

File



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D.C. 20555-0001

Sept. 1, 2000

MEMORANDUM TO: ACRS Members and Staff
MEMORANDUM #: A.C.-111.2000
FROM: A. W. Cronenberg
SUBJECT: Summary of Duane Arnold Power Uprate Application

On Aug. 31, 2000 I attended a presentation by staff from Alliant Energy, regarding progress on its Request for Power Uprate for the Duane Arnold plant (BWR). The proposed power uprate is 15.3% above the current license value of 1658 MWt (uprate to 1912 MWt), which translates to a total increase of 20-% above the original licensed power of 1593 MWt in 1975, noting a prior uprate of 4.7-%.

Alliant Energy is shooting for the uprate to commence in June-2001, in conjunction with a changeover to GE14 fuel. Two license amendment actions are involved, (a) License Amendment Request for Fuel Reload to GE14 (Submittal, Sept. 2000) and (b) a separate License Amendment Request for Power Uprate (Submittal, Oct. 2000). The staff indicated that they expect to have their review of both requests completed 6 months after formal submittal, i.e. by April-May/200. The staff plans on issuing two separate Safety Evaluation Reports (SER), although it is clear that overlapping fuel issues are involved, being Alliant has never before used GE-14 fuel and its request is for an extended fuel duty to peak burnups of 58GWD/t in conjunction with higher power levels. At this point, ACRS should plan on reviewing the uprate application at its May-2001 meeting.

T. J. Kim, lead staff engineer on power uprates, did alert the Alliant staff of ACRC concerns regarding potential degradation of safety margins for aged plants operated at higher powers. The Alliant staff made comments to the effect that their application is largely based on the GE Generic Guidance for BWR uprates, and wanted to know if their application would be held to a higher standard than the Generic Guidance. Mr. Kim assured them that the staffs' uprate review and SER would remain focused on issues of compliance with current regulations. He did state that any ACRC review may involve a broader probe of issues. He mentioned, ACRC concerns related to potential reductions in safety margin owing to the total/synergistic impact of a number of separate licensing actions (power uprates, fuel life extension, plant aging, relaxation of inspection requirements, other prior burden reductions, etc.).

The anxieties expressed by Alliant, point to a need for early ACRC interaction with the staff to resolve any ACRC concerns regarding the adequacy of current staff uprate review practices. My view is that these issues should be dealt with prior to review of the Duane Arnold request; that is the Duane Arnold application should not be the stage to sort out issues involving the adequacy (or inadequacy) of NRC review procedures. A copy of the slides from the Alliant presentation can be obtained from Paul Boehmert or myself.