



**General Distribution**

**September 2000**

## **ISOE INFORMATION SHEET**

### **PRELIMINARY DOSIMETRIC RESULTS FOR 1999**

**IAEA Technical Centre - Information Sheet No. 5**

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#### **Preliminary data for 1999**

This ISOE Information Sheet presents the collective dose per reactor by country over the past three years (1997-1999) as well as long term trends for ISOE participants through the IAEA. Data were reported from ten countries in 1999 and Table 1 shows the average collective dose for operating PWRs, and PHWRs also for 1997 and 1998.

The PWR average collective dose per reactor, in general, followed a downward trend from 1.68 man Sv in 1997 to 1.19 man Sv in 1998 and further decreased to 0.97 man Sv in 1999. The value of Armenia decreased from 3.41 man Sv in 1997 to 1.58 man Sv in 1999, for Ukraine 2.05 man Sv in 1997 to 1.37 man Sv in 1999 and for South Africa from 1.24 man Sv in 1997 to 0.86 man Sv in 1999.

For LWGR reactors, represented by two units in Lithuania and one unit in Ukraine, the dose decreased from 9.25 man Sv in 1997 to 8.08 man Sv in 1999. The increase from 7.53 man Sv in 1998 is due to the inclusion of one more reactor in 1999. The average collective dose for these reactors is higher than for other types of reactors.

Table 1: Average collective dose per reactor by country from 1997 to 1999

Country	Average collective dose per reactor (man Sv)		
	1997	1998	1999
Armenia	3.41	1.51	1.58
Brazil	2.61	1.26	0.16
China	0.67	0.71	0.55
Slovakia	0.77	0.98	0.59
Slovenia	0.99	1.25	1.65
South Africa	1.24	0.65	0.86
Ukraine	2.05	1.89	1.37
<b>Sub-Total (PWR)</b>	<b>1.68</b>	<b>1.19</b>	<b>0.97</b>
Lithuania (LWGR)	9.25	7.53	6.39
Ukraine (LWGR)			11.47
<b>Sub-Total (LWGR)</b>	<b>9.25</b>	<b>7.53</b>	<b>8.08</b>
Romania (PHWR)	0.25	0.26	0.46

For PHWR reactors, represented by one unit in Romania, the dose increased slightly from 0.25 man Sv in 1997 to 0.46 man Sv in 1999.

The figures below show PWR and LWGR annual average collective dose per reactor by country from 1986 to 1999. Several peaks in the figures are recognized as the refueling outages.

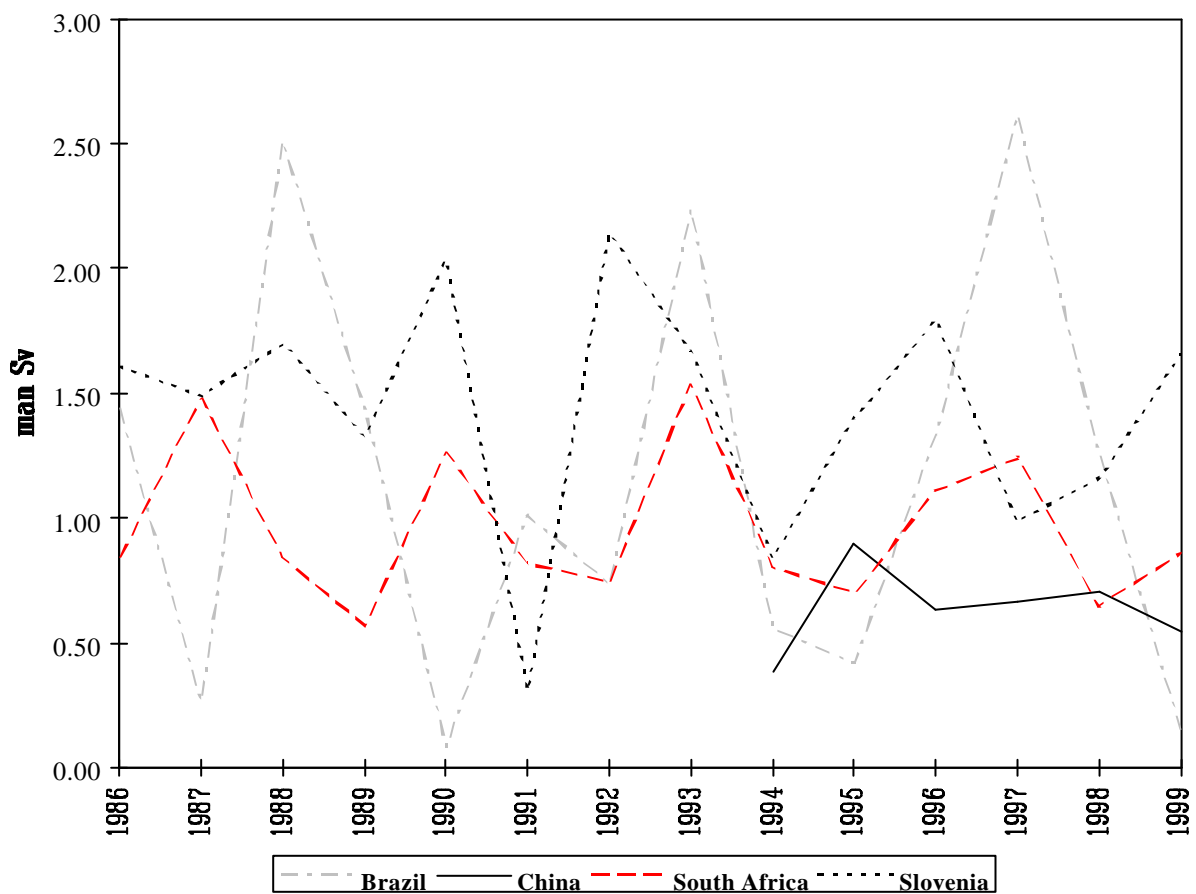
### **ISOE membership through IAEA**

In 1998 the five nuclear power plants of Ukraine, i.e. Chernobyl, Khmel'nitski, Rovno, South Ukraine and Zaporozhe, joined the ISOE through the Ukrainian Department of Nuclear Energy of the Ministry of Energy. All the nuclear power plants except Chernobyl (RBMK) are of the WWER type. The regulatory authorities of Bulgaria and Pakistan joined the ISOE in 1999, and in 2000 the regulatory authority of Lithuania, the Mochovce Nuclear Power Plant in the Slovak Republic and the following nuclear power plants in the Russian Federation, namely, Balakovo, Beloyarsky, Kalinin, Kola and Novovoronezh, joined the ISOE. Thus, as of September 2000 participation in the ISOE through the IAEA includes twelve utilities in Armenia, Brazil, China, Lithuania, Romania, Russian Federation, Slovakia, Slovenia, South Africa and Ukraine (representing 47 operating reactors) and the regulatory authorities in Armenia, Bulgaria, China, Lithuania, Pakistan, Romania, Slovakia, Slovenia and South Africa.

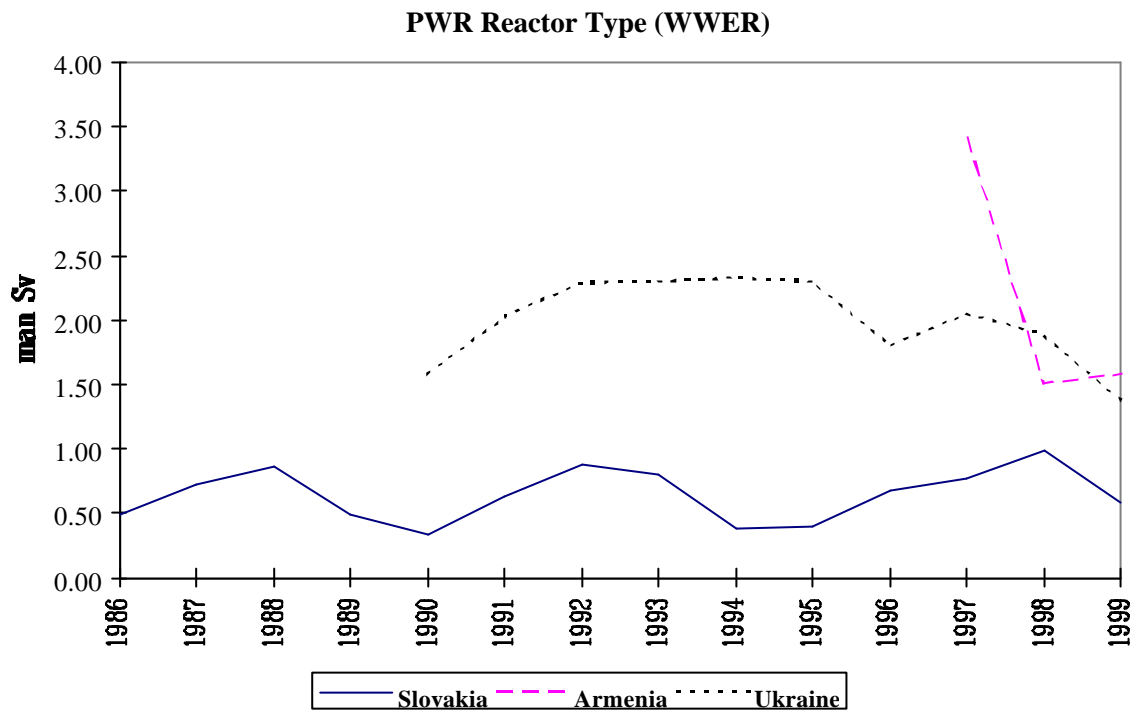
### Additional information

The reader is encouraged to visit the web site where further information on the IAEA ISOE Technical Centre as well as the IAEA Radiation and Waste Safety programme is found: <http://www.iaea.org/ns/rasanet>. Information on IAEA Publications, including guidance on how to order, is given under: <http://www.iaea.org/worldatom/books>.

**Evolution of PWRs Average Collective Dose per Reactor  
by Country  
(1986-1999)**



**Evolution of PWRs Average Collective Dose per Reactor  
by Country  
(1986-1999)**



**Evolution of LGWRs Average Collective Doses per Reactor  
by Country (Lithuania)  
(1986-1999)**

