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ISOE INFORMATION SHEET

**KOREA, REPUBLIC OF;
SUMMARY OF NATIONAL DOSIMETRIC TRENDS**

ISOE Asian Technical Center - Information Sheet No. 22

The dosimetric trend at the Korean NPPs showed continuous reduction in both the average annual collective dose per reactor unit and average annual individual worker dose.

For the year of 2002, 17 NPPs were in operation; 13 PWR units and 4 CANDU units. A new PWR (1,000 MWe), Yonggwang Unit 6 completed the test operation and started its commercial operation in 2002. The average collective dose per unit for the year 2002 was 0.55 man-Sv dropping from 0.67 man-Sv in 2001, 0.71 man-Sv in 2000.

As in previous years, the outages of units in 2002 contribute to the major part of the collective dose; 71.3% of the collective dose was due to works carried out during the outages. Average annual collective doses of both reactor types for 5 years and average annual collective doses per unit in 2002 are shown in the following tables:

Average annual collective doses per unit for 5 years (man-Sv)

Year	1998	1999	2000	2001	2002
PWR (number of reactors)	1.04 (11)	0.84 (11)	0.77 (12)	0.67 (12)	0.52 (13)
CANDU (number of reactors)	1.01 (3)	0.85 (4)	0.55 (4)	0.67 (4)	0.63 (4)

Average annual collective and individual doses per unit for the year of 2002

NPP	Type	Outage Duration (days)	Collective Doses (man-Sv)	Average Individual Doses (mSv)
Kori 1	PWR	-	0.17	0.63
Kori 2	PWR	33	0.60	0.63
Kori 3	PWR	29	1.34	1.32
Kori 4	PWR	-	0.40	1.32
Yonggwang 1	PWR	37	0.82	0.91
Yonggwang 2	PWR	-	0.23	0.91
Yonggwang 3	PWR	39	0.45	0.82
Yonggwang 4	PWR	40	0.61	0.82
Yonggwang 5	PWR	-	0.05	0.06
Ulchin 1	PWR	-	0.14	1.18
Ulchin 2	PWR	76	1.22	1.18
Ulchin 3	PWR	39	0.37	0.53
Ulchin 4	PWR	53	0.35	0.53
Wolsong 1	CANDU	-	0.31	0.95
Wolsong 2	CANDU	34	0.78	0.95
Wolsong 3	CANDU	29	0.78	1.23
Wolsong 4	CANDU	33	0.66	1.23

In 2002, the number of people who were occupied in radiation works was 8,346 and the total collective dose was 9.32 man-Sv. The dose is lower than that of the year 2001(10.75 man-Sv) and this is due to the continuous efforts for ALARA and shortening of outage days.

Collective doses and outage duration in 2001/2002

Year	Number of Reactors	Collective Doses (man-Sv)		Outage Duration	
		Total	Average Doses per Unit	Number of Outage Reactors	Duration Days
2001	16	10.75	0.67	13	510
2002	17	9.32	0.55	11	438

Principal Events

Staff of the Korea Institute of Nuclear Safety (KINS) worked on the ISOEDAT with the help of the CEPN in order to make the ISOEDAT run on the Asian operating systems (Korea, China, and Japan) that have a two-byte character system. After deletion of special characters from the ISOEDAT, the running of the ISOE software was verified under the environment of Windows XP (Korean and English version) as well as Windows ME (Japanese version).