

March 27, 2013

MEMORANDUM TO: Chairman Macfarlane  
Commissioner Svinicki  
Commissioner Apostolakis  
Commissioner Magwood  
Commissioner Ostendorff

FROM: Glenn M. Tracy, Director            /RA/  
Office of New Reactors

SUBJECT: STAFF ASSESSMENT OF THE MANUFACTURING LICENSE  
REQUIREMENTS ISSUE FOR SMALL MODULAR REACTORS

The purpose of this memorandum is to inform the Commission of recent activities and staff assessment of the issue of manufacturing license requirements for small modular reactors (SMRs). The U.S. Nuclear Regulatory Commission (NRC) staff first described the issue in SECY-10-0034, "Potential Policy, Licensing, and Key Technical Issues for Small Modular Nuclear Reactor Designs," dated March 28, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML093290268) and categorized the issue as low priority. In addition, the staff noted in SECY-11-0112, "Staff Assessment of Selected Small Modular Reactor Issues Identified in SECY-10-0034," dated August 12, 2011 (ADAMS Accession No. ML110460434) that the NRC was still evaluating this potential issue.

The manufacturing license provision in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 52, Subpart F, "Manufacturing Licenses," allows for a license to be issued that authorizes the manufacture of reactors, including their associated nuclear steam supply system and balance of plant. The license does not, however, authorize the installation of reactors at the sites on which the reactors are to be operated. A construction permit under 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," or combined license under 10 CFR Part 52, "Licenses, Certifications, and Approvals for Nuclear Power Plants," would be required for those activities. The NRC originally added the provision as Appendix M to 10 CFR Part 50 in 1973, under which one application was received. The application from Offshore Power Systems requested approval for the manufacture of reactors at a facility in Florida to be shipped unfueled by barge to a location off New Jersey. The NRC issued the license (ML-1) in 1982, approving the manufacture of eight reactors, none of which were built. Since then, this section of the regulations has not been used by any other applicants.

CONTACT: Wesley W. Held, NRO/DARR  
301-415-1583

In the 1989 rulemaking adopting Part 52, the Commission added Appendix M to Part 52, but did not remove it from Part 50. As part of the 2007 revisions to Part 52, the NRC deleted Appendix M from Part 50, moved the provision to Subpart F of 10 CFR Part 52, and added regulatory requirements governing inspections, tests, analyses and acceptance criteria for manufacturing licenses.

In SECY-10-0034, the NRC staff identified the potential need for issuance of a manufacturing license to support certain business approaches for SMRs, as well as possible jurisdictional issues if “manufacturing” were to take place in a foreign country. Since then, the staff has conducted several activities to determine whether any issues exist that would require Commission consideration or staff actions.

The staff has discussed the topic at several generic topics meetings with the SMR community over the past 2 years. On December 6, 2012, the staff also conducted a topic-specific public outreach meeting with interested external stakeholders, soliciting input on a number of areas of the provision. The staff allowed stakeholders to share their ideas on possible additions, deletions, or changes to the manufacturing license provisions in Part 52. Stakeholders indicated that they did not see a near-term applicant using the manufacturing license and did not envision a need for changes to the existing Subpart F or its removal from Part 52. The meeting summary can be found at ADAMS Accession No. ML13022A091.

The staff has sought information from potential SMR applicants in a series of annual regulatory issue summaries to determine if any potential applicants plan on using the manufacturing license provision. To date, no respondents have indicated that they plan to use the manufacturing license provision in a near-term application, and the staff has not identified the need for a manufacturing license for any of the designs currently being discussed.

Based on the lack of disclosed interest from near-term SMR license applicants to use or revise the provision and the lack of a current policy or technical issue that needs to be resolved, the staff does not plan to use resources to further pursue this matter or to address it in its future updates on the status of the resolution of issues identified in SECY-10-0034. The NRC staff will, however, notify the Commission if policy issues emerge after SMR designs and industry positions on this topic are further developed, or nuclear industry representatives express an interest to engage in detailed discussions on manufacturing licenses.

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