

## **Progress Toward Development of an IFE Power Plant Using Z-Pinch Technology\***

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The Z-Pinch Power Plant uses the results from Sandia National Laboratories' Z accelerator in a power plant application to generate energy pulses using inertial confinement fusion. A collaborative project has been initiated by Sandia to investigate the scientific principles of a power generation system using this technology. Research is underway to develop an integrated concept that describes the operational issues of a 1000 MW electrical power plant. Issues under consideration include: 1-20 gigajoule fusion pulse containment, repetitive mechanical connection of heavy hardware, generation of terawatt pulses every 10 seconds, recycling of ten thousand tons of steel, and manufacturing of millions of hohlraums and capsules per year. Additionally, waste generation and disposal issues are being examined. This paper will describe the current concept for the plant and describe the objectives for future research.

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