Abstract for an Invited Paper for the MAR12 Meeting of The American Physical Society

The U.S. nuclear industry following the Fukushima event

STEPHEN KUCZYNSKI, Southerrn Nuclear Operating Co.

The nuclear industry is executing a coordinated, comprehensive and safety focused strategic plan in response to the accident in Japan. This beyond design basis external hazard driven event resulted in loss of core cooling due to a loss of offsite power as a result of the significant earthquake which was followed by a loss of on-site power due to the tsunami. Site response actions were impacted due to difficulty accessing the site. The current US fleet of operating reactors has over the last decades implemented numerous reviews assessing external hazards with post 911 actions being the most current. The industry took immediate actions following the March accident to verify existing capabilities to address events driven from external hazards and is now implementing a "Way Forward" plan that has as a priority the continued safe operation of the existing US fleet while examining both the technical and organizational root causes of the Fukushima Dai-ichi accident. Industry focus is to provide additional defense in depth through a "Flex" approach that adds the most significant safety benefit in the most efficient time frame. From a topical perspective, the industry is in agreement with the tier 1 recommendations from the NRC near term task force report. Southern Nuclear Operating Company operates 6 reactors and is building Vogtle 3&4 which is expected to be granted a COL in the near term. This generation III+ reactor design has passive safety features that would have mitigated an event similar to the Fukushima accident.