The NRC’s Reactor Licensing Process Is In Disarray

The NRC’s reactor licensing process (10 CFR 52) is facing its first real test since it was instituted in the early 1990s. So far, it is failing that test.

The process is proving unfair to intervenors, ineffective at uncovering potential safety and environmental problems, and likely will lead to additional and expensive litigation that will cause unanticipated delays in nuclear utility schedules.

The process is supposed to work like this: a utility applies for a Combined Construction and Operating License (COL) for a new reactor. To use the COL option, utilities reference a pre-approved standardized reactor design, which has achieved certification through NRC review of reactor design documents and a rulemaking process.

The problems are: 1) reactor manufacturers are revising designs after certification is completed; 2) utilities are submitting COLs, and the NRC is accepting the applications for hearing, for reactor designs that have not achieved NRC approval.

*The NRC certified the Westinghouse AP 1000 reactor design (which has been cited in applications for 14 new reactors) in January 2006. The design is now on its 17th revision.*

*Areva submitted an application for design certification for its EPR design (so far cited in applications for 4 new reactors) only in December 2007. Certification typically takes 3-4 years.*

*General Electric submitted its ESBWR design for certification in 2005. It is currently in its fifth revision. The NRC does not have a schedule for completion of its review of this design. The ESBWR has been referenced in applications for four reactors.*

When an application is docketed for hearing, intervenors have only 60 days to examine the lengthy applications, and prepare and file any contentions. But when key safety and environmental information is incomplete because the designs themselves are incomplete, it is impossible to determine what issues there may be that should be raised in hearings.

This will lead to a plethora of “late-filed” contentions, which normally are rejected out-of-hand but in these cases will almost certainly have to be heard--extending the licensing process, perhaps by years. Challenges to reactor licenses in the federal courts are nearly certain if justifiably late contentions are rejected and/or safety and environmental information has still not been submitted even by the time of the granting of a license. For the EPR for example, it is estimated that only 70% of the detailed design documentation is expected to be completed by the time Areva expects design certification for the EPR and approval of a COL for the first EPR at Calvert Cliffs, Maryland.

Already groups have filed briefs seeking to delay hearings on the basis of incomplete application (South Texas, successful) and on the basis of incomplete designs for all of the reactor designs noted above (pending).

For more information, contact: Michael Mariotte, Nuclear Information and Resource Service, nirsnet@nirs.org; 301-270-6477