**From:** Sebrosky, Joseph

Sent: Thursday, August 20, 2020 9:01 AM

To: Afzali, Amir

**Cc:** steve.nesbit@Imnt-consulting.com; francis Akstulewicz; Cyril Draffin;

AUSTGEN, Kati; mrn@nei.org; 'Tom King'; Thomas Hicks; Wayne L. Moe; Jim C. Kinsey Jr; Reckley, William; Oesterle, Eric; Uribe, Juan; Khan, Maryam; Van

Wert, Christopher; Segala, John

**Subject:** NRC Staff Feedback on Industry-Developed Fundamental Safety Function

Mapping Report

To: Amir Afzali
Southern Company Services
Licensing and Policy Director – Next Generation Reactors

Mr. Afzali,

The purpose of this email is to provide you the Nuclear Regulatory Commission (NRC) staff's feedback on the Industry-developed report titled, "Mapping Regulatory Requirements to Fundamental Safety Functions." The development of the report was discussed during the July 30, 2020, technology inclusive content of application project public meeting and the report is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML20219A650.

The staff generally agrees that those NRC regulations that define technical requirements can be mapped or correlated to one or more of the fundamental safety functions as defined in the report. The staff is electing to not offer specific feedback on the results shown for various regulations in Table 1, "Results of Mapping Regulations to Fundamental Safety Functions," or the assessment of the General Design Criteria and related safety classification of structures, systems, and components (SSCs) in Section 5.0, "Binning Principal Design Criteria to "What," "When," "How," and "How Well" Categories." We are therefore not in a position to endorse those parts of the report and would caution against using the specific evaluations for any purpose other than as a high-level exercise supporting the report. However, the overall conclusions align with the staff's expectations that the NRC's existing regulations for lightwater reactors ensure that the fundamental safety functions are fulfilled. As described in the report, the regulations provide that assurance by defining various high-level performance requirements as well as prescriptive requirements for some SSCs and related programmatic controls. The staff is comfortable with an approach based on developing an affirmative safety case based on the fundamental safety functions and other elements of Revision 1 of NEI 18-04, "Risk-Informed Performance-Based Guidance for Non-Light Water Reactor Licensing Basis Development."

Please let me know if you have any questions regarding the NRC staff's feedback on the subject report.

Sincerely,

Joe Sebrosky
Senior Project Manager
Advanced Reactor Policy Branch
Office of Nuclear Reactor Regulation
301-415-1132

Hearing Identifier: NRR\_DRMA

Email Number: 739

Mail Envelope Properties (DM6PR09MB512557C16EBC683ACBEC1B02F85A0)

**Subject:** NRC Staff Feedback on Industry-Developed Fundamental Safety Function

Mapping Report

 Sent Date:
 8/20/2020 9:01:22 AM

 Received Date:
 8/20/2020 9:01:22 AM

 From:
 Sebrosky, Joseph

Created By: Joseph.Sebrosky@nrc.gov

## Recipients:

"steve.nesbit@lmnt-consulting.com" <steve.nesbit@lmnt-consulting.com>

Tracking Status: None

"francis Akstulewicz" <frank.atozreactorconsulting@gmail.com>

Tracking Status: None

"Cyril Draffin" < cyril.draffin@usnic.org>

Tracking Status: None

"AUSTGEN, Kati" < kra@nei.org>

Tracking Status: None

"mrn@nei.org" <mrn@nei.org>

Tracking Status: None

"'Tom King'" <thomasking2993@gmail.com>

Tracking Status: None

"Thomas Hicks" <hickste@earthlink.net>

Tracking Status: None

"Wayne L. Moe" <wayne.moe@inl.gov>

Tracking Status: None

"Jim C. Kinsey Jr" <jim.kinsey@inl.gov>

Tracking Status: None

"Reckley, William" < William. Reckley@nrc.gov>

Tracking Status: None

"Oesterle, Eric" < Eric. Oesterle@nrc.gov>

Tracking Status: None

"Uribe, Juan" <Juan.Uribe@nrc.gov>

Tracking Status: None

"Khan, Maryam" < Maryam.Khan@nrc.gov>

Tracking Status: None

"Van Wert, Christopher" < Christopher. Van Wert@nrc.gov>

Tracking Status: None

"Segala, John" < John.Segala@nrc.gov>

Tracking Status: None

"Afzali, Amir" <AAFZALI@southernco.com>

Tracking Status: None

Post Office: DM6PR09MB5125.namprd09.prod.outlook.com

Files Size Date & Time

MESSAGE 2341 8/20/2020 9:01:22 AM

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