

Occupational safety conditions and the use of contract workers: evidence from the nuclear power industry in Japan

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Abstract

The purposes of this paper are to show that the appropriate level of safety training might differ according to the terms of their employment (contract vs. direct hire), and to examine whether safety levels may differ among plants which are governed by the same regulations. A review of the regulations of the Japanese nuclear power generation industry is used to derive ordinary imperfect-information models. The models imply that contract workers often have less-than-adequate safety training, and that the use of contract workers enables plants to implement a lower level of safety than that imposed by regulations. In order to examine this hypothesis, we performed a factor analysis of the risk management level in Japanese nuclear plants. The results supported the hypothesis.

Keywords: Nuclear power plant, Risk management, Human error, Contract worker, Asymmetric information, Safety and health education.

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