



U. S. Nuclear Regulatory Commission

Baffle-Former Bolt Issues in Nuclear Power Reactors

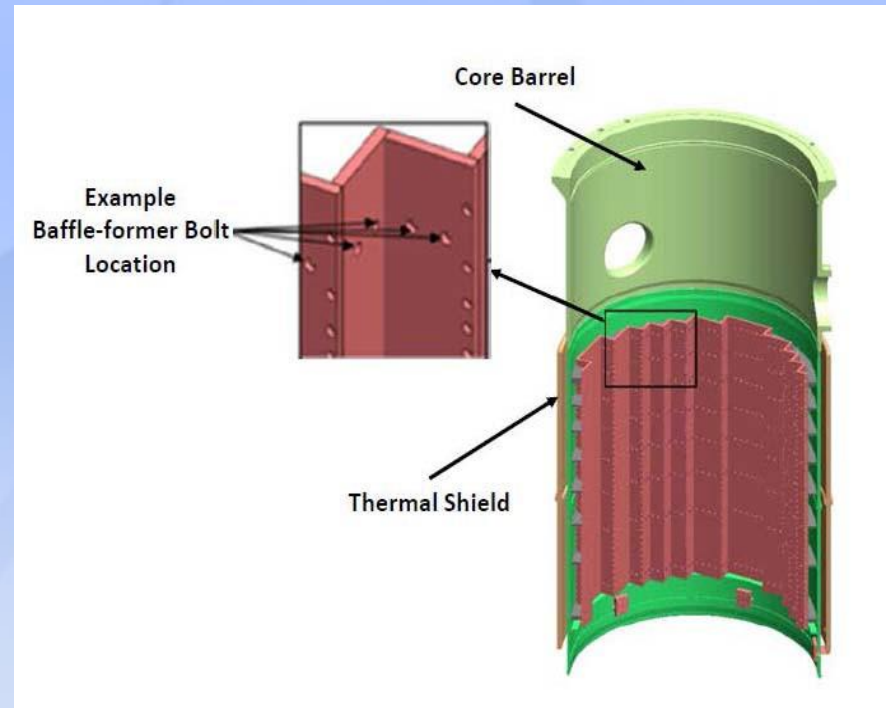
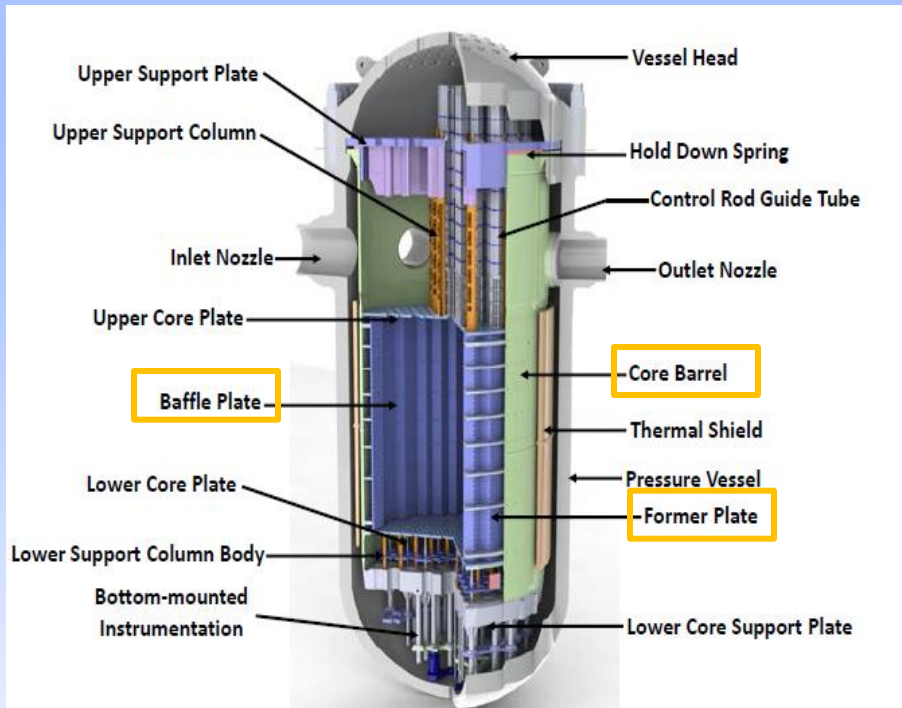
***Bureau of Safety and Environmental Enforcement
Critical Offshore Connector Safety Forum
August 29, 2016***

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NRC Office of Nuclear Reactor Regulation**

Protecting People and the Environment



Baffle-former assembly

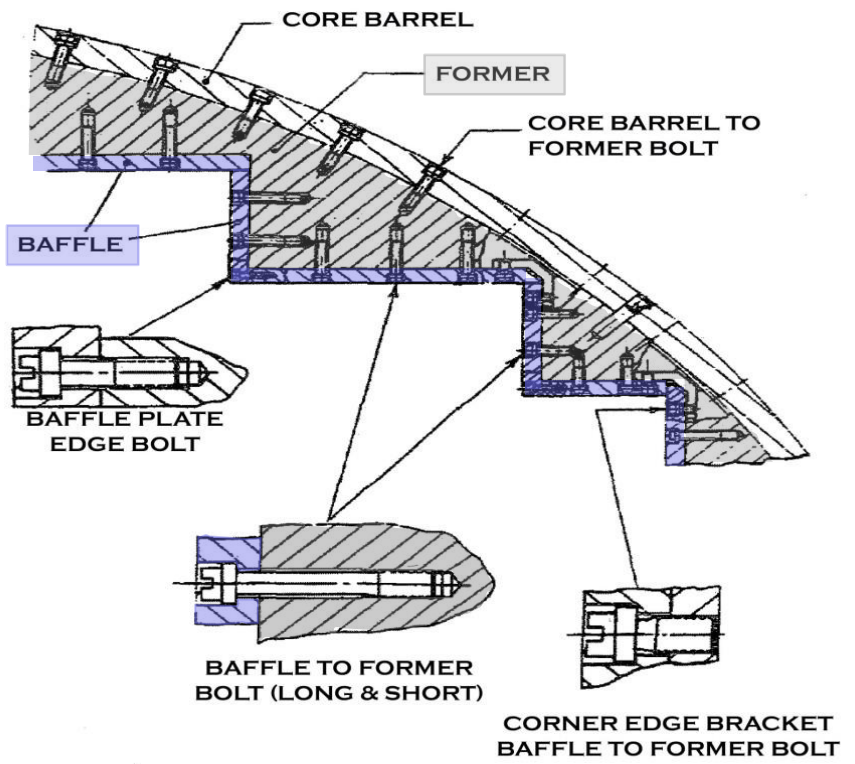


Function of baffle-former assembly is to direct coolant flow through the core. It also provides lateral support to the core during a seismic event or loss-of-coolant accident.



Baffle-former bolt details

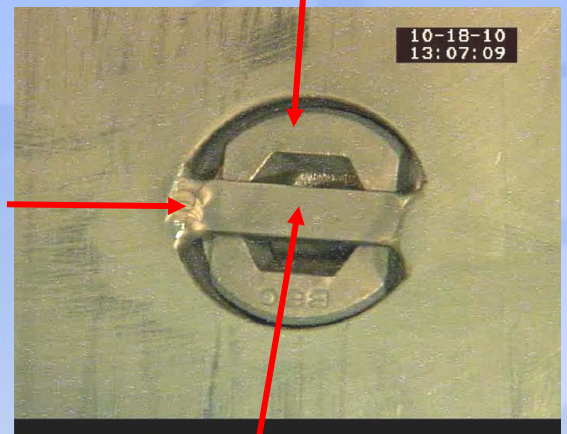
Baffle-Former Assembly Bolts



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Baffle-former bolt head

Tack weld

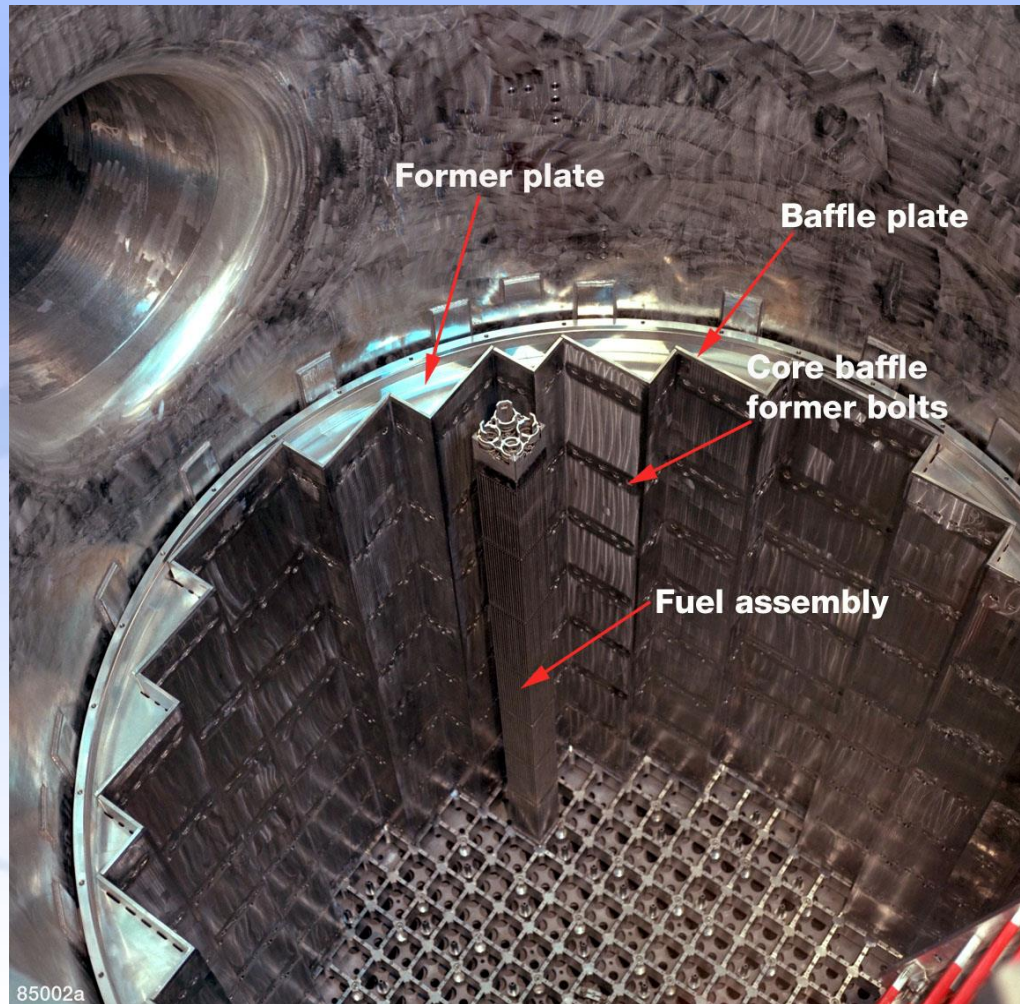


Locking tab

Stainless steel bolts are 5/8" dia. x ~2" long and attach the baffle plates to the former plates to form the baffle assembly



Reactor Internals Arrangement





Visual Indications of Failures



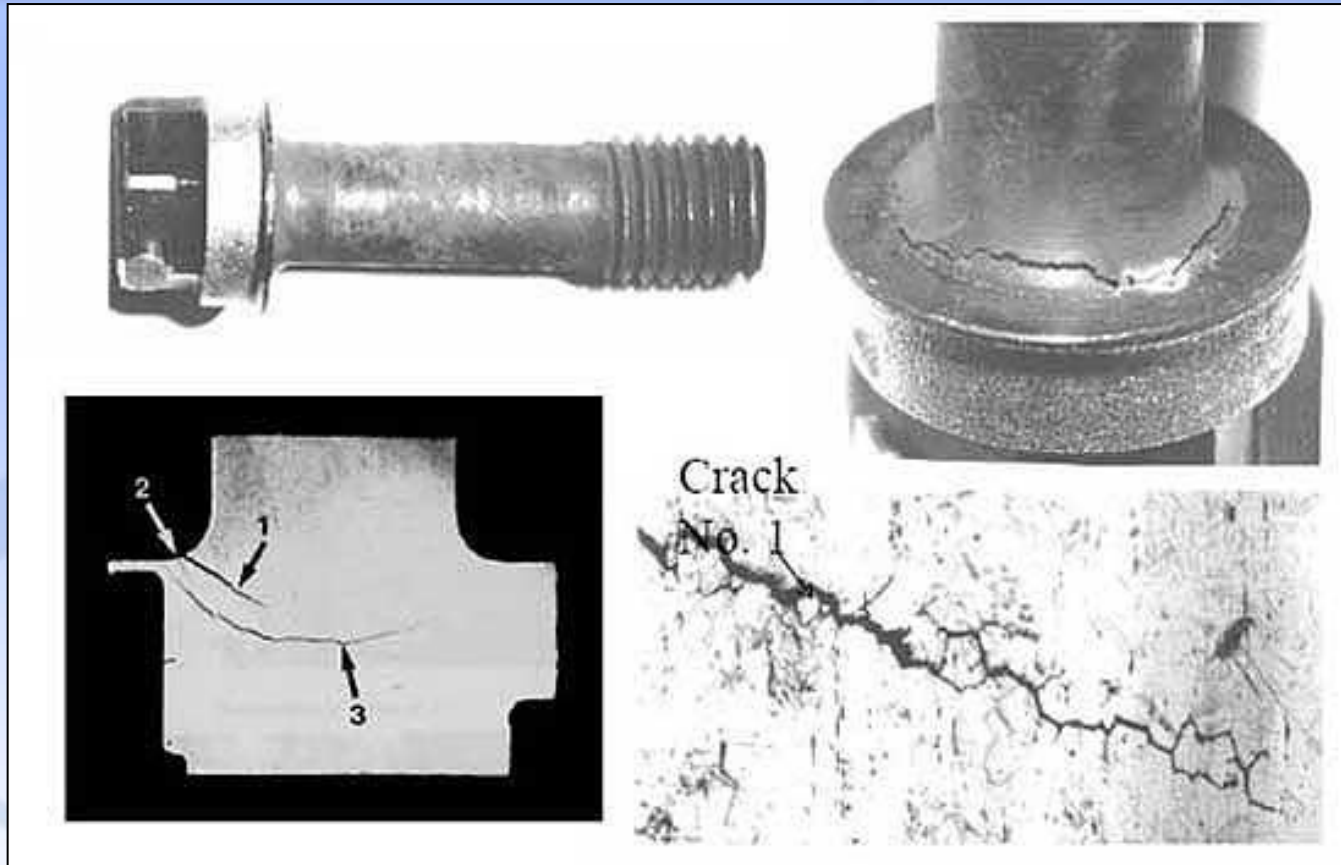
Missing Bolt Head



Protruding Bolt Head



Observed Bolt Cracking



Irradiation Assisted Stress Corrosion Cracking (IASCC)