Sensationalization of Reports of Nuclear Accidents in Japan

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Do they have the same news value?

Kashiwazaki earthquake 2007, Nuclear power plant damaged but all reactors shut down safely and no one killed and no harm to environment

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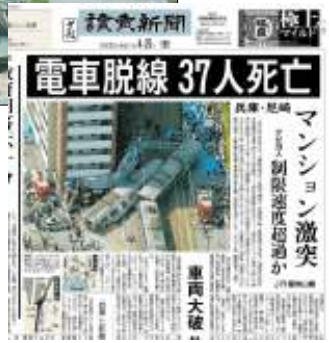

Fukuchiyama derailment 2005, 107 passengers killed

1. Background

The purpose of this study is to clarify whether reports of nuclear accidents - in particular, the damage done by the 2007 Niigata-ken Chuetsu-Oki earthquake to Kashiwazaki-Kariwa nuclear power plant in Niigata, Japan - tend to be exaggerated by Japanese media.

2. Methods

News related to the Kashiwazaki accident was compared with that for 4 other high-profile nuclear accidents in Japan, including the criticality accident that occurred in a nuclear fuel conversion facility JCO in Tokai-mura in 1999 that killed 2 workers and the coolant leak accident in Mihama nuclear power plant in Mihama-cho in 2004 that killed 5 workers. And that was also compared with the train derailment accident of Fukuchiyama Line in Amagasaki-shi in 2005 that killed 107 passengers. Articles were extracted from 4 high quality daily newspapers with a national circulation in Japan, *Asahi*, *Mainichi*, *Yomiuri*, and *Nikkei*, especially focusing on the 30 issues immediately following each accident. The number of times that was reported in front page and the number of times that reported by cover story were counted.

Are 9 slight wounds and 9 death the same?

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"9 injured in the nuclear power plant" *Mainichi*, July 27, 2007

"9 killed in the town" *Mainichi*, July 17, 2007

Accidnt (Year)	INES	Dead	Asahi	Mainichi	Yomiuri	Nikkei
Kashiwazaki Earthquake (2007)	0	0	19	23	16	16
Mihama Coolant Leak (2004)	1	5	4	11	9	9
Tokai JCO Clitilcality (1999)	4	2	21	17	19	12
Tokai Exprosion (1997)	3	0	13	12	13	8
Mihama Pipe Break (1991)	2	0	4	6	3	2
Fukuchiyama Derailment (2005)	–	107	22	23	24	19

Table 1. The number of times that was reported in front page (5 nuclear accidents and 1 derailment accident, 4 Japanese newspapers, 30 issues after accidents)

Accidnt (Year)	INES	Dead	Asahi	Mainichi	Yomiuri	Nikkei
Kashiwazaki Earthquake (2007)	0	0	12	7	4	3
Mihama Coolant Leak (2004)	1	5	3	3	3	3
Tokai JCO Clitilcality (1999)	4	2	11	10	8	5
Tokai Exprosion (1997)	3	0	6	8	4	1
Mihama Pipe Break (1991)	2	0	3	1	1	0
Fukuchiyama Derailment (2005)	–	107	13	16	17	2

Table 2. The number of times that was reported by cover story (5 nuclear accidents and 1 derailment accident, 4 Japanese newspapers, 30 issues after accidents)

3. Results

The Kashiwazaki accident was reported similar to the JCO accident and the Fukuchiyama derailment in some newspapers (Table1, Table2). The JCO accident and the Fukuchiyama derailment were more serious than the Kashiwazaki accident. International Nuclear Event Scale (INES) of the JCO accident was evaluated as level "4" (Accident with local consequences). INES of the Kashiwazaki accident was evaluated as level "0" (No safety significance). The number of dead in the Fukuchiyama derailment was 107. There was no one killed in the Kashiwazaki accident. So the reports of the Kashiwazaki accident were sensationalized to a level similar to these other accidents.

4. Conclusion

The reports of the Kashiwazaki accidents were exaggerated by some Japanese newspapers. An understanding of these circumstances is beneficial for the people to improve public relations and risk communication as well as media literacy regarding nuclear accidents to ensure the mass media report them accurately and responsibly and the public is sufficiently well-informed about accidents.

Was its damage heavier than town?

"5 more trances damaged in the nuclear power plant" *Asahi*, July 21, 2007

"Heavy damages remains in the nuclear power plant" *Yomiuri*, July 22, 2007

Should mass media learn science? Should readers have a media literacy?

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