

RESOLUTION OF COMMENTS BY THE OFFICE OF NUCLEAR REACTOR REGULATION
ON DRAFT SAFETY EVALUATION FOR TOPICAL REPORT ANP-10342P, REVISION 0,
“GAIA FUEL ASSEMBLY MECHANICAL DESIGN”

FRAMATOME, INC.

PROJECT NO. 728/DOCKET NO. 99902041

This attachment provides the U.S. Nuclear Regulatory Commission (NRC) staff’s review and disposition of the comments made by Framatome Inc. (Framatome) on the draft safety evaluation (SE) for Topical Report (TR) ANP-10342P, Revision 0, “GAIA Fuel Assembly Mechanical Design.” Framatome provided the comments by letter dated December 20, 2018 (Agencywide Documents Access and Management System Accession No. ML18360A171). Reference 2 in this attachment refers to Reference 2 of that letter.

Page	Line	Proposed Change/Comment	NRC Resolution of Proposed Change/Comment
1	19-20	Replace “this TR extends the use of the fuel design change process...” with “this TR implements a fuel design change process similar to the one...” ANP-10342P is not dependent upon EMF-92-116.	The NRC staff accepts the proposed change. The change was made accordingly in the final SE.
2	23, 25-28	Replace “This TR extends the use of the fuel design change process...” with “This TR implements a fuel design change process similar to the one...” and delete the second sentence of this paragraph. The GAIA change process is self-contained and does not use methods and criteria from EMF-92-116. The independence from EMF-92-116 is reinforced by the additional information provided in Reference 2 of this letter.	The additional information provided justification of the independence. The NRC staff accepts the proposed change. The change was made accordingly in the final SE.
6	7-9	Framatome proposed a re-wording of the internal pressure criteria in Reference 2 of this letter that is consistent with SRP Section 4.2 and current practice, including the analysis supporting ANP-10342P. The SE should be updated to reflect the markups in Reference 2, which will be included in the approved version of the topical report.	The staff agrees and will confirm the write up in the -A version of the TR.

Page	Line	Proposed Change/Comment	NRC Resolution of Proposed Change/Comment
7 8 9 10	43 34 4, 19 15	Framatome proposed in Reference 2 of this letter to add specific sections in ANP-10342P for the following evaluation areas: overheating of cladding, excessive fuel enthalpy, bursting, cladding embrittlement, violent expulsion of fuel, and fuel rod ballooning. These new sections identify that the criteria are included in NRC-approved methodology topical reports. These criteria are not evaluated as part of the generic topical report but will be evaluated in plant-specific analyses using NRC-approved methods. This SE should be updated to reflect only the information in Reference 2 for these criteria.	Staff acknowledges that the criteria are evaluated outside of this TR. Some changes were made to state this but acceptance criteria for GAIA were added for the use those outside methods as they apply to GAIA.
11	37-38	Framatome interprets Section 3.4 to mean that minor changes require discussion or notification per clarification #3, but this discussion / notification can occur after implementation of the change. Therefore, NRC's stated right to declare that a change is subject to review and approval could occur after implementation of the change. No change to the SE is required.	The design update process evaluation section was completely rewritten for clarity and to establish the notification requirement for minor and major changes.
12	1-2	Framatome understands the request for notification of minor changes. For clarification, Framatome recommends: "Should Framatome decide that the fuel update meetings are no longer going to be held then a report of all the minor mechanical design changes shall be made within a year after first implementation of the change in a GAIA reload." This wording will also remove the obligation to submit an annual report when no changes have been made.	The NRC staff accepts the suggested clarification. The final SE was changed accordingly. L&C reworted.
12	1-2	The requirement to discuss minor changes at the fuel performance meeting or submit a report of changes should be identified in Section 4.0, Limitations and Conditions, because the requirement is not stated in ANP-10342P.	The requirement to discuss changes at fuel performance meeting has been removed. Alternate reporting has placed in SE. L&C reworted

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12	17-20	Limitation and condition #4 can be removed. The use of approved CHF correlations and mixed core methods has been added to ANP-10342P in Reference 2 of this letter.	Framatome provided adequate information to convince the NRC staff that limitation and condition #4 should be removed. The final SE was modified accordingly. There are no additional restrictions on the use of CHF correlations that have approved for the use with GAIA fuel.
12	22-29	Framatome does not object to using a modern control rod ejection methodology. However, because reactivity initiated accidents are outside the scope of ANP-10342P, Framatome believes it is not appropriate to include this limitation here. The implementation provisions in the final Regulatory Guide resulting from DG-1327 will dictate when the guidance should be back fit or forward fit on a licensee.	Discussion of the use of DG-1327 has largely been removed. L&C condition on RIA has been re-written to state that plants LAR to adopt GAIA must include evaluation of RIA including a justifiable acceptance criteria.
12	39-41	The highlighted statement should be deleted. Per LIC-500, additional restrictions to the topical report imposed by the NRC staff should be clearly stated as limitations and conditions. In the absence of specific limitations and conditions, the SE approves use of the topical report as written, including information not explicitly addressed in the SE. If the NRC staff does not agree with this comment, then additional information must be added to the SE.	Statement removed with additional rewording
12	46	This statement can be removed. In Reference 2, Framatome has added a statement to ANP-10342P about each additional criterion in SRP Section 4.2 that is not evaluated generically in the topical report.	Statement has been removed