the current liability. The part of liability that is not covered by money in the Fund must always be guaranteed by full securities.

The Fund does not pay for the waste management measures but keeps in safe the money corresponding to the costs of the remaining measures. Theoretically, all the funds have been returned to the operators when they have carried out all the necessary waste management operations. For these reasons, the Fund could be described as a “guarantee fund”.

The licence-holders are entitled to borrow back 75% of the capital of the Fund against full securities and at current interest rate. In addition to that, the State has the right to borrow the rest of the capital.
Each licence-holder can be said to have its own “account” in the Fund and the State authorities regularly establish the required balance of that account. In the case where the licence-holder is no more capable to take care of its obligation for financial provision and/or measures of waste management, the State can take over both the waste and the “account”. The securities furnished by the licence-holder to the Fund guarantee that the Fund can return funds to the State in time with the actual waste management measures.

**Liability estimates and the yearly procedure**

Plans and cost estimates for the remaining measures of nuclear waste management are yearly updated by the nuclear power companies themselves and the reports submitted to the Ministry of Trade and Industry. The cost estimates are made according to the current plans and technology. Thus changes or corrections in plans, possible innovations and changes in the cost level as well as changes in national policy may change the assessed liability. The Radiation and Nuclear Safety Authority (STUK) and VTT Technical Research Centre of Finland review the proposals and give their opinions to the Ministry. The assessed liability and fund target of each licence-holder are then confirmed by the Ministry. No discounting is used, but the costs and the fund targets are always estimated on the basis of the current price level.

To handle high fixed costs and also major changes, the fund target can be less than the assessed liability. Detailed instructions for those are included in the legislation. Always, as a precaution against insolvency, the part of the assessed liability that is not covered by the money in the Fund must be covered with securities furnished by the licence-holder. The securities are given to the Ministry of Trade and Industry, not to the Fund. Mortgages on a nuclear power plant itself cannot be accepted as securities. Each security has to be separately accepted by the Ministry. As an additional precaution against unforeseen events, supplementary securities covering 10% of the assessed liability must be given to the Ministry.

**Organisation and operation of the Fund**

The State Nuclear Waste Management Fund, founded in 1988, is a special-purpose fund, segregated from the State budget. Its task is to collect, hold and invest in a secure way the funds needed to guarantee the future management of nuclear waste. The Ministry of Trade and Industry controls that the operation of the State Nuclear Waste Management Fund complies with the legislation.

Each year, after the Ministry has confirmed the fund targets, it is up to the Fund to see that the licence-holder’s share of the capital in the Fund is balanced with the fund target. The Fund has a Board of four members nominated by the Government and a Managing Director, secretary and accountant, all part-time.

At the moment the Fund capital is about 1 260 million euro. In 2002 the profit of the Fund was 48 million euro.
Conclusion

The funding system is based on the principle that, if a nuclear facility would stop its operation and also stop to produce more waste, the money in the Fund and the securities given to the State would, together, always suffice to handle the situation and take care of the management of all the existing waste and dismantling and decommissioning of the plant. As the actual waste management measures would not be taken immediately, the interest accrued, in the meantime, by this existing capital is used to compensate for the inflation and cost escalation.

The critical question is how the system takes into account the difficulty of arriving at reliable estimates. The Finnish funding system contains some built-in features to minimise the risk of the State having to contribute additional funds to carrying out these operations. The system continuously requires new updated estimates that must take into account the practical experience accumulating world-wide. The estimates must, however, always be based on technology currently available. Additionally, the law also requires that the uncertainty of available information about prices and costs shall be taken into account, in a reasonable manner, as raising the estimated liability.

In the case, where a facility would unexpectedly stop its operation and the funds should be transferred to the State, the Fund has full rights to require the licence-holder to pay its loans back to the Fund or, alternatively, to realise the securities. The interest of this capital is also available to the State and is assumed to compensate for inflation and related cost escalation. The State can also, if there is a need, realise the 10% supplementary securities.