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Organisation de Coopération et de Développement Economiques
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NUCLEAR ENERGY AGENCY
COMMITTEE ON NUCLEAR REGULATORY ACTIVITIES

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INTERNATIONAL PRACTICES WITH RESPECT TO LICENCE PERIODS/TERMS FOR NUCLEAR FACILITIES IN NEA MEMBER COUNTRIES

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

Pursuant to Article 1 of the Convention signed in Paris on 14th December 1960, and which came into force on 30th September 1961, the Organisation for Economic Co-operation and Development (OECD) shall promote policies designed:

- to achieve the highest sustainable economic growth and employment and a rising standard of living in Member countries, while maintaining financial stability, and thus to contribute to the development of the world economy;
- to contribute to sound economic expansion in Member as well as non-member countries in the process of economic development; and
- to contribute to the expansion of world trade on a multilateral, non-discriminatory basis in accordance with international obligations.

The original Member countries of the OECD are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The following countries became Members subsequently through accession at the dates indicated hereafter: Japan (28th April 1964), Finland (28th January 1969), Australia (7th June 1971), New Zealand (29th May 1973), Mexico (18th May 1994), the Czech Republic (21st December 1995), Hungary (7th May 1996), Poland (22nd November 1996), Korea (12th December 1996) and the Slovak Republic (14 December 2000). The Commission of the European Communities takes part in the work of the OECD (Article 13 of the OECD Convention).

NUCLEAR ENERGY AGENCY

The OECD Nuclear Energy Agency (NEA) was established on 1st February 1958 under the name of the OEEC European Nuclear Energy Agency. It received its present designation on 20th April 1972, when Japan became its first non-European full Member. NEA membership today consists of 28 OECD Member countries: Australia, Austria, Belgium, Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Luxembourg, Mexico, the Netherlands, Norway, Portugal, Republic of Korea, Slovak Republic, Spain, Sweden, Switzerland, Turkey, the United Kingdom and the United States. The Commission of the European Communities also takes part in the work of the Agency.

The mission of the NEA is:

- to assist its Member countries in maintaining and further developing, through international co-operation, the scientific, technological and legal bases required for a safe, environmentally friendly and economical use of nuclear energy for peaceful purposes, as well as
- to provide authoritative assessments and to forge common understandings on key issues, as input to government decisions on nuclear energy policy and to broader OECD policy analyses in areas such as energy and sustainable development.

Specific areas of competence of the NEA include safety and regulation of nuclear activities, radioactive waste management, radiological protection, nuclear science, economic and technical analyses of the nuclear fuel cycle, nuclear law and liability, and public information. The NEA Data Bank provides nuclear data and computer program services for participating countries.

In these and related tasks, the NEA works in close collaboration with the International Atomic Energy Agency in Vienna, with which it has a Co-operation Agreement, as well as with other international organisations in the nuclear field.

COMMITTEE ON NUCLEAR REGULATORY ACTIVITIES

The Committee on Nuclear Regulatory Activities (CNRA) of the OECD Nuclear Energy Agency (NEA) is an international committee made up primarily of senior nuclear regulators. It was set up in 1989 as a forum for the exchange of information and experience among regulatory organisations and for the review of developments which could affect regulatory requirements.

The Committee is responsible for the programme of the NEA, concerning the regulation, licensing and inspection of nuclear installations. The Committee reviews developments which could affect regulatory requirements with the objective of providing members with an understanding of the motivation for new regulatory requirements under consideration and an opportunity to offer suggestions that might improve them or avoid disparities among Member Countries. In particular, the Committee reviews current practices and operating experience.

The Committee focuses primarily on power reactors and other nuclear installations currently being built and operated. It also may consider the regulatory implications of new designs of power reactors and other types of nuclear installations.

In implementing its programme, CNRA establishes co-operative mechanisms with NEA's Committee on the Safety of Nuclear Installations (CSNI), responsible for co-ordinating the activities of the Agency concerning the technical aspects of design, construction and operation of nuclear installations insofar as they affect the safety of such installations. It also co-operates with NEA's Committee on Radiation Protection and Public Health (CRPPH) and NEA's Radioactive Waste Management Committee (RWMC) on matters of common interest.

FOREWORD

The attached tables 1,2 are a comparison of international practises with respect to license periods for nuclear-related licensed activities. These tables were prepared by the Canadian Nuclear Safety Commission (CNSC) as background information to assist in their rationalisation of licensing periods.

The CNSC was unique in the nuclear world in that they had for many years a standard 2-year licensing period for almost all their license holders. They are now in the process of recommending changes to their Commissioners to adopt a more flexible, risk informed licensing regime. Their recommendations have been made public and are included in this report, for information, as Table 3.[1]

The Secretariat wishes to thank Mr. Jongile Majola of the Canadian Nuclear Safety Commission (CNSC) for his work in compiling the information used for this report.

1. For more details see Information Bulletin 02-03, April 15, 2002 www.nuclearsafety.gc.ca . Contact in Ottawa is Jongile Majola at 613 992-9744

Table 1 International Licence Periods and Periodic Safety Review Requirements for Nuclear Power Reactors

Country	Licence Period Approach	Measures of Control	PSR Frequency (for Nuclear Power Plants)
Belgium	Lifetime	Continuous monitoring and safety reviews through inspection program Comprehensive safety reviews (requirements stipulated in nuclear facility licences)	Every 10 years
Canada	Fixed term (2 - 5 years)	Continuous monitoring and safety reviews through inspection program Periodic safety analysis (NB: No periodic evaluation of the overall plant design; licence renewed subject to satisfactory safety performance)	None required
Czech Republic	Lifetime	Continuous monitoring and safety reviews through inspection program Comprehensive safety reviews (requirements stipulated in nuclear facility licences)	Every 10 years
Finland	Fixed term (10 - 20 years) although the first licences were issued for 5 years	Continuous monitoring and safety reviews through inspection program Period licence renewal and comprehensive safety reviews (requirements stipulated by special licence condition)	Every 10 years

Country	Licence Period Approach	Measures of Control	PSR Frequency (for Nuclear Power Plants)
France	Lifetime	Continuous monitoring and safety reviews through inspection program In-depth safety assessments performed on request, at the regulator's discretion	Every 10 years normally: i.e. linked to the statutory 10 year outage program interval, but the in-depth assessment and timing may be determined on a case-by-case basis
Germany	Lifetime, with a nominal term of 32 years for nuclear power plants – the limit is not on the time of operation, per se, but on the remaining amount of electricity that nuclear power plants can produce	Continuous monitoring and safety reviews through inspection program Comprehensive safety reviews (currently on a voluntary basis, but requirement for PSRs is being added to the German Atomic Act)	Every 10 years
Hungary	Lifetime	Continuous monitoring and safety reviews through inspection program Comprehensive safety review requirements for nuclear facilities are stipulated by government decree	Every 10 years
Japan	Lifetime	Continuous monitoring and safety reviews through inspection program (periodic inspection of safety-critical components every 13 months) Safety reviews: some form of PSR but concentrated mainly on ageing behaviour of nuclear installations and conducted without the evaluation of the overall plant design	Full PSR not required but 'limited scope' PSR done every 10 years
Mexico	Fixed term 30 years for nuclear facilities	Continuous monitoring and safety reviews through inspection program Comprehensive safety reviews (requirements stipulated in nuclear facility licences)	Every 10 years

Country	Licence Period Approach	Measures of Control	PSR Frequency (for Nuclear Power Plants)
Netherlands	Lifetime	Continuous monitoring and safety reviews through inspection program Comprehensive safety review (requirements stipulated in nuclear facility licences)	Every 10 years
Republic of Korea	Lifetime	Continuous monitoring and safety reviews through inspection program Regulatory requirement for the licensee to maintain the licensing basis for the facility or activity Comprehensive safety review (requirement for PSRs for nuclear power plants stipulated in the Atomic Energy Act)	Every 10 years
Spain	Variable (5-10 years) Case-by-case: no fixed term but moving to 10 year standard for nuclear facilities that complete PSRs	Continuous monitoring and safety reviews through inspection program Comprehensive safety review (requirements stipulated in nuclear facility licences)	Every 10 years
Sweden	Lifetime	Continuous monitoring and safety reviews through inspection program Comprehensive safety review (requirement for PSRs for nuclear facilities stipulated in regulations)	Every 10 years
Switzerland	Lifetime (except for 2 nuclear power plants with term licences based on historical technical concerns)	Continuous monitoring and safety reviews through inspection program Comprehensive safety reviews Regulatory requirement for facilities to comply with the state-of-the-art in science and technology	Every 10 years

Country	Licence Period Approach	Measures of Control	PSR Frequency (for Nuclear Power Plants)
United Kingdom	Lifetime	Continuous monitoring and safety reviews through inspection program Comprehensive safety review requirements stipulated in conditions attached to licences	Every 10 years
United States	Fixed term (40 years, with 20-year renewal option for nuclear facilities)	Continuous performance assessment and the requirement for the licensee to maintain the licensing basis for the facility or activity	None required

Table 2 International Licence Periods for Other Activities and Nuclear Facilities

Country	Licensed Activity or Facility	Licence Period
Australia	Research Reactors Spent Fuel Storage Isotope Production Facilities Low and Intermediate Level Waste	Lifetime
Finland	Research Reactors Spent Fuel Storage Low and Medium Level Waste	Fixed term (10 - 20 years; same period as NPPs) Fixed term (up to 60 years)
France	Virtually All	Lifetime
Germany	Transport Import/Export Fuel Element Fabrication and Storage Fuel Element Storage for Transport Fuel Element Short Term Storage NPP On-Site Fuel Element Medium Term Storage Central Interim Fuel Element and Waste Storage	Fixed (1 year) Fixed term (3 years) Unlimited Variable term Fixed term (6 years) Fixed term (40 years) Fixed term (40 years)
Hungary	Fuel Facilities Research Reactors	Fixed term (10 years)
Japan	Virtually All	Lifetime

Country	Licensed Activity or Facility	Licence Period
Netherlands	Enrichment Facilities Research Reactors Research Laboratories Waste Disposal	Lifetime (Indefinite)
Republic of Korea	Virtually All	Lifetime
Sweden	Research reactors Fuel fabrication Waste facilities	Fixed term, normally 10 years Fixed term, normally 10 years Unlimited
United Kingdom	Facilities: Nuclear Decommissioning Enrichment Fuel Reprocessing Radioactive Waste Disposal Nuclear Submarine Refuelling Atomic Weapons Research Reactors	Lifetime

Country	Licensed Activity or Facility	Licence Period
United States	Uranium Mills	Fixed term (up to 10 years)
	Uranium Conversion Facilities	Fixed term (up to 10 years)
	Uranium Enrichment Facilities:	
	(USEC/DOE Gas Diffusion Plants	Re-certified for Fixed term (5 years)
	Other Facilities	Fixed term (up to 10 years)
	Uranium Fuel Fabrication Facilities	Fixed term (up to 10 years)
	Medical (By-product) Licensees	Fixed term (10 years)
	Waste Facilities:	
	Independent Spent Fuel Storage Installations	Fixed term (20 years)
	Low-Level Waste Disposal Facilities	Fixed term (10 years)
	Radioactive Materials Transportation Packages	Fixed term (5 years)

Table 3 Canadian Nuclear Safety Commission Staff Recommended Licence Period and Frequency of Periodic Report

Type of Licence or Licensed Activity/Facility	Licence Period	CNSC Staff Reports to the Commission	Licence Issued by *
Operation of Class I Nuclear Facilities — Nuclear Power Reactors	up to five (5) years **	Annual Power Reactor Industry Summary Report	Commission
Operation of Class I Nuclear Facilities — Reactors (other than nuclear power reactors), Large Particle Accelerators and Nuclear Substance Processing Facilities, Waste Facilities and Uranium Mines and Mills (i.e. other Class IA and Class IB Nuclear Facilities)	up to five (5) years **	Interim summary report (approximately mid-period and no less than once every three (3) years)	Commission
Site preparation, construction, and decommissioning of Class I Nuclear Facilities and Uranium Mines and Mills	Duration of the licensing phase (site preparation, construction and decommissioning)	At least one summary report every three (3) years	Commission
Class II Nuclear Facilities	Duration of the licensing phase (construction, operation and decommissioning)	Interim summary report — approximately mid-period and no less than once every three (3) years	Commission or Designated Officer
Licences issued for nuclear substances, radiation devices	From five (5) years to indefinitely	Annual summary report	Designated Officer
Dosimetry services	Indefinitely	At least one summary report every five (5) years	Designated Officer
New licensed activities without a proven licensee track record	Two (2) years normally, but possibly up to five (5) years, depending on class of licence	Commensurate with the class of licence (see above)	Commission or Designated Officer, depending on class of licence

Type of Licence or Licensed Activity/Facility	Licence Period	CNSC Staff Reports to the Commission	Licence Issued by *
Transaction-specific or temporary activities, import and export of nuclear substances and radiation devices, and transport	Up to five (5) years	Commensurate with the class of licence	Designated Officer
Activities carried out at non-operational facilities, such as some radioactive waste storage or disposal facilities, and partly decommissioned reactors in a storage-with-surveillance mode	From five (5) years to indefinitely	At least one report every five (5) years	Commission or Designated Officer
Significant development in a given licensed activity or facility	N/A	Significant Development Reports (SDRs) as necessary	Commission or Designated Officer

* As set out in CMD 00-M16, Establishing Classes of Licences; and CMD 00-M17, Designating Designated Officers.

** When periodic safety reviews are introduced, this period may be extended.