

NON-CONCURRENCE PROCESS COVER PAGE

The U.S. Nuclear Regulatory Commission (NRC) strives to establish and maintain an environment that encourages all employees to promptly raise concerns and differing views without fear of reprisal and to promote methods for raising concerns that will enhance a strong safety culture and support the agency's mission.

Employees are expected to discuss their views and concerns with their immediate supervisors on a regular, ongoing basis. If informal discussions do not resolve concerns, employees have various mechanisms for expressing and having their concerns and differing views heard and considered by management.

Management Directive, MD 10.158, "NRC Non-Concurrence Process," describes the Non-Concurrence Process (NCP), <http://nrcweb.nrc.gov:8600/policy/directives/catalog/md10.158.pdf>.

The NCP allows employees to document their differing views and concerns early in the decision-making process, have them responded to (if requested), and attach them to proposed documents moving through the management approval chain to support the decision-making process.

NRC Form 757, "Non-Concurrence Process" is used to document the process.

Section A of the form includes the personal opinions, views, and concerns of a non-concurring NRC employee.

Section B of the form includes the personal opinions and views of the non-concurring employee's immediate supervisor.

Section C of the form includes the agency's evaluation of the concerns and the agency's final position and outcome.

NOTE: Content in Sections A and B reflects personal opinions and views and does not represent official factual representation of the issues, nor official rationale for the agency decision. Section C includes the agency's official position on the facts, issues, and rationale for the final decision.

At the end of the process, the non-concurring employee(s):

- ☐ Concurred
- ☒ Continued to non-concur
- ☐ Agreed with some of the changes to the subject document, but continued to non-concur
- ☐ Requested that the process be discontinued

- ☐ The non-concurring employee(s) requested that the record be non-public.
- ☒ The non-concurring employee(s) requested that the record be public.



NON-CONCURRENCE PROCESS

NCP-2014-007

SECTION A - TO BE COMPLETED BY NON-CONCURRING EMPLOYEE

TITLE OF SUBJECT DOCUMENT Next Generation Nuclear Plant - Assessment of Key Licensing Issues		ADAMS ACCESSION NO. ML13220A176
DOCUMENT SIGNER Glenn M. Tracy		SIGNER TELEPHONE NO. (301) 415-1897
TITLE Office Director	ORGANIZATION Office of New Reactors (NRO)	
NAME OF NON-CONCURRING EMPLOYEE(S) Donald E. Carlson, James J. Shea		TELEPHONE NUMBER (301) 415-0109
TITLE Senior Project Managers	ORGANIZATION NRO/DARR/SMRLB2	
<input type="checkbox"/> DOCUMENT AUTHOR <input type="checkbox"/> DOCUMENT CONTRIBUTOR <input type="checkbox"/> DOCUMENT REVIEWER <input checked="" type="checkbox"/> ON CONCURRENCE		
NON-CONCURRING EMPLOYEE'S SUPERVISOR Anna Bradford		
TITLE Branch Chief	ORGANIZATION NRO/DARR/SMRLB2	
<input checked="" type="checkbox"/> I WOULD LIKE MY NON-CONCURRENCE CONSIDERED AND WOULD LIKE A WRITTEN EVALUATION IN SECTION B AND C. <input type="checkbox"/> I WOULD LIKE MY NON-CONCURRENCE CONSIDERED, BUT A WRITTEN EVALUATION IN SECTIONS B AND C IS NOT NECESSARY.		
IF THE PROCESS IS COMPLETE, I WOULD LIKE THE NCP FORM: <input checked="" type="checkbox"/> PUBLIC <input type="checkbox"/> NON-PUBLIC		

REASONS FOR NON-CONCURRENCE AND PROPOSED ALTERNATIVES (use continuation pages or attach Word document)

REASONS FOR NON-CONCURRENCE

This non-concurrence refers back to NCP-2013-015, which is a related non-concurrence concerning NRO/DARR management's earlier rejection of our proposal to add three clarifying paragraphs to Enclosure 1 of the subject NGNP assessment package.

Subsequent to initiating NCP-2013-015, Enclosures 1 and 3 of the subject package were fundamentally rewritten at the request of NRO management. In particular, the rewrites replaced the staff's detailed assessment feedback on DOE's proposed approaches to NGNP licensing basis event (LBE) selection; safety classification of systems, structures, and components (SSC); and approach to defense-in-depth (DID) with a general discussion of ongoing NRC efforts related to Fukushima Near Term Task Force (NTTF) Recommendation 1 and NUREG-2150, "A Risk Management Regulatory Framework." Enclosure 1 has thus shrunk from 28 to 23 pages and the body of Enclosure 3 from 46 to 7 pages.

In the present non-concurrence, we reject these fundamental revisions to Enclosures 1 and 3 in their entirety. As discussed on the continuation page, we believe that these sweeping revisions are neither appropriate nor justified and do not serve the best interests of the public, the NRC, DOE, or prospective modular HTGR applicants.

PROPOSED ALTERNATIVES

Restore Enclosures 1 and 3 to their previous versions and add to Enclosure 1 the three clarifying paragraphs proposed in NCP-2013-15.

DISCUSSION AND RATIONALE - See Continuation of Section A.

SIGNATURE

*Donald E. Carlson**SEC for James J. Shea*

DATE

5-23-14

NON-CONCURRENCE PROCESS

NCP-2014-007

TITLE OF SUBJECT DOCUMENT

Next Generation Nuclear Plant - Assessment of Key Licensing Issues

ADAMS ACCESSION NO.

ML13220A176

CONTINUATION OF SECTION



A



B



C

NON-CONCURRENCE DISCUSSION AND RATIONALE

When NRO management requested the fundamental rewrite of Enclosures 1 and 3, they sought to justify the request by saying that they wanted to avoid "getting out ahead of the Commission" in these areas as they relate to pending NRC activities related to NTTF Recommendation 1 and the Risk Management Regulatory Framework (RMRF) outlined in NUREG-2150. Per the Commission's 5/19/14 SRM to SECY-13-0132 on NTTF Recommendation 1, the RMRF activities may include, as appropriate, a reevaluation of the objectives of the staff-recommended Improvement Activities 1 and 2, as written in SECY-13-0132.

We note that the original versions of Enclosures 1 and 3 of the NGNP assessment package already included adequate caveats that referred in general to potential needs for Commission policy guidance and specifically to potential linkages with conceptually similar issues to be considered in the contexts of NTTF Recommendation 1 and NUREG-2150. We see the newly expanded discussions of NUREG-2150 and NTTF Recommendation 1 to be potentially acceptable as optional additions to Enclosures 1 and 3 but not as replacements for the division-level concurred and ACRS-approved staff feedback contained in the previous versions.

The rationale for our non-concurrence on the rewrite is therefore twofold:

(1) We disagree that any RMRF (NUREG-2150) activities related to the objectives of NTTF Recommendation 1 should have significant bearing on modular HTGR licensing. Because Recommendation 1 explicitly focuses on large LWRs, any RMRF work to reevaluate or pursue the SRM-specified objectives of NTTF Recommendation 1 will appropriately incorporate LWR safety paradigms that do not apply to modular HTGRs. This view reflects our current understanding of the defining safety features of modular HTGRs, as exemplified by the conceptual designs considered for NGNP and also by the MHTGR preliminary design that the NRC staff reviewed in the late 1980s and early 1990s and evaluated in NUREG-1338. In particular, we note that prospective applicants intend to show that their proposed modular HTGR designs can preclude extensive core damage of the kind that occurs rapidly in all LWR accidents that uncover the core. Even in extreme bounding accidents far beyond the design basis, future applicants intend to show that any resulting core degradation in modular HTGRs would be very limited and incremental and evolve extremely slowly in relation to the extensive and rapid core damage that can occur in today's LWRs in accidents only moderately beyond the design basis. Applicants will further try to demonstrate that the severe accident behavior of modular HTGRs inherently lacks anything resembling the cascading "cliff edge" effects of core damage, vessel failure, and containment breach that appear in LWR severe accidents. We also note that, since the mid-1980s, the developers of modular HTGR have been proactive in proposing sets of licensing basis events and requirements that extend well beyond the design basis. Therefore, any new LWR regulatory considerations of design-basis extension requirements stemming from the reevaluated objectives of NTTF Recommendation 1 are likely to be generally consistent with, and amply addressed by, the approaches long proposed by modular HTGR developers.

(2) We also disagree that any pending or new RMRF efforts to establish technology-neutral or technology-specific frameworks for advanced reactors can or should fundamentally alter our current assessment feedback on the LBE selection, SSC safety classification, and DID approaches proposed for NGNP. In fact, NUREG-2150 includes in its appendices a copy of the frequency-consequence (F-C) curve proposed for NGNP. It can thus be expected that any future frameworks for advanced reactors that build upon concepts outlined in NUREG-2150 and NUREG-1860 will remain largely consistent with most of our feedback on the conceptually similar technology-specific licensing framework proposed for NGNP. We note in particular that the F-C curve proposed for NGNP aligns favorably with the ACRS view that the technology-neutral F-C curve proposed in NUREG-1860 is overly restrictive at the higher event frequency ranges (i.e., for normal operations and AOOs). In any case, the potential for eventual inconsistencies has already been adequately noted in the various caveats provided in the previous versions of Enclosures 1 and 3.

EXPLANATORY NOTE ON NON-CONCURRENCE DATES:

As shown on the transmittal letter's concurrence block, we first indicated this non-concurrence on 4/21/14. However, per the NCP process, this NCP form could not be submitted before formally starting the re-concurrence process for the revised staff documents. The recent completion of Section C of the earlier NCP-2013-015 was determined to be a pre-condition for starting re-concurrence. Its schedule was then further impacted by the need to update the rewrites to reflect the 5/19/14 SRM to SECY-13-0132.

NON-CONCURRENCE PROCESS

NCP-2014-007

ACTION B - TO BE COMPLETED BY NON-CONCURRING EMPLOYEE'S SUPERVISOR

TITLE OF SUBJECT DOCUMENT

Next Generation Nuclear Plant - Assessment of Key Licensing Issues

ADAMS ACCESSION NO.

ML13220A176

NAME

Anna Bradford

TITLE

Branch Chief

TELEPHONE NUMBER

301-415-1560

ORGANIZATION

NRO/DARR/SMELB2

COMMENTS FOR THE NCP REVIEWER TO CONSIDER (use continuation pages or attach Word document)

See attachment.

SIGNATURE

Anna Bradford

DATE

5/29/14

Section BComments for the NCP Reviewer to Consider

Over the last several years, the staff has performed excellent work and produced comprehensive documents during their assessment of the Department of Energy's (DOE) Next Generation Nuclear Plant white papers. I appreciate the technical expertise provided by the staff on this project and I think that any dissatisfaction over substantive revisions of the documents, implemented late in the concurrence process, is understandable. However, I do not agree with the non-concurring staff that agency-wide activities currently underway related to Fukushima and the Risk Management Regulatory Framework should not affect the agency's positions on the specific technical areas that have been revised in these documents. Although the non-concurring staff is correct that the language in the original documents already contained related caveats, it is senior management's prerogative to decide that those caveats were not sufficient and that substantive revisions were needed instead.

Additionally, I do not agree that certain of the non-concurring staff's statements provide adequate bases for affecting the revisions. For example, the non-concurrence states that "...prospective applicants intend to show that their proposed modular HTGR designs can preclude extensive core damage..." and "...developers of modular HTGR have been proactive in proposing sets of licensing basis events and requirements that extend well beyond the design basis." DOE has not decided on a final design for the NGNP, there is no HTGR license application currently in front of the NRC, and it is unlikely that there will be any HTGR application for several years to come. Therefore, these statements are speculative and the possibility that some unidentified future applicants "intend" to do something several years in the future is, in my mind, not persuasive in the context of deciding whether current NRC approaches are or will be applicable.

Lastly, I note that if DOE or a member of the public would like to see the direction that the staff was headed with respect to these technical areas prior to the documents being recently revised, the assessments that were transmitted to DOE in February 2012 and those that were transmitted to the Advisory Committee on Reactor Safeguards in March 2013 are publicly available in ADAMS; in other words, all of that work has not been lost.

NON-CONCURRENCE PROCESS

NCP-2014-007

SECTION C - TO BE COMPLETED BY NCP COORDINATOR

TITLE OF SUBJECT DOCUMENT

Next Generation Nuclear Plant - Assessment of Key Licensing Issues

ADAMS ACCESSION NO.

ML13220A176

NAME

Anna Bradford

TITLE

Branch Chief

TELEPHONE NUMBER

301-415-1560

ORGANIZATION

NRO/DARR/SMRLB2

AGREED UPON SUMMARY OF ISSUES (use continuation pages or attach Word document)

See attachment.

EVALUATION OF NON-CONCURRENCE AND RATIONALE FOR DECISION (use continuation pages or attach Word document)

See attachment.

TYPED NAME OF NCP COORDINATOR

Anna Bradford

TITLE

Branch Chief

ORGANIZATION

NRO/DARR/SMRLB2

SIGNATURE--NCP COORDINATOR

Anna Bradford

DATE

5/29/14

TYPED NAME OF NCP APPROVER

Gary Holahan

TITLE

Deputy Director

ORGANIZATION

NRO

SIGNATURE--NCP APPROVER

SM Holahan

DATE

7/23/14

Section C

Summary of Issues

- The original documents already contained adequate caveats regarding potential future changes to NRC approaches related to NTTF Recommendation 1 and RMRF task force activities.
- Any changes resulting from NTTF Recommendation 1 or the RMRF are unlikely to have significant bearing on NGNP because its design is very different from LWRs, and HTGRs would not experience the same types of accidents as LWRs.

Actions Taken to Address Non-Concurrence

NRO management discussed the issues raised in the non-concurrence several times with the staff. However, management continues to believe that the changes to the documents are appropriate given other fundamental activities being conducted in the agency and therefore no changes to the documents were made as a result of this non-concurrence.