



Occupational Exposure at Japanese Nuclear Power Plants

2012 ISOE Asian ALARA Symposium
September 24- 25, 2012, JNES, Tokyo Japan

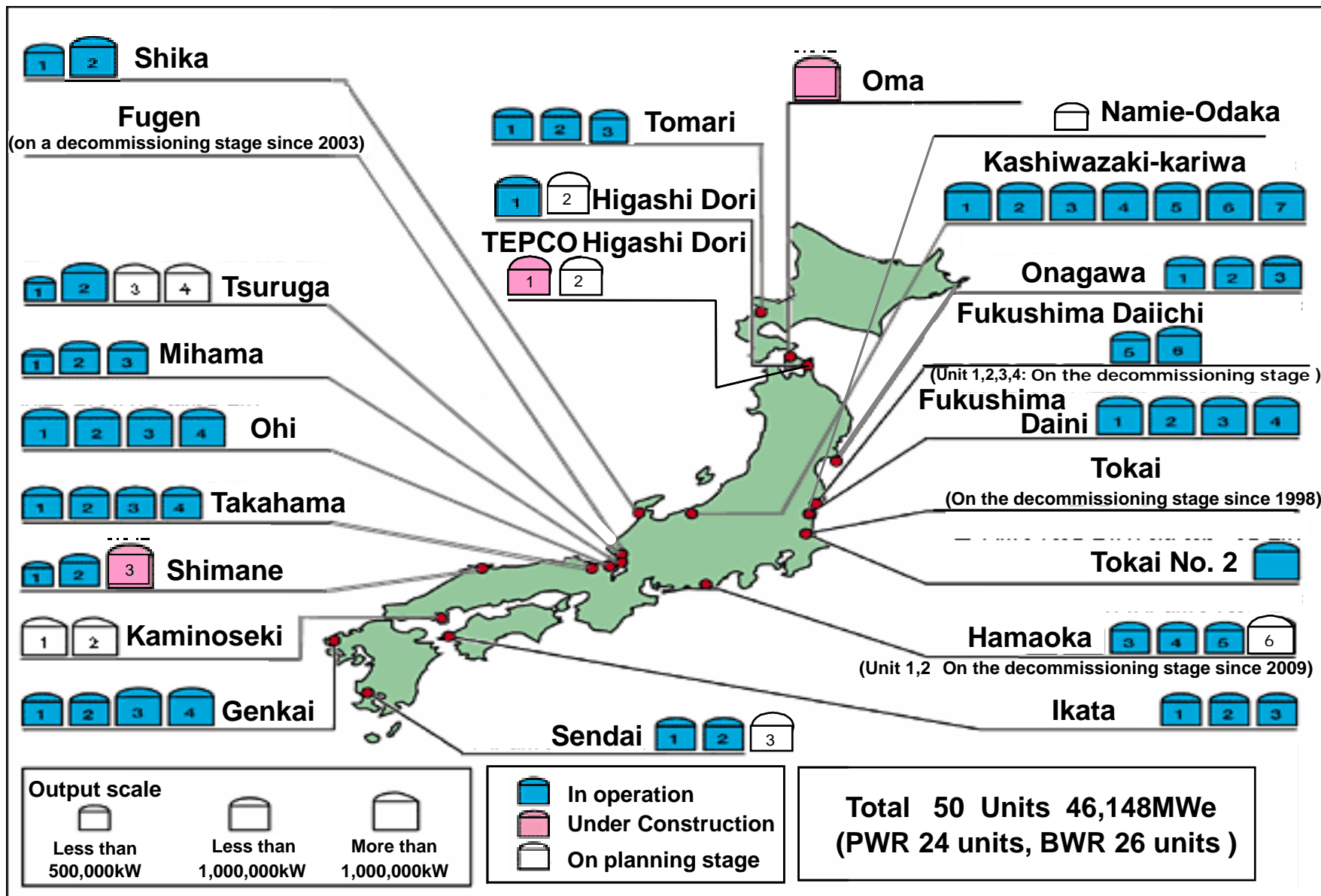
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Japan Nuclear Energy Safety Organization (JNES)

Nuclear Power Plants in Japan

as of March 31, 2012

| | | BWR | PWR | GCR | Total |
|-----------------------|--------------|--------|--------|-----|--------|
| In Operation | No. of Units | 26 | 24 | - | 50 |
| | Output (MWe) | 25,870 | 20,278 | - | 46,148 |
| Under Construction | No. of Units | 3 | - | - | 3 |
| | Output (MWe) | 4,141 | - | - | 4,141 |
| On Planning | No. of Units | 6 | 3 | - | 9 |
| | Output (MWe) | 7,721 | 4,666 | - | 12,387 |
| Under Decommissioning | No. of Units | 6 | - | 1 | 7 |
| | Output (MWe) | 4,192 | - | 166 | 4,358 |

Nuclear Power Plants in Japan

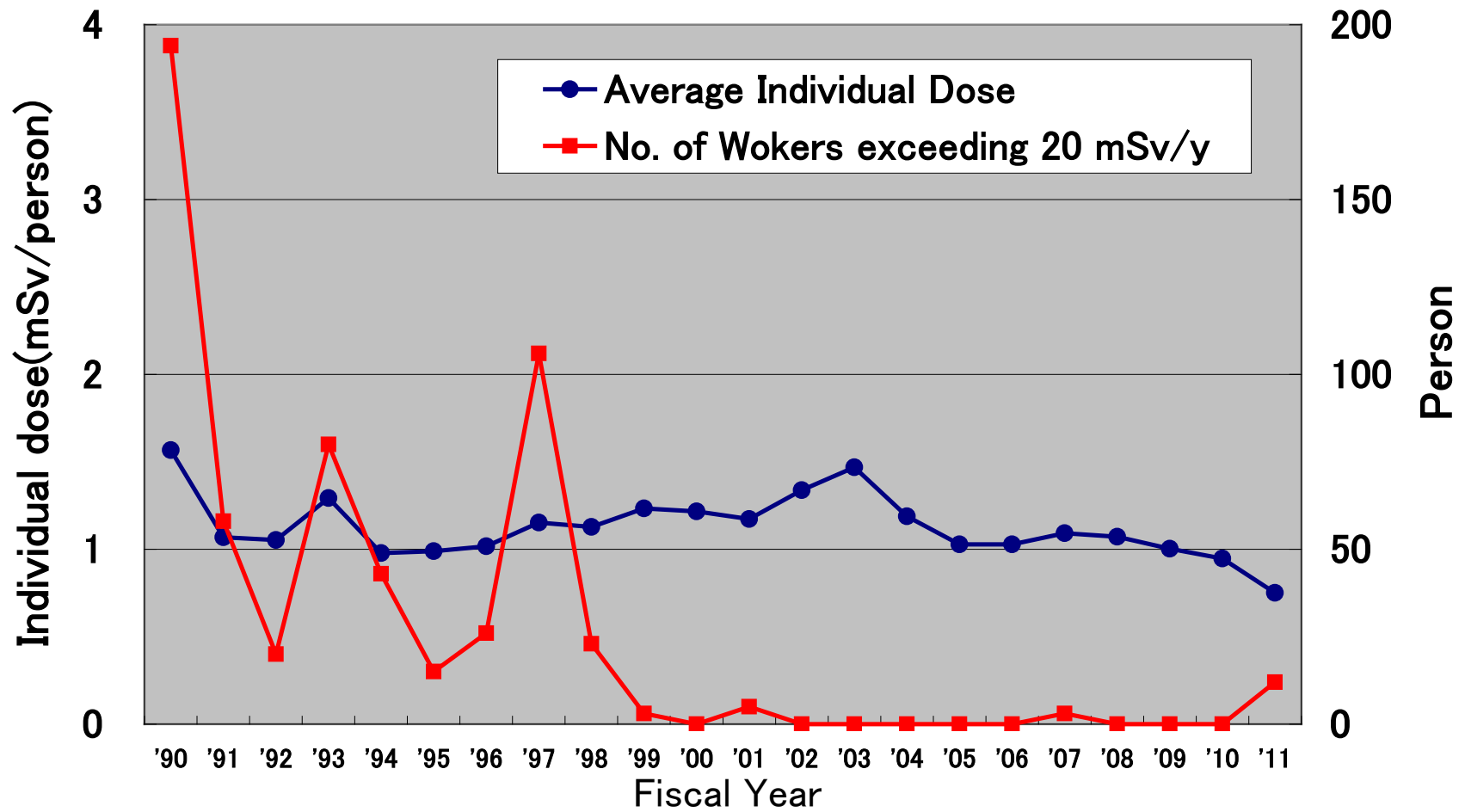


Average Individual Dose in Fiscal Year 2011 (April 2011 – March 2012)

| Plants | Units | Persons | mSv/person |
|------------------|-----------------|---------|------------|
| BWR | 22 ¹ | 33,519 | 0.69 |
| PWR | 24 | 28,183 | 0.82 |
| LWR (BWR+PWR) | 46 | 61,702 | 0.75 |

1. Includes Hamaoka 1 & 2 under decommissioning, and dose not include Fukushima Daiichi (6 BWR) and Fukushima Daini (4 BWR)

Trend of Average Individual Dose



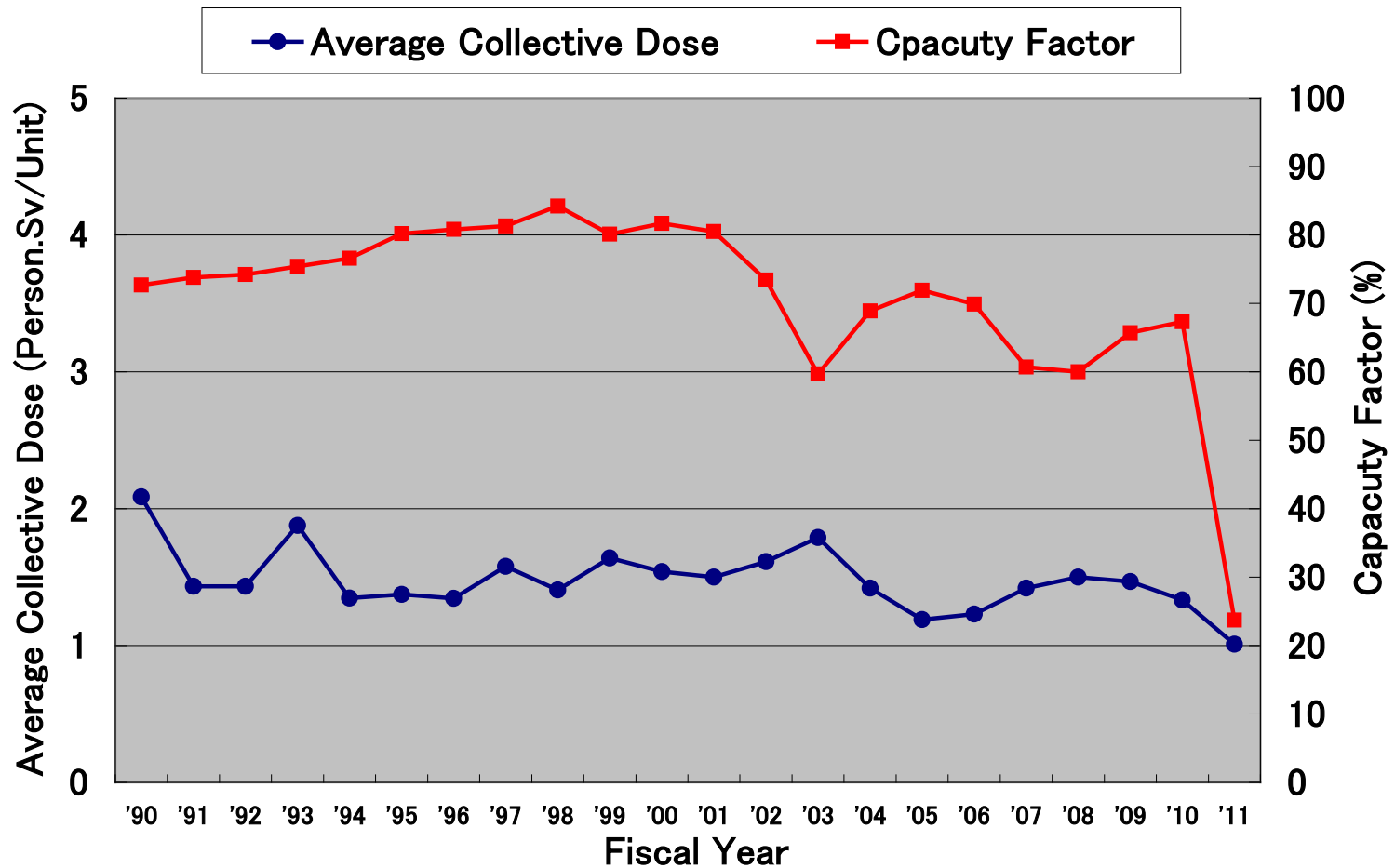
*) Data exclude Fukushima Daiichi for FY 2010, and
Fukushima Daiichi and Fukushima Daini for FY 2011.

Collective Dose in Fiscal Year 2011 (April 2011 – March 2012)

| Plants | Units | Person-Sv | Person-Sv/Unit |
|------------------|-----------------|-----------|----------------|
| BWR | 22 ¹ | 23.17 | 1.05 |
| PWR | 24 | 23.12 | 0.96 |
| LWR (BWR+PWR) | 46 | 46.29 | 1.01 |

1. Includes Hamaoka 1 & 2 under decommissioning, and dose not include Fukushima Daiichi (6 BWR) and Fukushima Daini (4 BWR)

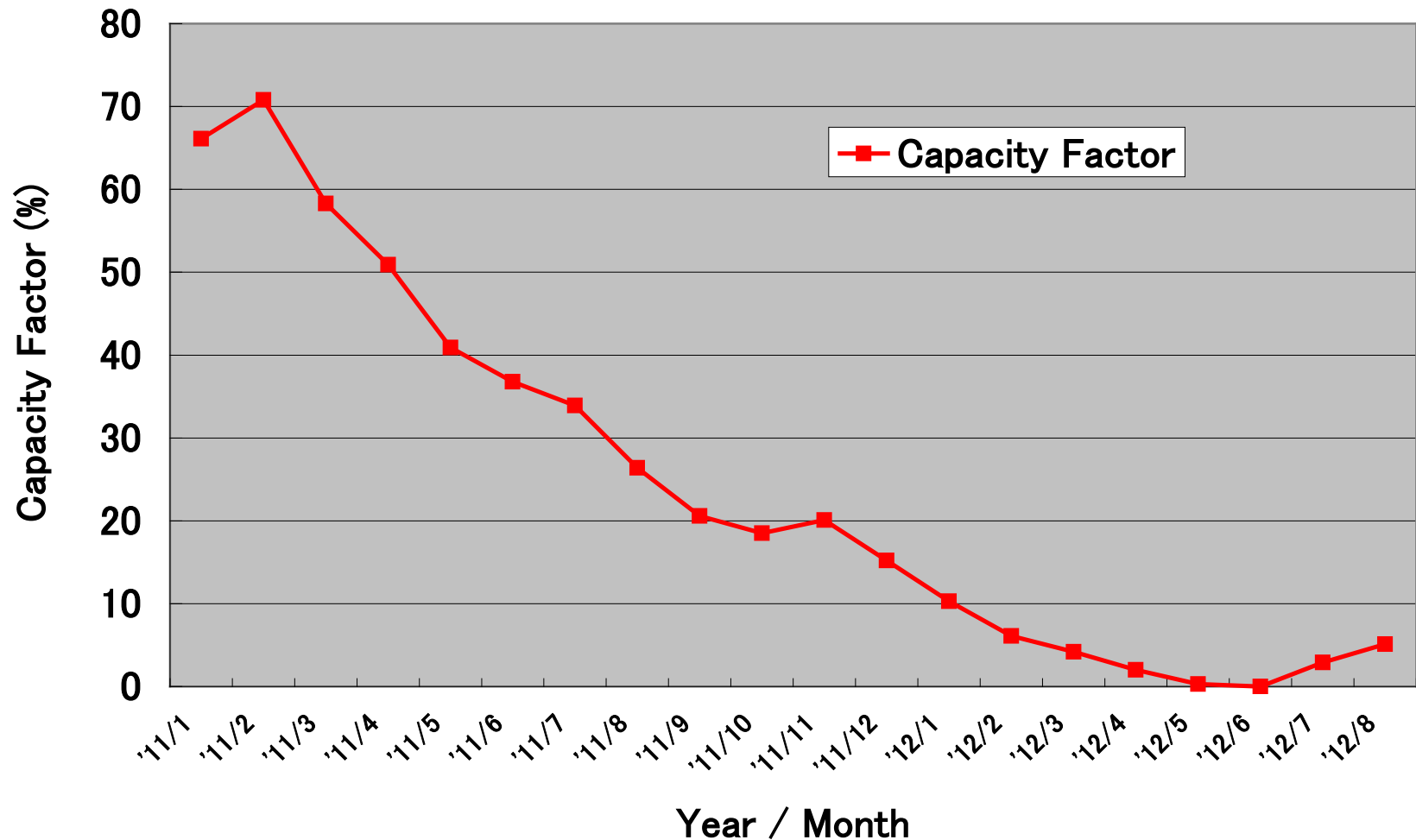
Trend of Average Collective Dose per Reactor and Capacity Factor



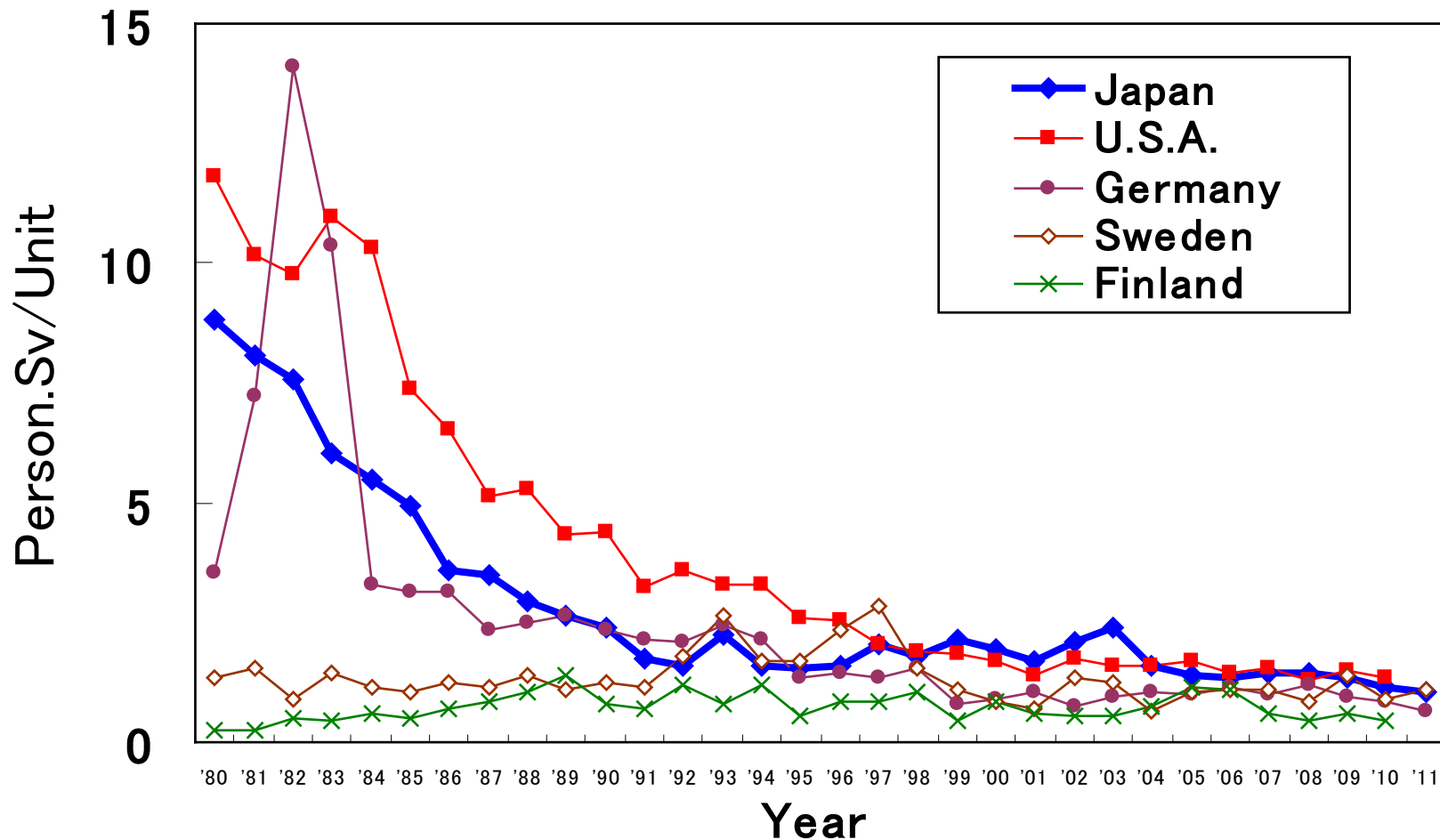
*) Dose data exclude Fukushima Daiichi for FY 2010, and Fukushima Daiichi and Fukushima Daini for FY 2011.

Trend of Capacity Factor by Month

(January 2011 – August 2012)

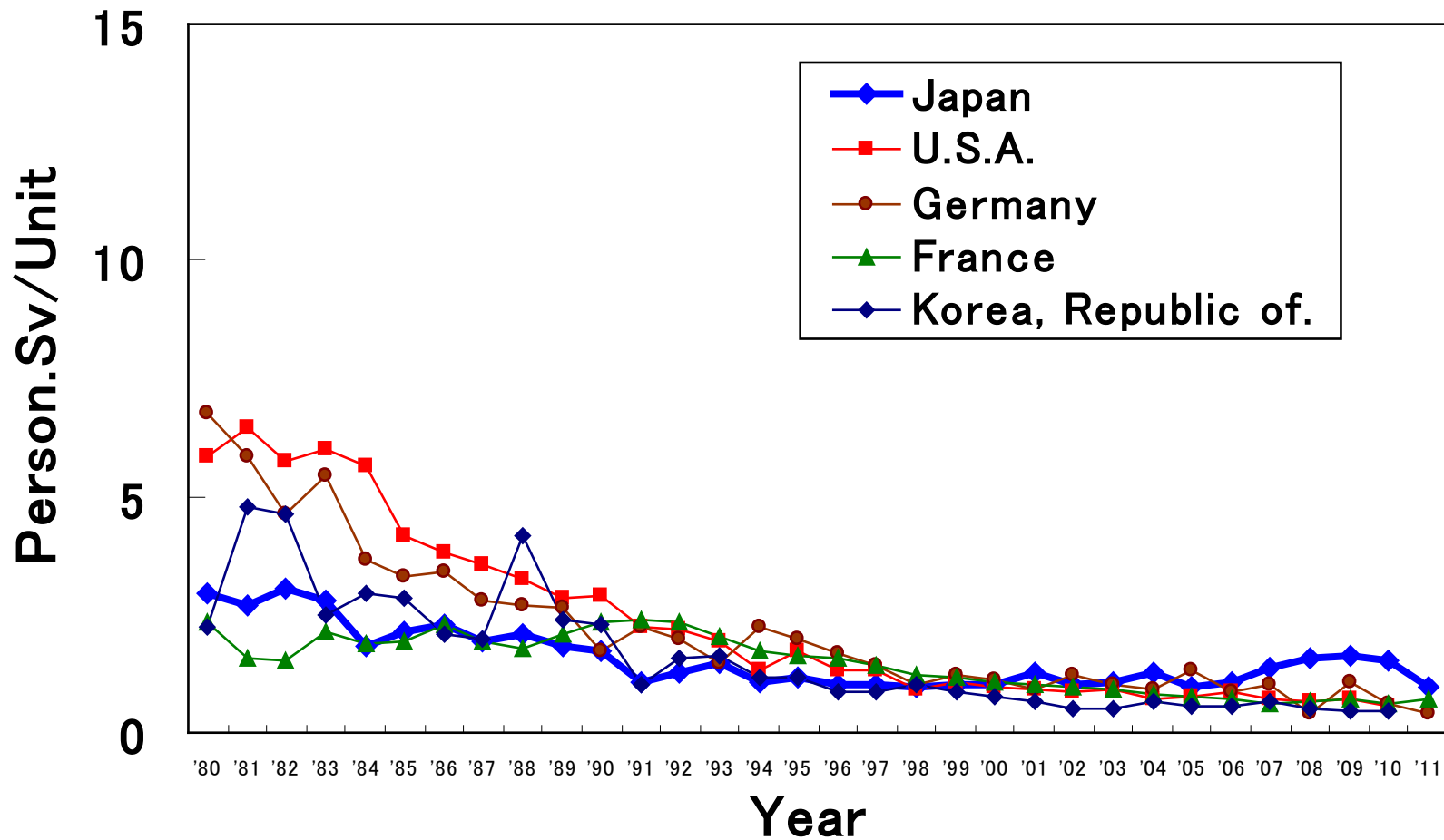


BWR Average Collective Dose per Reactor by Country(1980-2011)

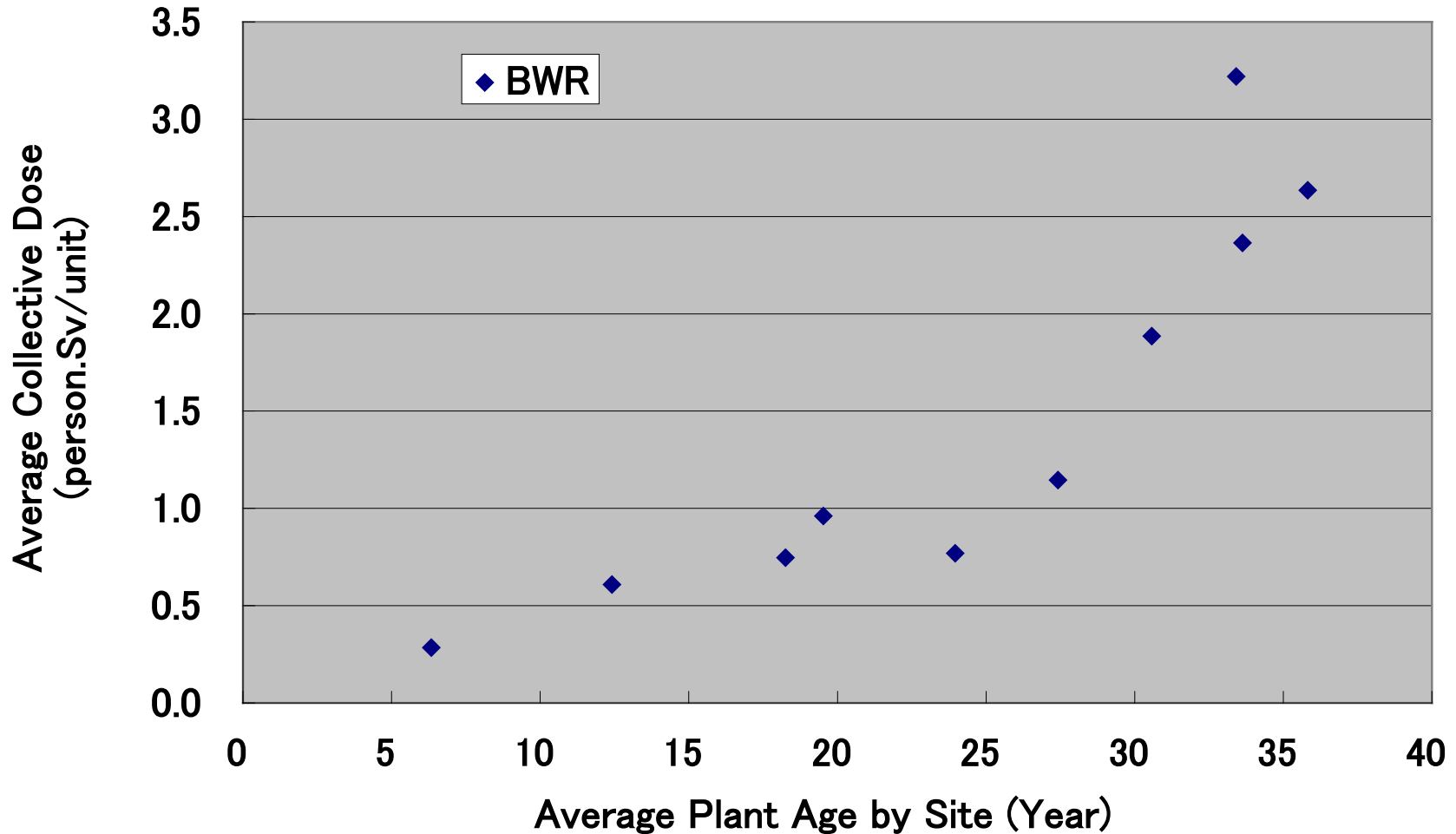


*) Dose data exclude Fukushima Daiichi for FY 2010, and Fukushima Daiichi and Fukushima Daini for FY 2011.

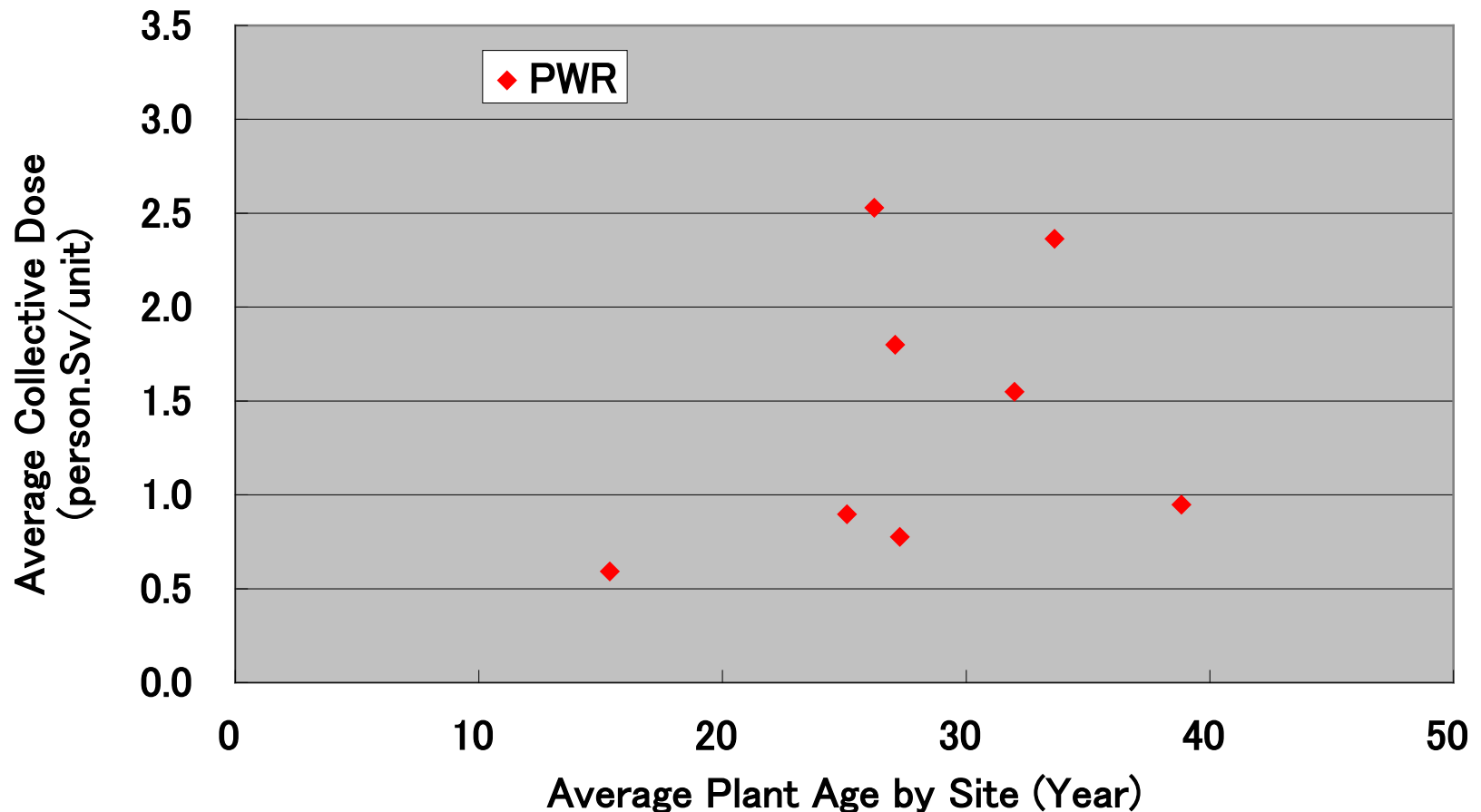
PWR Average Collective Dose per Reactor by Country(1980-2011)



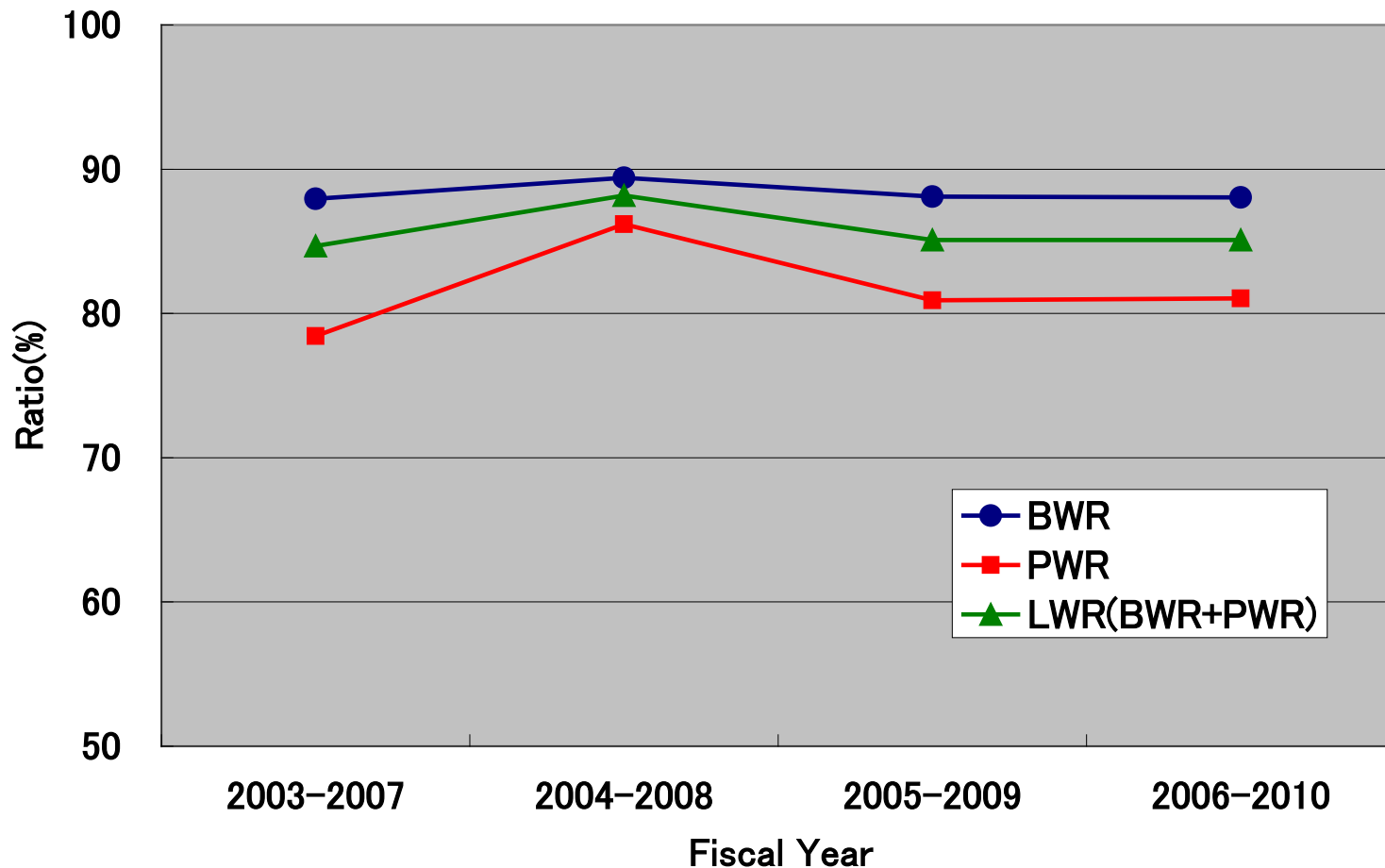
Average Collective Dose by Site (BWR)



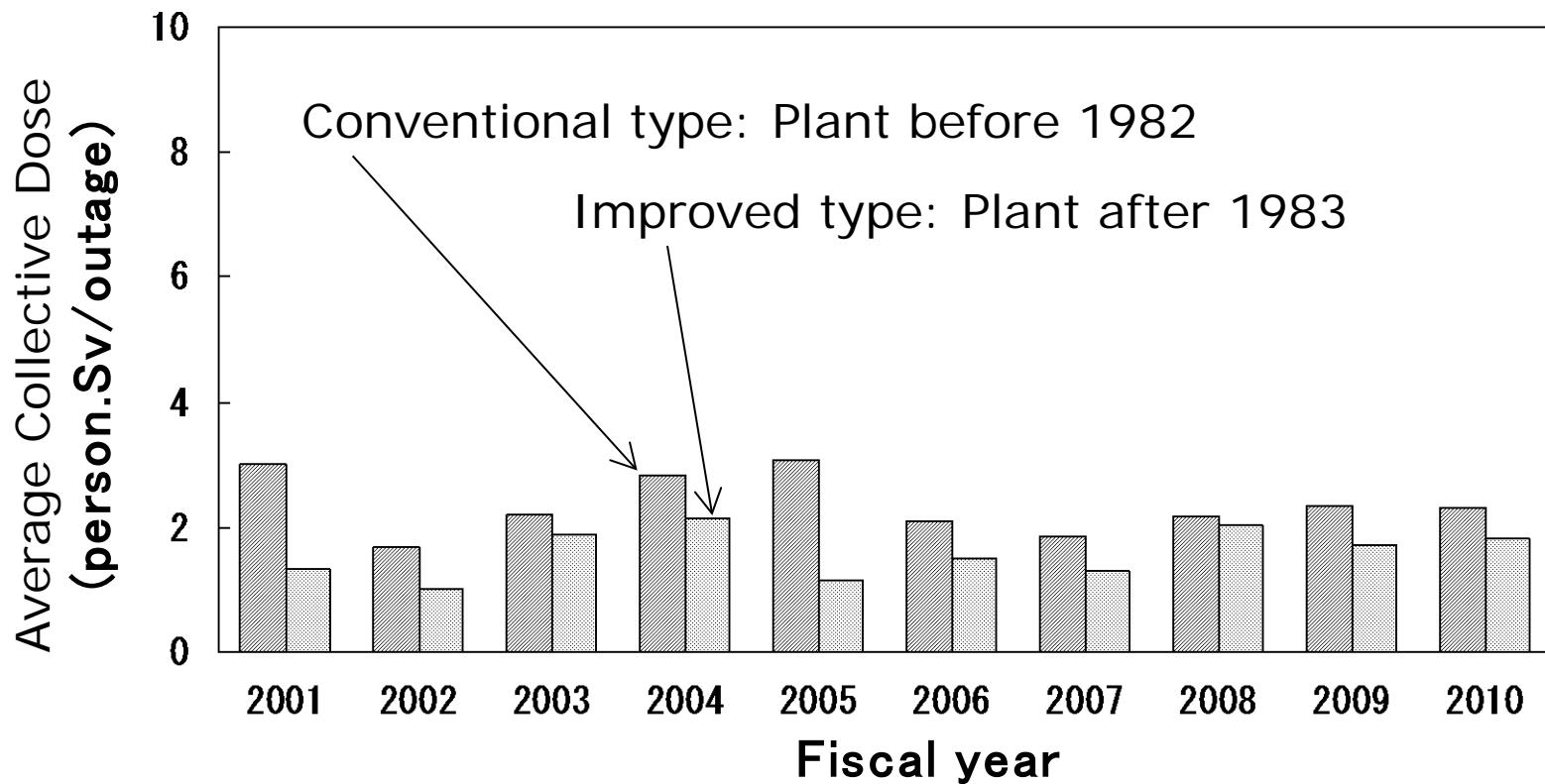
Average Collective Dose by Site (PWR)



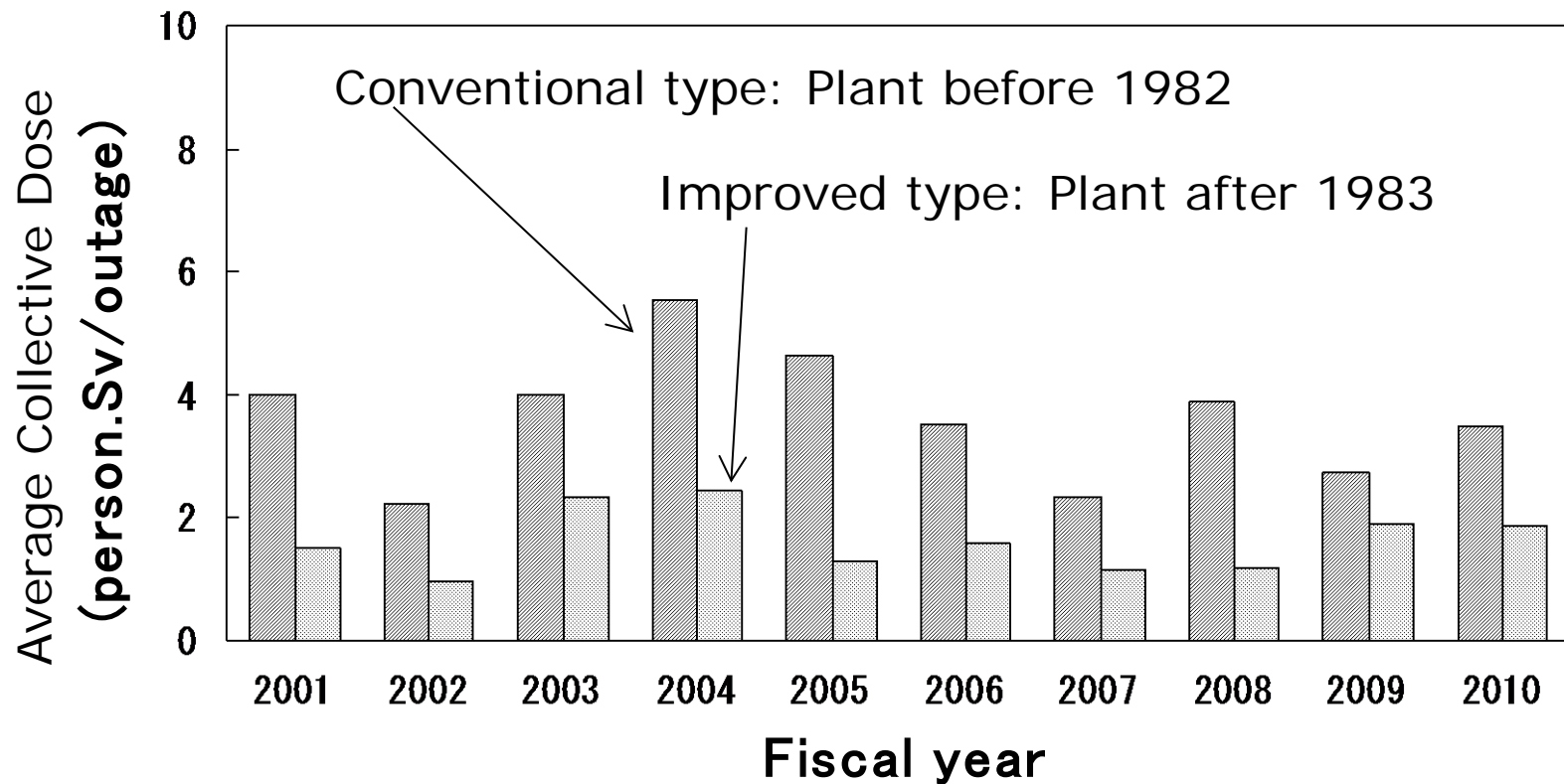
Contribution of outage collective dose to annual collective dose (5-year average)



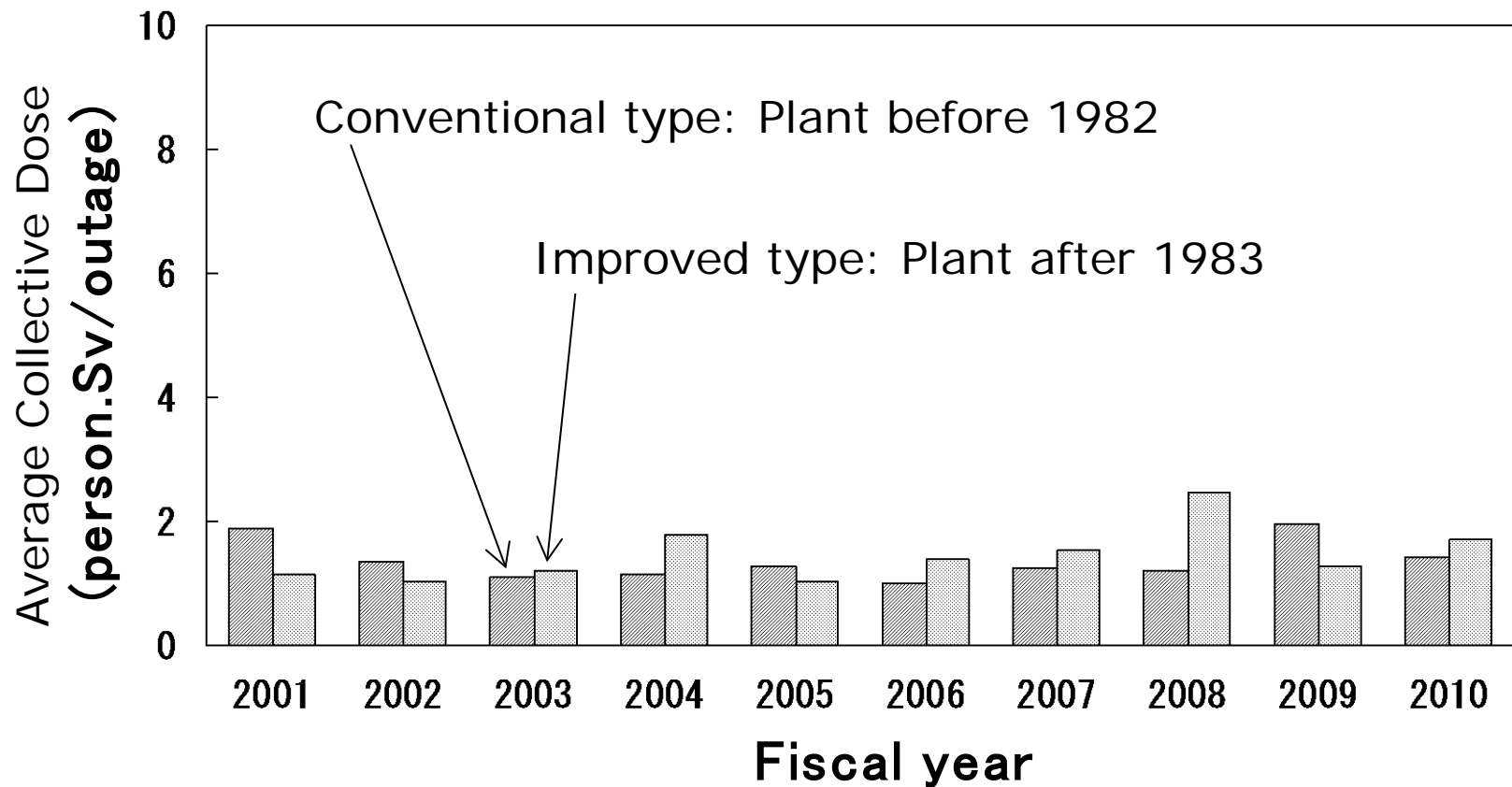
Comparison of outage collective dose between conventional type and improved type (LWR)



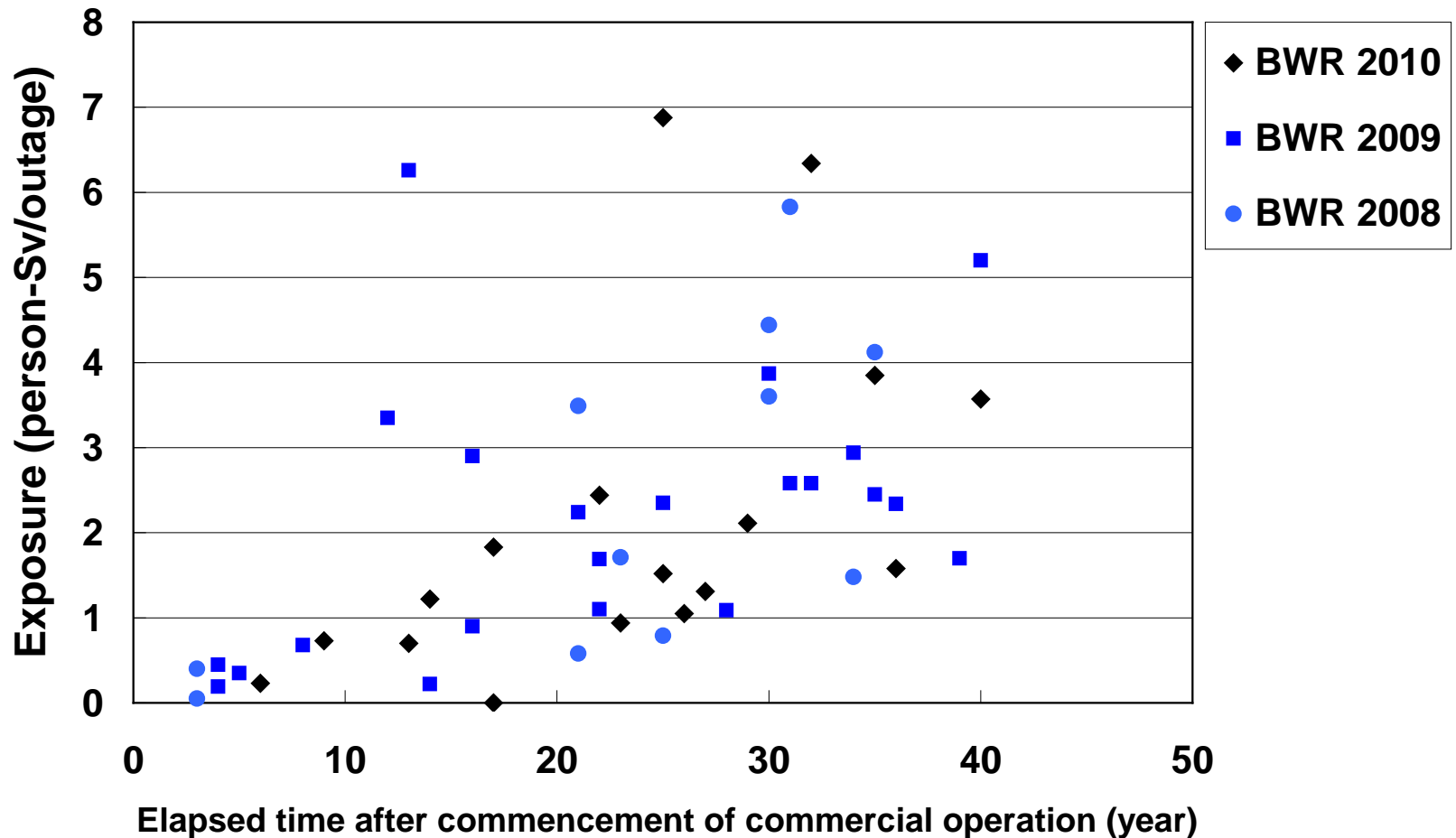
Comparison of outage collective dose between conventional type and improved type (BWR)



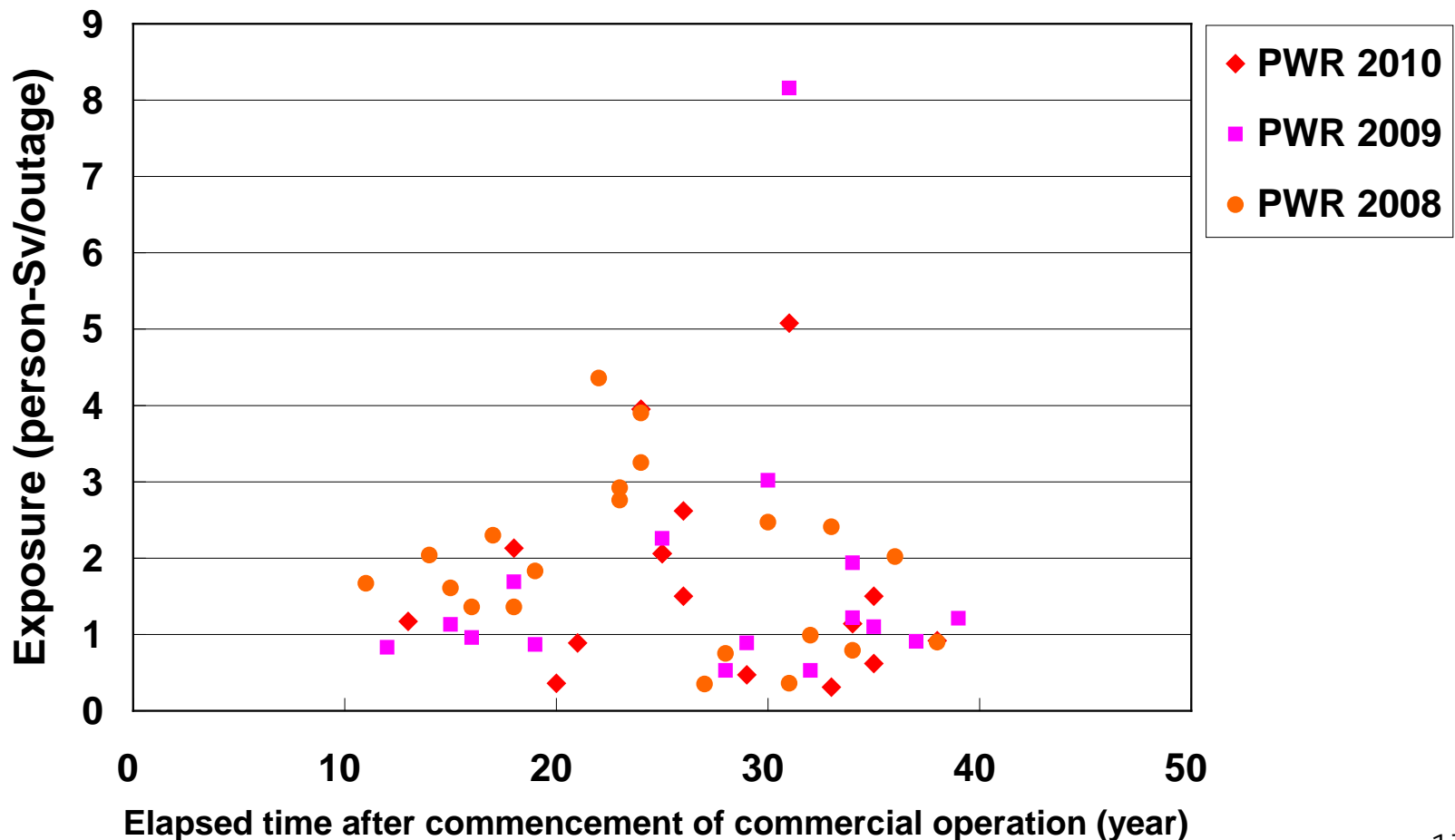
Comparison of outage collective dose between conventional type and improved type (PWR)



Correlation between Elapsed time after commencement of commercial operation and Exposure per outage (Japanese BWR)



Correlation between Elapsed time after commencement of commercial operation and Exposure per outage (Japanese PWR)





*Thank you for your
attention !!*