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## Advanced Reactors

The U.S. Nuclear Regulatory Commission (NRC) has developed its current [regulations](#) on the basis of experience gained over the past 40 years from the design and operation of light water reactor (LWR) facilities. Now, to facilitate the licensing of new reactor designs that differ substantially from the current generation of LWR facilities, the NRC staff seeks to resolve key safety and licensing issues.

Toward that end, NRC policy encourages early discussion (prior to submission of a license application) between agency staff and potential applicants (such as utilities and reactor designers). Such discussions enable the NRC staff to offer licensing guidance and identify and resolve potential licensing issues early in the licensing process. During this pre-application period for design certification, the NRC holds public meetings with potential applicants to discuss advanced reactor designs and identify (1) major safety issues that could require Commission policy guidance to the staff, (2) major technical issues that the staff could resolve under existing NRC regulations and policy, and (3) research needed to resolve identified issues. See the following pages for specific information regarding ongoing pre-application reviews:

Design	Applicant
<a href="#">International Reactor Innovative and Secure (IRIS)</a>	Westinghouse Electric Company
NuScale	NuScale Power Inc.
<a href="#">Pebble Bed Modular Reactor (PBMR)</a>	Exelon Generation Company, LLC PBMR, Pty. LTD
Toshiba 4S	Toshiba

See [Policy Issues Associated with Licensing Non-LWR Designs](#) for related Commission documents, policy statements, and public workshop slides and summaries. In addition, see [Advanced Reactor Research](#) for a discussion of the nine key areas of anticipatory and confirmatory research, which the NRC's [Office of Nuclear Regulatory Research](#) has conducted in support of design certification reviews for advanced reactors.