

Licensing process in Finland

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In accordance with the Nuclear Energy Act, the use of nuclear energy constitutes operations subject to licence. The licensing process and conditions for granting a license is defined in the legislation. The licenses are applied for and granted by the Government. This paper discusses briefly the licensing process in Finland and also the roles and responsibilities of main stakeholders in licensing.

Licensing of a nuclear power plant in Finland has three steps. The first step is the Decision in Principle (DiP). Goal of DiP is to decide whether using nuclear power is for the overall good for the Finnish society. The second step is Construction License (CL) and the goal of CL phase is to determine whether the design of the proposed plant is safe and that the participating organisations are capable of constructing the plant to meet safety goals. The third step is the Operating License (OL) and the goal of the OL phase is to determine whether the plant operates safely and licensee is capable to operate the plant safely.

Main stakeholders in the licensing process in Finland are the utility (licensee) interested in using nuclear power in Finland, Ministry of Employment and the Economy (MEE), Government, Parliament, STUK, the municipality siting the plant and the general public. Government grants all licenses, and Parliament has to ratify Government's Decision in Principle. STUK has to assess the safety of the license applications in each step and give statement to the Ministry. Municipality has to agree to site the plant. Both STUK and the municipality have a veto right in the licensing process.

1. Decision in Principle phase

Before a Construction License for a nuclear power plant, nuclear waste disposal facility, or other significant nuclear facility can be applied, a Decision in principle by the Government is needed. A condition for granting the DiP is that the operation of the facility in question is in line with the overall good for society. Further conditions are that the municipality of the intended site of the nuclear facility is in favour of constructing the facility and no factors indicate a lack of sufficient prerequisites for constructing the facility according to the regulations. The coming into force of the DiP further requires that it will be confirmed by the simple majority of the Parliament. The Parliament cannot make any changes to the Decision, it can only approve it or to reject it as it is.

STUK has to make a preliminary safety assessment of the application. In its safety assessment, STUK states whether any factors have arisen indicating a lack of sufficient prerequisites for constructing a nuclear facility that fulfills Finnish safety requirements. To perform a preliminary safety assessment, descriptions of the plant options, proposed site and applicant's organisation have to be submitted to STUK.

In accordance with the Nuclear Energy Decree, the licence applicant shall also submit an assessment report in accordance with the Act on Environmental Impact Assessment (EIA) Procedure (468/1994) when applying for a Decision in Principle. STUK will provide a statement about the environmental impact assessment programme and the assessment report. Ministry of the Employment and the Economy is the contact authority for EIA process.

2. Construction License phase

The Construction Licence for a nuclear facility shall be applied for from the Government. Application is submitted to the MEE, which asks statements from all stakeholders to prepare the license application for the Government decision.

STUK issues a statement on the application for the Construction Licence. The statement is supplemented with a safety assessment. The preconditions for granting the Construction Licence are defined in Sections 18 and 19 of the Nuclear Energy Act. In its safety assessment, STUK takes a stand on the fulfilment of the requirements laid down in the relevant legislation and YVL Guides regarding the issues STUK is responsible for. When preparing the safety assessment, STUK requests from the Ministry of the Interior a statement on the physical protection and emergency response arrangements.

When applying for the Construction Licence, the documents listed in Section 35 of the Nuclear Energy Decree, and other reports considered necessary by STUK shall be submitted to STUK for approval. STUK issues a statement about the Construction Licence application only after having approved essential parts of each of these documents by a separate decision. Documents to be submitted to STUK for review are among others Preliminary Safety Analysis Report (PSAR), Safety Classification document, quality manual for design and construction, design phase PRA, plans for physical protection and emergency response arrangements, plan for arranging safeguards.

The construction of a nuclear facility shall not begin, as far as the structures affecting nuclear safety are concerned, before the Government has granted the Construction Licence required by the Nuclear Energy Act for the facility. Beginning the formwork and reinforcing work of the safety-classified concrete structures at the site is considered to be construction of this kind. If the manufacture of structures and components for the nuclear facility is begun before the Construction Licence is granted, the licence applicant shall apply for STUK's prior approval for commencing the work.

3. Operating License Phase

The Operating Licence for a nuclear facility shall be applied for from the Government. Application is submitted to the MEE, which asks statements from all stakeholders to prepare the license application for Government decision.

STUK issues a statement on the application for the Operating Licence. The statement is supplemented with a safety assessment. When preparing the safety assessment, STUK requests from the Ministry of the Interior a statement on the physical protection and emergency response arrangements. The preconditions for granting the Operating Licence are defined in Section 20 of the Nuclear Energy Act. In its safety assessment, STUK takes a stand on the fulfilment of the requirements laid down in the relevant legislation and YVL Guides regarding the issues STUK is responsible for.

When applying for the Operating Licence, the documents listed in Section 36 of the Nuclear Energy Decree, and other reports considered necessary by STUK shall be submitted to STUK for approval. STUK issues a statement about the Operating Licence application only after having approved essential parts of each of these documents by a separate decision. Documents to be submitted to STUK for review are among others Final Safety Analysis Report (FSAR), Safety Classification document, Operational Limits and Conditions, quality manual for operations, PRA, summary programme for in-service inspections, Report on arrangement of the necessary safeguards to prevent the proliferation of nuclear weapons,

administrative rules for operations, physical protection and emergency response arrangements, Environmental radiation monitoring programme.

Licensee is not allowed to load the nuclear fuel in to the reactor before the Operating License is granted. The Operating License is for fixed period. Typically Operating Licenses have been recently granted for 20 years. The first periods may be shorter. Anyhow, Periodic Safety Reviews are conducted typically every ten years.

4. Summary

Finland has a three step licensing process. All licenses in Finland are granted by the Government. Ministry of the Employment and the Economy performs all preparations for Government's decisions, asks statements from different stakeholders and arranges possibilities for public participation. STUK's role is to evaluate safety and give statements on safety in each licensing step.

The goal of the Decision in Principle is to decide whether using nuclear power is for the overall good of Finnish society. Government's decision has to be ratified by the Parliament to ensure political acceptance and commitment. The focus on the following steps of licensing is on the safety of the plant, starting from the safe design and construction in the Construction License phase and on the safe operations in the Operating license phase.