

February 25, 2015

MEMORANDUM TO: William M. Dean, Director  
Office of Nuclear Reactor Regulation

THRU: Jennifer L. Uhle, Deputy Director /RA/  
for Reactor Safety Programs  
Office of Nuclear Reactor Regulation

Brian E. Holian, Deputy Director /RA/  
for Engineering and Corporate Support  
Office of Nuclear Reactor Regulation

FROM: Lawrence E. Kokajko, Director /RA/  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

SUBJECT: 10 CFR 50.59; THE PROCESS, APPLICATION TO  
SUBSTANTIAL MODIFICATIONS TO LICENSEE FACILITIES,  
AND NRC STAFF ASSESSMENT OF LICENSEE  
IMPLEMENTATION (TAC NO. ME9805)

The steam generator primary-to-secondary leak at San Onofre Nuclear Generating Station (SONGS) Unit 3 in 2012 generated significant public and congressional interest in the requirements related to facility changes. Many questions focused on how a licensee could substantially modify its facility without obtaining a license amendment (except for technical specification changes), relying instead on the licensee's evaluation pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.59, "Changes, tests, and experiments." The U.S. Nuclear Regulatory Commission (NRC) staff prepared this white paper to describe the 50.59 process and its history, how licensees apply 50.59 criteria, and the relationship between 50.59 and other regulatory requirements.

The assessment provided in this white paper led the NRC staff to conclude licensees continue to correctly apply the 50.59 criteria to changes, tests, and experiments at their facilities. The NRC staff also concluded that applying the 50.59 process to substantial plant modifications, including steam generator replacements, serves the underlying purpose of the 50.59 regulation as described by the Commission in its statements of consideration for the 1999 final rule by establishing a threshold for NRC review of changes that might affect the basis on which the NRC issued a license to operate the facility.

Enclosure:  
White Paper

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301-415-3243

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