

## NUCLEAR OPERATOR

## LIABILITY AMOUNTS AND FINANCIAL SECURITY LIMITS

(Last updated: July 2015)

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## ACRONYMS

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- BSC:** 1963 Brussels Convention Supplementary to the 1960 Paris Convention ("Brussels Supplementary Convention").
- CSC:** 1997 Convention on Supplementary Compensation for Nuclear Damage.
- JP:** Joint Protocol Relating to the Application of the Vienna Convention and the Paris Convention.
- PC:** 1960 Paris Convention on Third Party Liability in the Field of Nuclear Energy ("Paris Convention").
- RPC:** 2004 Protocol to amend the Paris Convention ("Revised Paris Convention"), not yet in force.
- RSBC:** 2004 Protocol to amend the Brussels Supplementary Convention, ("Revised Brussels Supplementary Convention"), not yet in force.
- RVC:** 1997 Protocol to Amend the Vienna Convention ("Revised Vienna Convention").
- VC:** 1963 Vienna Convention on Civil Liability for Nuclear Damage ("Vienna Convention").
- ( ):** When between brackets, it means that the country has signed but not yet ratified the convention.

## FINANCIAL INFORMATION

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In the table:

- **First tier** corresponds to the liability amount imposed on the operator ("Operator's Liability Amount").
- **Second tier** corresponds to the amounts provided from public funds beyond the Operator's Liability Amount, to be made available by the State in whose territory the nuclear installation of the liable operator is situated ("Additional State Compensation").
- **Third tier** corresponds to public funds contributed jointly by all the States parties to the BSC or CSC according to a pre-determined formula ["Additional Compensation (International Arrangements)"].



Please note that under Article V, subparagraph 1 of the Vienna Convention, "The liability of the operator may be limited by the Installation State to not less than US \$5 million for any one nuclear incident". Subparagraph 3 of the same article further provides that "The United States dollar referred to in this Convention is a unit of account equivalent to the value of the United States dollar in terms of gold on 29 April 1963, that is to say US \$35 per one troy ounce of fine gold."

Therefore, in this table **(1963: USD 5 million)** means that a country applies the Operator's Liability Amount as provided under the Vienna Convention.






**SDR** is a unit of account used by the International Monetary Fund and is based upon a basket of weighted currencies. The latest exchange rates of SDRs per currency units are available at [http://www.imf.org/external/np/fin/data/rms\\_five.aspx](http://www.imf.org/external/np/fin/data/rms_five.aspx)





**Interest and legal costs** are not specified in the table.




State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Argentina</b> 	VC, RVC, CSC, (JP)	Nuclear installations	USD 80 million	USD 80 million	Unlimited after depletion of the insurance coverage		June 2014
<b>Armenia</b> 	VC	Nuclear installations and transport activities	Remains to be set by forthcoming legislation	No amount specified			June 2011
<b>Australia</b> 	(CSC)	Nuclear installations and transport activities	Unlimited (in absence of legislation to the contrary)				June 2011
<b>Austria</b> 	(PC), (BSC)	Nuclear installations	Unlimited	EUR 406 million			July 2015
		Experimental and research reactors and transport activities of nuclear materials	Unlimited	EUR 40.6 million			
		Holder of radionuclide-exceeding 370 gigabecquerel		EUR 4.06 million			
<b>Belarus</b> 	VC, RVC	All nuclear facilities (including the associated spent fuel and radioactive waste infrastructure)	Unlimited (to be set by the President; not lower than RVC)	Mandatory but no amount specified yet			June 2011

State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Belgium</b> 	PC, BSC, (RPC), (RBSC), (JP)	Nuclear installations	EUR 1.2 billion	EUR 1.2 billion	Between first tier and SDR 175 million	SDR 125 million	June 2014
		Transport activities	EUR 80 million	EUR 80 million			
		Certain low risk facilities (e.g. research installations)	EUR 70 million	EUR 70 million			
<b>Bolivia</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Bosnia-Herzegovina</b> 	VC, RVC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Brazil</b> 	VC	Nuclear installations	(1963: USD 5 million)	(1963: USD 5 million)			June 2011
		Research installations and transport activities		No amount specified			
		Low risk state-owned activities		No insurance required			





State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Bulgaria</b> 	VC, JP	All nuclear facilities	BGN 96 million	BGN 96 million			June 2011
<b>Cameroon</b> 	VC, JP		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Canada</b> 	(CSC)	Nuclear installations and transport activities	CAD 75 million	CAD 75 million			June 2014
<b>Chile</b> 	VC, JP	Research reactors and low risk nuclear installations	USD 75 million	USD 75 million			June 2014
<b>China</b> 		Nuclear power stations	CNY 300 million	CNY 300 million	CNY 800 million or above if approved by State Council		June 2011
		Spent fuel storage, transport activities and reprocessing					
		Other nuclear installations	CNY 100 million	CNY 100 million			





State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Croatia</b> 	VC, JP		HRK 320 million	HRK 320 million			June 2011
<b>Cuba</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Czech Republic</b> 	VC, (RVC), JP, (CSC)	Nuclear installations used for power generation purposes, storage facilities and repositories of spent fuel assigned to these installations or nuclear materials generated by reprocessing of spent fuel	CZK 8 billion	CZK 2 billion minimum			June 2014
		Other nuclear installations and transport activities	CZK 2 billion	CZK 300 million minimum			
<b>Denmark</b> 	PC, BSC, (RPC), (RBSC), JP	Nuclear installations and transport activities	SDR 60 million	SDR 60 million	SDR 115 million	SDR 125 million	June 2014
<b>Egypt</b> 	VC, JP		Unlimited (in absence of legislation to the contrary)	Unlimited (in absence of legislation to the contrary)			June 2011

State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Estonia</b> 	VC, JP		Unlimited (in absence of legislation to the contrary)	Unlimited (in absence of legislation to the contrary)			June 2011
<b>Finland</b> 	PC, BSC, (RPC), (RBSC), JP	Nuclear installations	Unlimited liability (for damage suffered within Finland)  SDR 600 million (for damage suffered outside Finland)	SDR 600 million		SDR 125 million	June 2014
<b>The Former Yugoslav Republic of Macedonia</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>France</b> 	PC, BSC, (RPC), (RBSC), JP	Nuclear installations	EUR 91.5 million	EUR 91.5 million	Between first tier and SDR 175 million	SDR 125 million	June 2014
		Low risk nuclear installations and transport activities	EUR 22.9 million	EUR 22.9 million			





State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Germany</b> 	PC, BSC, (RPC), (RBSC), JP	Nuclear power plants	Unlimited	EUR 2.5 billion	Up to EUR 2.5 billion	SDR 125 million	June 2014
		Other nuclear facilities		Up to EUR 2.5 billion (maximum depending on thermal capacity [for reactors]; on type, amount, activity and nature of radioactive substances [for other installations])			
		Transport activities		Up to EUR 70 million (maximum depending on type, amount, activity and nature of the radioactive substances)			
<b>Greece</b> 	PC, JP, (RPC)	Nuclear installations and transport activities	SDR 15 million	SDR 15 million			June 2014
<b>Hungary</b> 	VC, (RVC), JP	Nuclear installations	SDR 100 million	SDR 100 million	SDR 200 million		June 2011
		Transport or storage of nuclear fuel	SDR 5 million	SDR 5 million	SDR 295 million		








State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>India</b> 	(CSC)	Nuclear reactor having thermal power equal to or above 10 MW	Rs 1 500 Crores (INR 15 billion)	Rs 1 500 Crores (INR 15 billion)	After depletion, from the operator's liability and up to SDR 300 million		June 2014
		Spent fuel reprocessing plant	Rs 300 Crores (INR 3 billion)	Rs 1 500 Crores (INR 15 billion)			
		Research reactors having thermal power below 10 MW, other fuel cycle facilities and transportation of nuclear materials	Rs 100 Crores (INR 1 billion)	Rs 1 500 Crores (INR 15 billion)			
<b>Indonesia</b> 	(RVC), (CSC)	Nuclear installations	IDR 4 trillion	No information			June 2011
<b>Israel</b> 	(VC)		No information	No information			June 2011
<b>Italy</b> 	PC, BSC, (RPC), (RBSC), (RVC), JP, (CSC)	Nuclear installations	SDR 5 million	SDR 5 million	SDR 170 million	SDR 125 million	June 2014
		Transport activities	SDR 15 million	SDR 15 million	SDR 160 million		



State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Japan</b> 	CSC	Nuclear reactors above 10 000 kW and spent fuel reprocessing facilities	Unlimited	JPY 120 billion	After depletion of the operator's liability, such aid to be determined by the Diet		June 2014
		Other nuclear installations and transport activities where higher risk material is involved	Unlimited	JPY 24 billion			
		Other nuclear installations and transport activities where lower risk materials are involved	Unlimited	JPY 4 billion			
<b>Jordan</b> 	VC, RVC		No information	No information			June 2014
<b>Kazakhstan</b> 	VC, RVC		No information	No information			June 2014
<b>Korea</b> 		Power reactors above 10 000 kW	SDR 300 million	SDR 300 million <sup>i</sup>			July 2015
		Research reactors above 10 000 kW		KRW 6 billion			
		Reactors under 10 000 kW		KRW 20 million – 1 billion depending upon its size			
		Fuel cycle facilities		KRW 10 million – 2 billion depending upon its process			
		Handling and transportation		KRW 20 million – 200 million depending upon its process			
		Spent fuel interim storage		KRW 2 billion			




i. An insurance policy covers maximum six reactor units for the same site.





State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
Latvia 	VC, RVC, JP	Nuclear installations	LVL 4 million	LVL 4 million	Difference between available insurance and LVL 80 million		June 2011
		Other practices (nuclear facilities, radioactive waste disposal / management facilities)	LVL 800 000	LVL 800 000			
		Practices involving high doses of radiation sources	LVL 400 000	LVL 400 000			
		Practices involving medium doses of radiation sources	LVL 80 000	LVL 80 000			
		Other practices which require a special license	LVL 1 000	LVL 1 000			
Lebanon 	VC, (RVC), (CSC)		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
Lithuania 	VC, (RVC), JP, (CSC)	Nuclear installations and transportation	LTL equivalent of (1963: USD 5 million)	LTL equivalent of (1963: USD 5 million)			June 2011
Luxembourg 	(PC), (BSC)		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2014

State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Mauritius</b> 	VC, (CSC)		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2014
<b>Mexico</b> 	VC	Nuclear installations and transportation	MXN 100 million pesos for each nuclear incident  MXN 195 million pesos in case of successive nuclear incidents occurring at the same nuclear installation within a period of twelve consecutive months	No amount specified, but MXN 100 million pesos indirectly required			June 2014
<b>Moldova</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Montenegro</b> 	VC, RVC, CSC		No information	No information			July 2015
<b>Morocco</b> 	(VC), RVC, CSC, (JP)		SDR 100 million	No amount specified	SDR 5 million		June 2011






State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Netherlands</b> 	PC, BSC, (RPC), (RBSC), JP	Nuclear power plants and storage facilities	EUR 1.2 billion	EUR 1.2 billion		SDR 125 million	June 2014
		Enrichment facilities and closed nuclear power plants	EUR 45 million	EUR 45 million	EUR 154 million		
		Research reactors and transport of irradiated nuclear fuel	EUR 22.5 million	EUR 22.5 million	EUR 177.9 million		
		Transport of all other substances	EUR 8 – 13.5 million	EUR 8 – 13.5 million	EUR 193.3 – 187.4 million		
<b>Niger</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Nigeria</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Norway</b> 	PC, BSC, RPC, RBSC, JP	Nuclear installations and transport activities	SDR 60 million	SDR 60 million	SDR 115 million	SDR 125 million	June 2014
		Exceptional cases, nuclear installations and transport activities	SDR 5 million minimum	SDR 5 million minimum	SDR 170 million		
<b>Pakistan</b> 			No information	No information			June 2014

State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
Peru 	VC, (RVC), (CSC)		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
Philippines 	VC, (RVC), (JP), (CSC)	Nuclear installations and transport activities	USD 5 million	USD 5 million to be decided on a case by case basis	After depletion of the operator's liability, such aid as may be determined by the Congress		June 2011
Poland 	VC, RVC, JP	Nuclear installations	SDR 300 million	SDR 300 million			June 2014
		Research reactors or a nuclear facility where nuclear material originated from it is kept or stored, as well as transportation of nuclear material from such facilities		SDR 400 000-5 million			
		Nuclear material and spent fuel storage and disposal facilities for nuclear materials not originated from research reactors		SDR 300 million			
		Radioactive waste repositories					
Portugal 	PC, (RPC), (JP)	Nuclear installations and transport activities	SDR 15 million	No amount specified			June 2014

State	International Liability Convention	Installations / Activities	Operator’s Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Romania</b> 	VC, RVC, JP, CSC	Nuclear installations	SDR 300 million (can be reduced to SDR 150 million if State provides for the difference up to SDR 300 million)	SDR 300 million (Can be reduced to SDR 150 million if State provides for the difference up to SDR 300 million)	Difference between first tier and SDR 300 million		June 2011
		Research reactors, radioactive waste and spent nuclear fuel repositories	SDR 10-30 million (can be reduced to SDR 10 million if State provides for the difference up to SDR 30 million)	SDR 10-30 million (Can be reduced to SDR 10 million if State provides for the difference up to SDR 30 million)	Difference between first tier and SDR 30 million		
		Transport of nuclear fuel	SDR 25 million	SDR 25 million			
		Transport of nuclear materials	SDR 5 million	SDR 5 million			
<b>Russian Federation</b> 	VC	Nuclear installations	Unlimited	No amount specified, but recommended amount is (1963: USD 5 million)	After depletion of the financial security		June 2014
<b>Saint Vincent and Grenadines</b> 	VC, JP	Nuclear installations	Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011



State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Saudi Arabia</b> 	VC, RVC	Nuclear installations	Unlimited (in absence of legislation to the contrary)	No amount specified			June 2014
<b>Senegal</b> 	VC, (CSC)	Nuclear installations	No information	No information			June 2014
<b>Serbia</b> 	VC		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Slovak Republic</b> 	VC, JP	Nuclear installations with nuclear reactors or nuclear reactors for energy purposes, during commissioning and operation	EUR 300 million	EUR 300 million			June 2014
		Other nuclear installations during commissioning and operation, shipments of radioactive materials and all nuclear installation in decommissioning	EUR 185 million	EUR 185 million			



State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Slovenia</b> 	PC, BSC, JP, (RPC), (RBSC)	Nuclear installations	SDR 150 million	SDR 150 million	SDR 25 million	SDR 125 million	June 2014
		Research reactors		SDR 5 million	SDR 170 million		
		Transport activities		SDR 20 million	SDR 155 million		
<b>South Africa</b> 		Koeberg Nuclear power station (2 units)	ZAR 2.4 billion	ZAR 2.4 billion	After depletion of the operator's liability, such aid as may be determined by the Parliament		June 2014
		Safari-1 Research reactor	ZAR 120 million	ZAR 120 million			
		Other nuclear installations	ZAR 1 million	ZAR 1 million			
<b>Spain</b> 	PC, BSC, (RPC), RBSC, (VC), (JP)	Nuclear installations	EUR 700 million	EUR 700 million	Between first tier and SDR 175 million	SDR 125 million	June 2014
		Low risk nuclear installations and transport activities	EUR 30 million minimum	EUR 30 million minimum			
<b>Sweden</b> 	PC, BSC, JP, (RPC), (RBSC)	Nuclear installations	SDR 300 million	SDR 300 million		SDR 125 million	June 2014
		Installations for production, treatment, storage and transport activities	SDR 10 million	SDR 10 million	SDR 165 million		
<b>Switzerland<sup>ii</sup></b> 	BSC, PC, RPC, RBSC, (JP)	Nuclear installations and transport activities	Unlimited	CHF 1 billion			June 2014
		Transit across Switzerland	Unlimited	CHF 50 million			

- ii. On 9 March 2009, Switzerland deposited its instrument of ratification of the 1960 Paris Convention as amended by the 1964, 1982 and 2004 amending Protocols and on 11 March 2009 Switzerland deposited its instrument of ratification of the 1963 Brussels Supplementary Convention as amended by the 1964, 1982 and 2004 Protocols. As ratifications are effective only with respect to the conventions as amended by all the respective amending protocols, entry into force for Switzerland of the RPC and RBSC will only take place once the 2004 Protocols to amend them have themselves entered into force.

State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>Trinidad and Tobago</b> 	VC		Unlimited liability (in absence of legislation to the contrary)	No amount specified			June 2011
<b>Turkey</b> 	PC, JP, (RPC)	Nuclear installations	SDR 15 million	No amount specified			June 2011
		Transport activities	SDR 5 million minimum				
<b>Ukraine</b> 	VC, (RVC), JP, (CSC)	Nuclear installations	SDR 150 million	SDR 150 million			June 2011
		Research reactors (Kiev NRI and Sebastopol reactors)	SDR 5 million				
<b>United Arab Emirates</b> 	RVC, JP, CSC	Nuclear installations	SDR 450 million	SDR 450 million			July 2014
		Research reactors, low power reactors and facilities to process or store nuclear material	SDR 5 million minimum	SDR 5 million minimum			
<b>United Kingdom</b> 	PC, BSC, (RPC), (RBSC), (VC), (JP)	Nuclear installations and operator transport activities	GBP 140 million	GBP 140 million	Between first tier and SDR 175 million	SDR 125 million	June 2014
		Low risk facilities (e.g. research reactors)	GBP 10 million	GBP 10 million			

State	International Liability Convention	Installations / Activities	Operator's Liability Amount	Financial Security Limit	Additional State Compensation if any	Additional Compensation (International Arrangements) if any	Last updated by the NEA
<b>United States of America</b> 	CSC	Commercial power reactors rated at or above 100 000 kW(e)	USD 12.985 billion	<p>USD 375 million + premium charges up to about USD 12.610 billion</p> <p>Total: USD 12.985 billion</p> <p>Calculation of premium charges based on assessment of USD 121.255 million for each nuclear reactor (104 as of June 2014) at the time of the nuclear accident.</p> <p>Amounts established by the US Nuclear Regulatory Commission rule published in 78 Fed. Reg. 41835 (12 July 2013).</p>	After depletion of initial funds, the Congress may determine additional amounts.		June 2014
		Commercial power reactors rated at less than 100 000 kW(e) and transport activities	USD 560 million	<p>USD 560 million (USD 60 million by insurance + 500 million by federal indemnification)</p>			
<b>Uruguay</b> 	VC, JP		Unlimited (in absence of legislation to the contrary)	No amount specified			June 2011