

# REGULATORY CONTROL OF NUCLEAR LIABILITY INSURANCES

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# Authorisation

By virtue of the below acts and regulations, the Radiation and Nuclear Safety Authority (STUK) issues detailed regulations that apply to the safe use of nuclear energy and to physical protection, emergency preparedness and safeguards:

- Section 55, paragraph 2, point 3 of the Nuclear Energy Act (990/1987)
- Section 29 of the Government Resolution (395/1991) on the Safety of Nuclear Power Plants
- Section 13 of the Government Resolution (396/1991) on the Physical Protection of Nuclear Power Plants
- Section 11 of the Government Resolution (397/1991) on the Emergency Preparedness of Nuclear Power Plants
- Section 8 of the Government Resolution (398/1991) on the Safety of a Disposal Facility for Reactor Waste
- Section 30 of the Government Resolution (478/1999) on the Safety of Disposal of Spent Nuclear Fuel.

# Rules for application

The publication of a YVL guide does not, as such, alter any previous decisions made by STUK. After having heard those concerned, STUK makes a separate decision on how a new or revised YVL guide applies to operating nuclear power plants, or to those under construction, and to licensees' operational activities. The guides apply as such to new nuclear facilities.

When considering how new safety requirements presented in YVL guides apply to operating nuclear power plants, or to those under construction, STUK takes into account section 27 of the Government Resolution (395/1991), which prescribes that *for further safety enhancement, action shall be taken which can be regarded as justified considering operating experience and the results of safety research as well as the advancement of science and technology.*

If deviations are made from the requirements of the YVL guides, STUK shall be presented with some other acceptable procedure or solution by which the safety level set forth in the YVL guides is achieved.

# 1 General

Nuclear liability means a liability arranged by special regulations for damage caused by nuclear incidents. The basis of nuclear liability regulation is international. This is because the harmful effects of a severe nuclear incident may extend to the territory of many states; on the other hand legal compensation issues shall be arranged for possible damage related to the transport of nuclear substances.

Nuclear liability is regulated in Finland by the Nuclear Liability Act (484/1972). According to internationally agreed principles the liability for damage lies with *the operator of a nuclear installation*. The operator is in Finland the licensee referred to in the Nuclear Energy Act (990/1987). Outside the territory of Finland the operator of a nuclear installation is the organisation, which is deemed to be the operator of the installation according to the legislation of the state where the installation is situated.

The liability of the operator has been limited to a prescribed maximum amount. On the other hand, the principles of nuclear liability ensure that a person entitled to compensation can receive the compensation for a suffered damage according to the nuclear liability regulations. Accordingly, the operator of a nuclear installation is required to take out *insurance* for a nuclear damage or to furnish other protective financial security (Sections 23–28 of the Nuclear Liability Act). In addition, security for compensation is contributed by the provisions of the Nuclear Liability Act on public liability (Sections 29–36).

The regulations of the Nuclear Energy Act on nuclear waste management limit the liability of the operator as regards time period. When nuclear wastes have been disposed and approved, the ownership and responsibility for wastes is transferred to the state (Section 34 of the Nuclear Energy Act). At the same time the responsibility of the licensee to take out insurance is finished as regards disposed nuclear wastes.

Administrative arrangements and the approval of insurances have to be taken into account in insurance arrangements required from licensees. Regulations on these issues are provided in the Nuclear Liability Act. Regulatory authorities are

the Council of State and the Ministry of Trade and Industry as well as Insurance Supervision Authority.

The Nuclear Energy Act includes provisions on regulatory control carried out by the Radiation and Nuclear Safety Authority (STUK). In this Guide, STUK's regulatory control procedures are presented as regards

- liability insurance related to a nuclear damage at a nuclear installation, as well as
- liability insurance related to a nuclear damage during the transport of nuclear substances.

The purpose of this Guide is to describe STUK's regulatory control duty as prescribed in the Nuclear Energy Act, as well as to specify procedures related to this duty. The nuclear liability system and functions of other authorities are covered to the extent which is necessary for specifying and positioning STUK's duty as a part of the whole regulatory control system for nuclear liability insurances.

## 2 International nuclear liability system

The objective of the international nuclear liability system is to provide liability for nuclear damage, security for compensation to those suffered damage and, as far as possible, a compensation process with uniform bases. The bases of the system are international agreements, on the basis of which contracting states have enacted their national nuclear liability legislation.

The essential international agreements have been specified in items j) – m) of Section 1 of the Nuclear Liability Act:

1. the Convention on Third Party Liability in the Field of Nuclear Energy, signed in Paris in the year 1960 (*Paris Convention*), as amended later on by additional and amendment protocols
2. the Convention Supplementary to the Paris Convention, signed in Brussels in the year 1963 (*Supplementary Convention*), as amended later on by additional and amendment protocols

3. the Convention on Civil Liability for Nuclear Damage, signed in Vienna in the year 1963 (*Vienna Convention*)
4. the Joint Protocol, signed in Vienna in the year 1988, concerning the Application of the Vienna and Paris Conventions.

The contracting states to the Paris Convention are mainly European states working within the OECD/NEA. The Vienna Convention has been prepared and administrated under the direction of the International Atomic Energy Agency (IAEA); originally the Convention was aimed to be global, covering all the states using nuclear energy. Although the Paris and Vienna Conventions are similar as regards their essential contents, they also include significant differences.

The aim of the Joint Protocol concerning the Application of the Vienna and Paris Conventions is to make consistent and to widen the geographical extent of the nuclear liability system as well as to make clear the relationship between the Conventions. The Joint Protocol includes provisions on the application of the nuclear liability system in the case when a damage occurs in the territory of such state which is a contracting party to the other convention than the home state of the nuclear installation which caused the nuclear incident.

Finland is a contracting party to the Paris Convention and the Joint Protocol. In this Guide Contracting State means

- any state party to the Paris Convention or
- any state party to the Vienna Convention and also to the Joint Protocol.

## **3 Administration and regulation of nuclear liability issues in finland**

### **3.1 Council of State and the Ministry of Trade and Industry**

If a licensee desires, instead of insurance, to arrange liability by furnishing an equally protective financial security, it is possible with preconditions prescribed in Section 28 of the Nuclear Liability Act. Financial security and related com-

pensation arrangements are subject to the approval of the Council of State.

The Council of State, or an authority appointed by the Council of State, may decide on the transfer of the liability for transport damage in the situations and with the preconditions enacted in paragraph 1 of Section 11 of the Nuclear Liability Act (transfer of liability to the carrier from the operator). The Council of State has appointed the Ministry of Trade and Industry as a competent authority by the Decision (511/1978).

Section 40 of the Nuclear Liability Act includes provisions on procedures by which it is ensured that liability is arranged in a proper way for a possible nuclear damage during the transport of nuclear substances. These provisions are consistent with the international nuclear liability system. The carrier has to be provided with a certificate issued by the insurer or the person who has guaranteed the financial security. The certificate shall include information on the operator of the nuclear installation and on the content of the insurance. The certificate shall be provided with a statement that the operator of the nuclear installation mentioned in the certificate is an operator referred to in the Paris Convention. In Finland the statement is given by the Ministry of Trade and Industry according to the provisions of Section 40 of the Nuclear Liability Act.

The certificate shall be consistent with the approved form. In Finland, this form has been approved by the Ministry of Trade and Industry based on paragraph 2 of Section 40 of the Nuclear Liability Act (Decision 512/1978 of the Ministry of Trade and Industry).

Provisions in Section 26 of the Nuclear Liability Act ensure that the liability of an insurer does not cease because of cancellation or any other reason without being noted by the authority. The insurer continues to be liable for two months from the date at which the Ministry of Trade and Industry has been notified in writing of the expiry date of the insurance policy.

### **3.2 Insurance Supervision Authority**

Insurance Supervision Authority is an authority specialised in controlling and inspecting insurances. This authority is working under the Ministry of Social Affairs and Health. According

to the provisions of Section 23 of the Nuclear Liability Act the insurances taken out by an operator of a nuclear installation in Finland are subject to the approval of Insurance Supervision Authority.

The Nuclear Liability Act includes provisions (Sections 23–28), which concern the content of nuclear liability insurances as regards insurance law and substance (content of insurance obligation, insurance policy form, the amount of insurance liability etc.). Insurance Supervision Authority is responsible for evaluating and inspecting the acceptability of these issues and insurance conditions and other techniques related to insurances.

### 3.3 Regulations on Radiation and Nuclear Safety Authority

According to the Nuclear Energy Act, Radiation and Nuclear Safety Authority is responsible for regulatory control of the safety of the use of nuclear energy. Section 55 of the Nuclear Energy Act includes a list of duties which belong to STUK as a safety authority. Paragraph 3 of Section 55 includes the following provision: “[ – – ] and of supervising that indemnification regarding liability in case of a nuclear damage has been arranged as prescribed”.

In addition, the Nuclear Energy Act includes two Sections which obligate STUK to verify that liability for a nuclear damage has been arranged according to the relevant regulations. These are Section 20 of the Nuclear Energy Act, item 1 of paragraph 2 (preconditions for starting the operation of a nuclear facility) and Section 21 of Nuclear Energy Act, paragraph 2 (preconditions for starting the operation of other use of nuclear energy).

Detailed regulations on licensing and application procedures for activities under the term “use of nuclear energy” are given in the Nuclear Energy Decree (161/1988). As regards the duties of STUK Chapter 8 of the Nuclear Energy Decree (transport licences) is important. According to this Chapter, Radiation and Nuclear Safety Authority grants licences for the transport of nuclear substances and nuclear wastes in Finland or through the territory of Finland. An application for a licence shall be provided, among other

issues, with a declaration on the arrangements for liability for a nuclear damage (Section 58 of the Nuclear Energy Decree).

### 3.4 Regulatory control mandate of Radiation and Nuclear Safety Authority

STUK’s duty is to control that liability for a nuclear damage has been arranged according to the relevant regulations. As regards the control of nuclear facilities, STUK has to verify that

- the licensee has got a valid, properly approved insurance for a nuclear damage at the nuclear facility.

If arrangements for financial security are established, STUK’s responsibility is to verify that the Council of State has relieved the licensee from the obligation to take out insurance and that the Council of State has approved the arrangements of the licensee for financial security and for taking care of the compensation system according to the provisions of Section 28 of the Nuclear Liability Act. Financial security as a substitutive arrangement for a nuclear liability insurance has in practice not been used, and therefore it is not dealt with hereafter.

As regards transport control, STUK’s duty is to verify that

- when a shipment is imported from a contracting state, the certificate on insurance/financial security for a nuclear damage during transport, referred to in Section 40 of the Nuclear Liability Act and given by the operator of the state of origin, is appropriate
- when a shipment is imported from other than a contracting state, the Finnish receiving operator has taken out insurance for a nuclear damage during transport in the territory of Finland, proven with a certificate referred to in Section 40 of the Nuclear Liability Act
- if a Finnish operator sends nuclear substance to a receiver staying abroad or in Finland, the sender has taken out insurance for a nuclear damage during transport, proven with a certificate referred to in Section 40 of the Nuclear Liability Act
- if nuclear substances are transported through the territory of Finland, the existence of insurance is proven as described later on in Chapter 4.3.4.

## 4 Regulatory control procedures

### 4.1 Liability insurances for nuclear installations

A licensee is responsible to take care that a copy of a valid insurance policy and its annexes are submitted to STUK for information according to Guide YVL 1.2 before the beginning of the term of insurance.

In connection with insurance documents such documents shall be submitted which prove that Insurance Supervision Authority has approved the insurance based on Section 23 of the Nuclear Liability Act. The approval shall cover the whole insurance; both the insurance policy and its annexes shall be approved by Insurance Supervision Authority.

When the term of a properly approved insurance is continued (without changing the form, content and conditions of the insurance), no separate approval is needed for the so revised insurance. It is adequate that the revised insurance policy is submitted with a copy of the previous approval document of Insurance Supervision Authority.

Documents showing the approval of Insurance Supervision Authority shall be submitted to STUK always when insurance has been changed, either because of changes in the provisions of the Nuclear Liability Act or requirements issued based on it, or because of other reasons.

STUK informs the licensee in writing that it has received the submitted insurance documents and documents showing the approval of insurance.

### 4.2 FiR research reactor

The state has no obligation to take out insurance under the Nuclear Liability Act (Section 28 of the Nuclear Liability Act, paragraph 1). Thus the requirements above concerning nuclear installations do not apply to FiR research reactor, which is under the control of Technical Research Centre of Finland (VTT).

### 4.3 Liability insurances for transport of nuclear substances

#### 4.3.1 Shipment into Finland from a contracting state

The licensing process for transport is prescribed in the Nuclear Energy Decree. In connection with the licensing process, a licensee shall submit a certificate of the insurer of the state of origin, referred to in Section 40 of the Nuclear Liability Act. The licensee shall ensure for his part that the certificate is originally reliable and proper as regards the content.

If the certificate is submitted separately from other licence application documents, it can be submitted for information according to Guide YVL 1.2. STUK verifies that the form of the certificate is consistent with the regulations, that the certificate includes the information required by the regulations, and that it includes a statement of the competent authority of the state of origin on the status of the operator liable for transport damage.

#### 4.3.2 Shipment into Finland from a non-contracting state

A licensee shall take out insurance for transport damage in the territory of Finland. The insurance shall be approved by Insurance Supervision Authority. The insurance may be separate from other insurances as prescribed in paragraph 3 of Section 23 of the Nuclear Liability Act. In these cases insurance documents and approval documents are submitted to STUK at latest in connection with the licensing process of transport.

If a licensee arranges his liability for nuclear damage during the transport of nuclear substance so that the transport insurance

- is a part of a wider nuclear liability insurance entirety covering also other activities, or
- covers, for the period set in the insurance policy, all shipments of nuclear substances for which the licensee is obligated to take out insurance,
- the insurance documents and documents showing the approval of Insurance Supervision Authority are submitted to STUK without de-

lay when the insurance policy has been done and always when the insurance has been changed.

If the term of a properly approved insurance is continued as such (a new term of insurance without changing the form, content or conditions of the insurance), a separate approval for the thus revised insurance is not needed. It is adequate when the new insurance policy with a copy of its previous approval is submitted.

In connection with the licensing process of each single shipment, a certificate of the insurer consistent with the regulated form shall be submitted to STUK regardless of the form and term of a transport insurance. The certificate shall include the statement of the Ministry of Trade and Industry according to Section 40 of the Nuclear Liability Act.

#### 4.3.3 Shipment from a Finnish licensee

The procedures described in the item 4.3.2 are applied when a Finnish licensee (the operator of an installation) sends nuclear substances for transport abroad or to a receiver in Finland.

#### 4.3.4 Transit through Finland

As regards provisions in Sections 7–11 of the Nuclear Liability Act, basic situations of nuclear substance transfers through the territory of Finland are:

1. either the sender of nuclear substance or its receiver, or both, are operators in a contracting state, and
2. neither is an operator in a contracting state.

A licence according to the regulations of the Nuclear Energy Act and Decree is needed in both cases for transit through Finland. Procedures for applying and handling of the licence are in detail provided in Chapters 7b and 8 of the Nuclear Energy Decree. The application is submitted to STUK. If the licence granting organisation is the

Ministry of Trade and Industry, STUK transfers the application to the Ministry with a statement.

In cases referred to in item 1, the application documents for a licence shall include a certificate of the insurer referred to in Section 40 of the Nuclear Liability Act. The certificate shall include a statement on the status of the operator given by the competent authority of the home state of the operator liable for transport damage. If the certificate is submitted separately from the real licence application, the covering letter shall be signed by a responsible person authorised by the licence applicant.

In cases referred to in item 2, a transport licence holder is regarded equal with an operator according to paragraph 3 of Section 8 of the Nuclear Liability Act. As regards this licence holder, those provisions of the Nuclear Liability Act are applied which concern an operator of a nuclear installation in Finland, as provided in paragraph 3. An applicant for a transport licence through Finland shall provide STUK with documents which show that he has a valid insurance for transport damage approved by Insurance Supervision Authority based on Section 23 of the Nuclear Liability Act.

## 5 References

1. Report of Nuclear Liability Committee. Committee report 1969:A 17.
2. Bill of the Council of State to the Parliament on the approval of some provisions included in the Convention on Third Party Liability in the Field of Nuclear Energy, signed in Paris, and the Convention Supplementary to the Paris Convention, signed in Brussels, as well as on the Nuclear Liability Act. Parliamentary Session Number 41, 1972.
3. Ståhlberg Pauli, Nuclear Liability. A study in the area of law of liability with special emphasis on damage caused by a nuclear power plant accident. Vammala 1993 (in Finnish).