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The Fukushima Nuclear Event and its Implications for Nuclear Power

MICHAEL GOLAY, Massachusetts Institute of Technology

The combined strong earthquake and super tsunami of 12 March 2011 at the Fukushima nuclear power plant imposed the most severe challenges ever experienced at such a facility. Information regarding the plant response and status remains uncertain, but it is clear that severe damage has been sustained, that the plant staff have responded creatively and that the offsite implications are unlikely to be seriously threatening to the health, if not the prosperity, of the surrounding population. Reexamination of the regulatory constraints of nuclear power will occur worldwide, and some changes are likely; particularly concerning reliance upon active systems for achieving critical safety functions and concerning treatments of used reactor fuel. Whether worldwide expansion of the nuclear power economy will be slowed in the long run is perhaps unlikely and worth discussion.