STUK

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REPORTING NUCLEAR FACILITY OPERATION TO THE RADIATION AND NUCLEAR SAFETY AUTHORITY

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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 of the Nuclear Energy Act (990/1987)
- Section 29 of the Government Decision (395/1991) on the Safety of Nuclear Power Plants
- Section 13 of the Government Decision (396/1991) on the Physical Protection of Nuclear Power Plants
- Section 11 of the Government Decision (397/1991) on the Emergency Preparedness of Nuclear Power Plants
- Section 8 of the Government Decision (398/1991) on the Safety of a Disposal Facility for Reactor Waste
- Section 30 of the Government Decision (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 Decision (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

According to Section 27 of the Government Decision (395/1991), the results of operating experience and safety research shall be systematically followed and assessed. In order to effectively utilise operating experience, the licensee shall analyse events related to the operation of a nuclear facility. STUK evaluates the safety significance of operational events and the need for changes concerning the operation or plant as well as communication outside of STUK. With the help of reports and other records, the operation of the plant, operational events and implemented plant modifications can be assessed and analysed also afterwards.

In this Guide, notifications and reports required by STUK on operating activities of nuclear facilities and also requirements on delivering these reports to STUK are presented. The Guide does not cover reports on nuclear material safeguards, addressed in Guide YVL 6.10. STUK gives specific instructions on the reporting of events related to physical protection. Reporting on workers' individual radiation doses is presented in Guide YVL 7.10, and reporting on the environmental radiation monitoring in Guide YVL 7.8. Guide YVL 1.11 deals with the reporting on operating experience feedback.

According to the internationally agreed principles, STUK reports on safety significant issues to the International Atomic Energy Agency (IAEA) and to the OECD countries' Nuclear Energy Agency (NEA) within the IRS System (Incident Reporting System) as well as on severity classifications to the IAEA within the INES rating system (International Nuclear Event Scale). Guide YVL 1.12 covers the INES rating of events.

Requirements concerning the emergency response arrangements and plans are presented in the Government Decision (397/1991) and in Guide YVL 7.4. According to Section 8 of the Decision (397/1991), the local emergency centre and the STUK shall be notified of an emergency without delay.

2 Reporting requirements

In this Guide reports concerning the operation of nuclear facilities are divided into event specific and regular reports. In addition to the actual reports, the licensee shall deliver to STUK also other information related to the operation of plant units (e.g. information needed for the calculation of indicators), if required. STUK uses this information in the safety control of the use of nuclear energy.

An event specific report (special report, disturbance report or other incident report) shall be compiled if the requirements on reporting presented in the Chapter 3 are fulfilled. One single combined report may be compiled if several reporting criteria presented in the Chapters 3.2–3.4 are fulfilled.

In regular reports information is presented in a standard form, so that an overall view can be formed of the operation of the plant and of the activities of the licensee to ensure safety. The requirements for the contents and submission of the regular reports are presented in the Chapter 4 of this Guide.

The licensee shall have documentation defining procedures, responsibilities and obligations concerning the compilation, review and approval of each report. According to the principles presented in Guide YVL 1.11, the licensee shall also have documented procedures for actions related to the management of an incident. These actions begin from the observation of the event and end to the evaluation of success of corrective and preventive actions. In addition, the procedures shall cover the documentation and follow-up of the management phases of the event.

STUK sets no detailed requirements for the form of the reports. The reports may be more extensive than required in this Guide. Attention shall be paid to clarity of style, and graphic displays shall be used in an appropriate way.

If a report submitted to STUK is later found erroneous, incomplete or if changes are needed to the submitted information, e.g. to the corrective

or preventive actions, the necessary corrections and additions to the report shall be submitted without delay. Requirements of Guide YVL 1.2 shall be taken into account when compiling and submitting the reports.

3 Event reporting

3.1 Informing of reportable events

In emergencies (emergency standby, site emergency and general emergency) the licensee shall alert STUK according to the emergency plan of the nuclear facility. Emergency response arrangements and plans for nuclear power plants are dealt with in the Government Decision (397/1991) and in Guide YVL 7.4. Also other events mentioned in chapters 3.2 and 3.3 shall be immediately notified to STUK via telephone and included in the next daily report. Also such event that may be suspected to create public interest shall be notified to STUK respectively. When notifying of nuclear facility plant events, STUK's on duty telephone number shall be primarily used; the number is available 24 hours per day. On duty telephone number, spare numbers and other more detailed instructions are included in separate decisions submitted by STUK to licensees.

For the national and international communication activities, STUK needs a description of the event and an estimate of the INES level according to the International Nuclear Event Scale. The estimate of the INES level and the description of the event shall be submitted on events defined in Guide YVL 1.12.

3.2 Special reports

3.2.1 Special situations

Special situations are such incidents, defects, deficiencies and problems (hereafter referred to as incidents) that have based on deterministic or probabilistic assessments real significance to the nuclear safety of the plant, to the safety of the plant personnel or to radiation safety in the plant's environment. A special report shall be compiled of any special situations.

The following list includes examples of incidents STUK considers as special situations. A special report shall always be compiled on events in groups A–D. Special reporting shall be considered for events in groups E–H on a case by case basis. In this case, a report form described in chapters 3.3 or 3.4 shall be used if it can be demonstrated by means of probabilistic analyses (PSA) or other methods that the event has no essential significance to the safety of the facility or the radiation safety of the environment. The application of probabilistic methods to the evaluation of risk significance of events is dealt with in Guide YVL 2.8.

A. Emergencies

a) An emergency standby, site emergency or general emergency has been declared at a nuclear facility (Guide YVL7.4).

B. Events related to radiation safety

b) Uncontrolled radioactive leakage inside the plant so that air or surface contamination or radiation dose rate in the premises in question has essentially risen.
c) Some individual's radiation dose may have exceeded the dose limit (Guide YVL 7.10).
d) Radioactive releases into the environment have exceeded the limit requiring corrective measures (Guide YVL 7.1).

C. Special situations related to the Technical Specifications

e) The plant has been operated in a way violating the Technical Specifications. For example the time for restriction of the use has been exceeded, a parameter has not been restored to the allowed level within a set time limit, or such a limit has been exceeded, the function of which is to ensure the integrity of the fuel cladding or a pressure retaining component of the primary circuit.

D. Events related to safety functions, and defects and damages of systems, structures and components.

f) An automatic function of a protection system has not been triggered although a parameter has exceeded the protection limit set in the Technical Specifications, or a protection function has not been completed as planned.
g) An increase in the radioactivity of the reactor coolant indicating a failure of several fuel rods or a significant damage of one fuel rod,

an exceptional leakage or degradation of the primary circuit or a degradation of the containment so that it no longer fulfils requirements set for tightness or strength has been detected.

h) An erroneous or significant defective functioning of a safety valve or pressure relief valve of the primary or secondary circuit has been detected.

i) The emergency core cooling system or isolation of the containment has been actuated in a required situation. The isolation of some process systems occurring normally after a reactor scram is not considered as such isolation of the containment.

E. Incidents imminent to safety functions

j) A defect, operational error or deficiency, erroneous process, automation or electric connection, erroneous instruction or other reason which might prevent the fulfilment of a safety function has been detected.

k) A common cause failure, recurrent defects or malfunctions in an important component type, structure or function related to some safety function has been detected.

l) A liquid or gas leakage has occurred at the plant and the circumstances caused by this leakage are endangering or may endanger the fulfilment of a safety function.

F. Weaknesses in safety management or assessment

m) Such a problem or deficiency in management or organisation culture has been detected, which is significant and possibly affecting safety.

n) An error in an accident analysis or in the analysis method or other erroneous ground for the Technical Specifications has been detected. In addition, there is a reason to suspect that the use of the plant in some situations is not as safe as previously assessed or presented in the design bases.

o) A deviation of more than 1 percent from the estimated value of the reactor multiplication factor in a stationary state, or the possibility of an unplanned criticality inside or outside the reactor has been detected.

G. External incidents

p) An exceptional natural phenomenon or some other external threat to the plant has caused a situation endangering safety.

q) A fire, an explosion or a chemical damage has occurred at the plant site.

r) Off-site power has been lost and as a result it has been necessary to supply the plant's AC power by on-site electrical power supply units.

H. Other incidents

s) An automatic protection function related to safety of the plant has been erroneously triggered.

t) A fuel bundle has or may have sustained damage during handling or may have been at risk as a result of another incident.

u) A threat to the physical protection arrangements of the plant, or an attempt to cause intentional damage to the plant, or a significant defect in the physical protection arrangements has been detected. In such a case the regulations concerning secrecy stated in the legislation (Section 78 of the Nuclear Energy Act and Section 24 of the Act on the Openness of Government Activities) have to be taken into account.

If needed, STUK will provide guidance on whether some other incident fulfils the criteria set for an event on which a special report is required.

3.2.2 Requirements for a special report

A special report shall be submitted to STUK for approval within a month from an incident. However, a short description and a preliminary safety assessment shall be submitted to STUK as soon as possible, for example as a first report according to Chapter 3.4.

The special report shall include, in addition to a short summary concentrating on the event's safety importance, the following detailed data, as applicable:

a) Incident description
- operating condition of the plant at the beginning of the incident
  - operating state and power level of the plant

  - status and functioning of systems and components related to the incident
  - on-going operational and maintenance work related to the incident
  - alarms or other deviations from normal operation preceding the incident.
- detection of the incident
- chronological progress of the incident
  - initiating fault or malfunction of the incident
  - automatic control and protection functions
  - activities of the operators and other staff to ensure safety
  - faults and malfunctions influencing the progress of events.
- consequences of the incident (e.g. changes in the operational state of the plant, personal injuries, radiation doses, releases of radioactive materials into environment)
- diagrams describing the behaviour of the process (e.g. pressure, temperature, flow)
  - starting situation
  - changes in parameters
  - flow charts, electrical drawings, logic charts etc. of systems related to the incident.

b) Safety assessment
- overview of the safety significance of the incident
- plant unit specific probabilistic safety analysis (PSA) shall be used to help to assess the safety significance of the incident, if the safety significance cannot be demonstrated to be low by other means, or if PSA can not be proven to be inapplicable for the assessment of the safety significance
- INES level of the incident
- influence of the incident on ensuring the most important safety functions
  - reactor shutdown
  - reactor cooling
  - removal of decay heat from the reactor and spent fuel
  - isolation of radioactive substances from the environment.
- potential consequences of the incident in some other operational conditions
- references to similar incidents which have occurred earlier at the same nuclear facility and also an explanation on reasons leading to recurrence of the incident and inadequacy of corrective actions.

c) Causes of the incident
- direct causes
- root causes.

d) Corrective actions and measures to avoid recurrence of a similar incident
- studies and investigations made due to the incident
- structural improvements in the plant (both immediate and later implemented improvements), with the schedules and duties
- improvements e.g. in the Technical Specifications, procedures, instructions and training with the schedules and duties.

The need to conduct a root cause analysis from a special situation shall be considered. Especially if the incidents are recurrent, a root cause analysis shall be made. If a root cause analysis is not made, explanations shall be presented in the special report. The carrying out of a root cause analysis is dealt with in Guide YVL 1.11. The report on the root cause analysis shall be submitted to STUK for information within six months from the incident.

3.3 Disturbance report

A disturbance report shall be compiled of significant disturbances in the operation of a plant unit. Such disturbances are e.g. a reactor scram, turbine trip and other operational disturbances which have lead to a forced reduction of more than 5% to the reactor or gross electric power, and also other significant disturbances, defects and changes in the functioning or operating conditions of the plant unit or its systems. The report shall be submitted to STUK for information within a month from the incident. The report shall include, as far as applicable, information required to be included in a special report according to Chapter 3.2.2. The name of the report shall describe the occurred disturbance as clearly as possible. A disturbance report shall not be compiled from planned reactor scram tests at low power.

3.4 Other incident reports

Such events which do not require the preparation of a special or disturbance report may still be significant e.g. for the functioning of quality or environmental management systems, the recognition of safety deficiencies or training needs, industrial safety or the operability of the plant. Also close call -situations may be such events. An advanced quality management system requires the handling and internal reporting of these kinds of events. The compiled report on the event shall be submitted to STUK for information, if the event has or may have significance to nuclear or radiation safety or STUK's communication activities. The report shall present essential information regarding the event, and it shall be a part of a report series of a licensee.

This report can be used for the first reporting and presentation of the INES level, whereupon the report shall be submitted to STUK as soon as possible. Procedures concerning the notification of the INES level are presented in Guide YVL 1.12.

4 Regular reporting

4.1 Daily report

The daily report shall be submitted to STUK for information every day so that the report is available for STUK by 10.00 a.m. on the working day following the reporting period. The report can be submitted to STUK e.g. via e-mail.

The report shall include the following, as applicable:

a) Average power level of the plant unit during 24 hours (the reactor power in percentages of the nominal power with accuracy of one decimal, gross electric power), operational state and changes therein as well as changes in power bigger than 5% and their causes or other significant events affecting operation and repair outages. Also planned significant power reductions and outages shall be presented.

b) Inoperability of structures, systems and components due to a failure, preventive maintenance, periodic test or other reason, to which the Technical Specifications set requirements concerning availability. The daily report must give at least the immediate reason why a system, component or structure has been found to be inoperable. A defect detected in periodic testing (e.g. a jammed valve, inoperability of a diesel generator or pump) shall be reported in the daily report also when in the first test a defect was detected but in an immediate retest the component operated as planned.

In addition, the following shall be presented:

- time and means of detecting the defect
- sub-systems or other systems performing the same safety function, declared as inoperable as a result of the defect
- number of the failure report/work permit
- corrective and preventive measures conducted
- time of the beginning of unavailability
- time of the ending of unavailability.

If a component has not been repaired by the end of the reporting day, the information concerning the repair shall be presented in the next daily report.

c) Deviations concerning administrative requirements and set limit values of the Technical Specifications and also issues mentioned in item b) regarding the reasons for the deviations, observation method, duration and repair.

d) Breaking of the pressure equipment or its auxiliary devices during operation, if the pressure equipment is broken or has otherwise been detected as deviating from the construction plan. Such cases may include e.g. leakages through a construction material or welded seams, breaking of supports, defects requiring repair welding or incidents weakening the safe operation of the structure. If erroneous operation of the pressure equipment is detected (e.g. operational limits have been exceeded) or the safety valve of the pressure equipment has failed to operate as planned, it shall be mentioned also in the daily report.

e) Releases of radioactive materials exceeding the reporting threshold. The reporting threshold is 5 × the reference release rate, average over a week at most (YVL 7.1).

f) First observations of a fuel leakage.

g) Exceptional events, observations and matters requiring the preparation of one of the reports mentioned in Chapter 3 and also a notification of the preparation of the report in question.

During refuelling and other corresponding extensive outages the daily report shall include also the following:

- status of the overall schedule of the outage
- status of the reactor loading
- changes taking place in the operational state of redundant subsystems performing safety functions
- observations of significant defects that cause extra work and essential changes in the overall schedule
- events significant to radiation protection
- severe injuries and other incidents significant to industrial safety
- disturbances in the functioning of systems significant to safety during an outage.

Information related to events and observations shall be presented as far as known during the preparation of the report. Among other things, a short description of the event can be enclosed to the daily report. When necessary, the information shall be corrected or completed in later daily reports.

4.2 Quarterly report

The quarterly report shall be submitted to STUK for information by the 15th day of the month following the reporting period. Corresponding information can also be submitted monthly.

The report shall include the following information:

a) Short descriptions of the most significant events and matters of the organisational units responsible for operation, maintenance, technical support and quality management.

b) Plant operational information
- production diagram of the electric power (gross or net power)
- following information of the reporting months, the quarter in question, the current year and since the commissioning:
  – produced gross electric power
  – produced net electric power
  – load factor
  – availability factor
  – loss of production, caused by device malfunctions.

c) Summary of outages and power reductions bigger than 5%
- changes in the reactor and gross electric power and dates of the changes
- cause(s) of the event
- most significant activities and operational measures during the event.

d) Reactor operation and the use of fuel
- burn-up data of the fuel e.g. the average burn-up of the whole core, increase of burn-up during the operation cycle and the highest fuel bundle specific burn-up
- smallest monthly thermal margins of the fuel such as local dry-out or DNB margins, and greatest local linear heat ratings
- estimate of the amount of leaking fuel bundles and the extent of leaks
- causes of possible breaks of the Technical Specifications limits or other exceptional events.

e) Inoperability (deficiency, preventive maintenance, periodic testing or other reason and unavailability time) of the systems and components subject to the Technical Specifications during the reporting period and a cumulative summary of the unavailability times of components subject to the Technical Specifications during the last 12 months. When defining the unavailability time of back-up systems, also the actual unavailability time of the defect shall be evaluated (hidden defects).

f) Summary of decided modifications to safety classified systems and those subject to the Technical Specifications. The list shall present
- short description of the modification and it's possible connection to a broader modification entity or project
- identification number of the modification (e.g. work request number)
- preliminary schedule for implementation
- list of documents to STUK possibly related to the modification, being prepared or ready at the time of reporting.

g) Summary of implemented modifications to the safety classified systems, functions, structures and components and those subject to the Technical Specifications. The following shall be presented of changes:
- date of completing the modification
- cause of modification
- measures taken
- safety significance of modification
- identification number of the modification.

h) Graphic display of the specific activities of the most significant radionuclides measured from reactor coolant and water of the secondary circuit and fuel pools, and also of the most significant chemical properties and impurity quantities measured. In addition to the graphic display, a verbal explanation on the level of specific activities, status of water chemistry and reasons for abnormal values shall be presented. In the case of a significant fuel leakage at the plant, also the measured activity concentrations of uranium and transuranium elements in the primary circuit shall be presented.

4.3 Annual report

The annual report on the operation of a nuclear facility during the previous calendar year shall be submitted to the STUK for information by the 1st day of March of the following year. The annual report shall also include the information in a graphic form as far as such a presentation is applicable. In addition, the report shall present an explanation on the reasons of significant changes of the graphic values or smaller changes with a long-term duration. When necessary, information to STUK's database shall be submitted to STUK in a separately agreed electric form.

The annual report shall present an overall safety assessment concerning the reported operating year. The assessment shall include initiated or implemented measures to ensure or enhance safety during the reporting year (Section 27 of the Government Decision 395/1991). Such measures are, among other things, significant safety studies and analyses conducted and their essential results and further measures. Also plans and projects significant to safety and lifetime management, operating experience feedback and quality management activities are considered as such measures. The assessment shall also present identified issues requiring development for a long-term period.

In addition, the following shall be presented enclosed to the annual report:

a) Operating data of the plant
- graphic display of thermal power production of the reactor during the reporting year
- graphic display of electric power production (gross or net power) during the reporting year
- following annual information from the reporting year and at least from a ten year period:
  - produced thermal energy
  - produced gross electric power
  - produced net electric power
  - load factor
  - availability factor
  - duration of annual maintenance outages.
- plant safety indicators at least from a ten year time span, especially
  - unplanned energy unavailability factor
  - availability of safety systems
  - industrial safety index
  - chemistry index which describes the efficiency of the maintenance of hydro chemical circumstances in the secondary circuit of the pressurised water reactor units and the reactor circuit of the boiling water reactor units in terms of impurities and corrosion products. The calculating formula of the index, and the changes to it, shall be submitted to STUK for information.

b) Events with safety significance
- summary of special situations of the year (Chapter 3.2.1)
- summary of plant fire brigade alarms
- summary of recurrent events and common cause failures during the reporting period
- graphic display for at least ten year period from annual
  – number of specially reported incidents
  – number of reactor scrams
  – number of disturbances (disturbances according to the Chapter 3.3, excluding reactor scrams).

c) Integrity of the primary circuit
- pressure and temperature transients directed at different parts of the primary circuit and other fatigue loaded pressure equipment
  – number of various type of pressure and temperature transients used as the design basis of the parts of the primary circuit or other fatigue loaded equipment, and also the changes of temperature or pressure larger or faster than those used for design.
- graphic display of total monthly quantities of identified and unidentified leakages during the power operation
- summary of the results and most significant observations of conducted piping inspections.

d) Reactor operation and the use of fuel
- yearly trend of the parameters describing thermal margins, power distribution and control of the reactivity registered during the monitoring of the reactor operation (diagrams)
- observed or suspected fuel failures and the number of leaking fuel bundles removed from the reactor during the year
- number of fuel bundles loaded in the reactor specified as follows: manufacturer, type, average enrichment
- average and greatest burn-up of fuel bundles removed from the reactor and the number of bundles classified as follows: manufacturer, type, operating time in the reactor.

e) Water chemistry
- most important chemical properties and amounts of impurities and radionuclides measured from the reactor coolant and water in the secondary circuit and fuel pools (graphic display).

f) Storage and solidifying of liquid wastes
- summary on the amounts (graphic display) and total activities of stored and disposed radioactive wastes as well as the most significant radionuclides in wastes.

g) Storage, disposal and transport of solid wastes
- summary on the amounts (graphic display) and total activities of stored and disposed radioactive wastes and the most significant radionuclides in wastes
- the amount and total activity of radioactive wastes transported from the plant (including exempted wastes from the regulatory control) as well as the most significant radionuclides; the storage site and method.

  Detailed information on disposed waste packages shall be separately submitted in the manner described in Guide YVL 8.1.

h) Releases
- summary of radioactive releases and the calculated radiation doses in the environment caused by them
- graphic display of the calculated radiation doses in the environment caused by the releases since the commissioning.

i) Occupational radiation doses
- graphic display of the annual collective radiation doses of workers at each plant unit
- distribution of different size radiation doses of workers' individual doses
- collective radiation dose of different groups of workers, number of people exposed and the highest individual radiation dose; in addition, distribution of the dose between the staff of the plant and guest workers

- work resulting in exposure over 0.02 manSv; work is divided into periodic work or repeated work (e.g. reloading, steam generator maintenance) and into single unusual work; name or object of the work, collective radiation dose, highest individual dose, number of workers and duration of work are presented
- recording of possible internal doses (see Guide YVL 7.10 for details).

j) List of all modification work conducted on safety classified systems and systems subject to the Technical Specifications and also of system modifications of EYT systems. In addition, a graphic display of the number of the modifications of both safety classified and EYT systems, at least for the latest ten year time span.

k) Organisation of the licensee and the plant
- changes in the organisation and permanent staff during the reporting period
- annual information in a graphic form on the number of staff in the organisation units responsible for the operation, maintenance and technical support functions, at least for the latest ten year time span.

l) Changes made in the general part of the Final Safety Analysis Report concerning the site information (e.g. local population, traffic arrangements, environmentally hazardous industry, changes concerning the use of coolant water).

4.4 Outage report

The scope of the outage report depends on the outage. The report on unexpected outages shall be submitted to STUK for information, as applicable, within a month and on annual maintenance outages and comparable outages planned in advance within three months from the end of the outage. The report shall include
- an overview of the outage and schedules
- information concerning refuelling
- list of maintenance and modification works with safety or other significance made during the outage
- technical and administrative realisation of the outage in comparison with plans
- significant deficiencies and defects detected during periodic tests and inspections
- realisation of plans and dose estimates concerning radiation protection
- events and observations significant to the development of the quality management system (including significant close call –situations) as well as measures taken thereupon.

Regulatory control activities during outages are presented in Guide YVL 1.13.

4.5 Reports on environmental radiation safety

The report concerning the results of the previous calendar year shall be submitted to STUK for information by the 15th day of April of the following year. The report shall include, among other things, a summary of the operation of the plant unit from the viewpoint of environmental radiation safety: release information, dispersion information, results of dose calculations and results of radiation monitoring based on environmental measurements as well as information on nuclear waste exempted from the regulatory control.

In addition, information on releases, dispersion conditions and monitoring of the external dose rate in the environment shall be submitted to STUK for information within a month from the end of each annual quarter and the results of radiation monitoring based on environmental samples within two and half months from the end of each annual quarter.

Reporting on environmental radiation safety is dealt in detail with in Guide YVL 7.8.

4.6 Reports on individual radiation doses

The licensee shall report monthly the individual external radiation doses of workers to STUK for inclusion in STUK's central Dose Register. Internal radiation doses are reported within a month from the observation of internal radioactivity.

Reporting on the individual radiation doses is dealt with in detail in Guide YVL 7.10.

4.7 Report on operating experience feedback

The licensee shall submit a summary report to STUK for information by the 1st day of March of the following year on the activities it has taken during the previous calendar year to utilise the operating experience gained at own and other nuclear facilities. The report shall include

- descriptions of significant operational events dealt with and their handling phases during the reporting period
- recommendations and decisions based on event reports, root cause analyses or other studies with schedules and responsible units
- information of implemented and not yet implemented corrective and preventive measures with schedules and responsible units
- information on events completely dealt with and on events taken under consideration.

A list of events under consideration and a brief description of their handling status shall be attached to the report. Operating experience feedback is dealt with in Guide YVL 1.11.