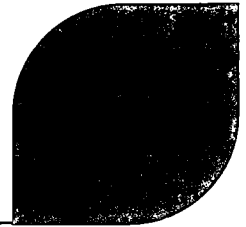


Enclosure:

1. Response to Request for Additional Information – ANP-10334P



Response to Request for Additional Information – ANP-10334P

ANP-10334Q2
Revision 0

Q12™ Structural Material Topical Report

December 2016

AREVA Inc.

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Nature of Changes

Item	Section(s) or Page(s)	Description and Justification
1	All	Initial Issue

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Nomenclature

(If applicable)

Acronym**Definition**

B&W	Babcock and Wilcox
CE	Combustion Engineering
FA	Fuel Assembly
LDL	Lower Design Limit
LTA	Lead Test Assembly
NRC	Nuclear Regulatory Commission
PIE	Post-Irradiation Examination
TR	Topical Report
UDL	Upper Design Limit

Question 3

The TR requests permission for AREVA to deliver batch quantities of assemblies using Q12 structural materials without the prior delivery and post-irradiation examination of lead test assemblies for that particular fuel design. Given the lack of in-reactor experience, a surveillance program is prudent on the lead batch for each application. Please describe the surveillance program (e.g., data collection, model validation, reporting) by which AREVA will ensure that these assemblies continue to behave as described in the topical report.

Response 3

When Q12™ structural materials are introduced in batch quantities to a new design family (defined as Westinghouse, CE, and B&W designed plants) in the U.S. without a prior lead test assembly (LTA) program, a surveillance program for the lead batch of fuel will be implemented. This post-irradiation examination (PIE) program will be focused on evaluation of fuel assembly growth. The surveillance program will be performed on eight (8) fuel assemblies (FAs) in the lead batch. The PIE will include FA visual inspections and FA length measurements and will be conducted following the third cycle of irradiation of the lead batch of fuel.

Follow-on batches of fuel containing Q12™ structural materials in other plants in the design family will be limited to 1 plant within one year of the lead batch being loaded. The purpose of this requirement is to assure that measured data is obtained prior to a large number of fuel assemblies reaching a high exposure.

As PIE data is obtained, it will be compared to the generic FA growth UDL and LDL models to validate the generic FA growth design limits. The results will be communicated to the Nuclear Regulatory Commission (NRC) during AREVA's annual fuel performance meetings.