

Rulemaking Comments

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Subject: Comments to Docket ID NRC-2011-0299; 10 CFR Part 50, Station Blackout; ANPR
Attachments: 05042012 MNES Comment SBO ANPR.pdf

Secretary,
U.S. Nuclear Regulatory Commission

Subject: Docket ID NRC-2011-0299; 10 CFR Part 50, Station Blackout; Advance Notice of Proposed Rulemaking (77 Fed. Reg. 16175)

Dear Sir:

Attached is the comments by Mitsubishi Nuclear Energy Systems, Inc (MNES) to 10 CFR Part 50, Station Blackout; Advance Notice of Proposed Rulemaking (Docket ID NRC-2011-0299).

DOCKETED
USNRC

May 7, 2012 (9:23 am)

Takashi Yamaguchi,
On behalf of (Mr.) Yoshiki Ogata, MNES

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

Best regards,

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Template = SECY-067

Comments to Advance Notice of Proposed Rulemaking on Station Blackout
(Docket ID: NRC-2011-0299)

B. Rulemaking Scope

NRC Inquiry B.1

1. Recognizing the uncertainties associated with natural phenomena and in the context of establishing a set of events upon which to base reference bounds for design, should SBO equipment be designed to withstand natural phenomena which the facility is not already designed to withstand, and should SBO mitigation strategies consider such natural phenomena? What severity of natural phenomena should be considered (e.g., length of return period or duration of the phenomena)? For example, flooding risks are of concern due to a "cliff-edge" effect, in that the safety consequences of a flooding event may increase sharply with only a small increase in the flooding level.

Therefore, to address uncertainties for SBO events and to build in additional defense-in-depth margin to mitigate SBO for such events, should analysis of an SBO consider a flood elevation at some prescribed level above the level for which the plant is designed? If so, what criteria should be used to establish the prescribed level? What is the basis for your position?

MNES Comments B.1

1) General Comments

Even though we need to consider the lessons learned from Fukushima-Daiichi, SBO should be still defined as loss of all EPS (Emergency Power Sources) at LOOP (Loss of Offsite Power). It has been learned that the probability of loss of all EPSs would significantly increase in the case of earthquake and large flooding. So, severity of natural phenomena in the new SBO rule should be probabilistically determined, not by deterministically.

2) Comments to Specific Questions

- a. Should SBO equipment be designed to withstand natural phenomena which the facility is not already designed to withstand?

Fukushima illustrated the significance of unlikely but high consequence events. Natural phenomena and other external hazards fall into three general categories: 1) those which are slow moving and predictable or can be forecasted; 2) those which can be reasonably bounded by existing design requirements and margins; and 3) those which develop quickly are subject to "threshold" levels below which consequences are minimal and above which consequences can be significant. The first category of events can be addressed by reasonable compensatory measures (including placing the plant in a safe condition) prior to the onset of the phenomena. Extreme durations of high temperatures (including UHS temperatures) and hurricane force winds are examples of these conditions. Experience shows that existing measures, including contingency plans and pre-staging of support material and equipment are adequate. The second category includes external events such as extraterrestrial phenomena (meteors, satellites), which can reasonably be assumed bounded by aircraft impact analyses. It is the third category of conditions (those which can develop quickly and which are subject to threshold effects) that should be addressed. There is nothing inherently unique to a loss of AC power that can't be applied to similar essential plant support systems such as DC power and the availability of the UHS. Since the combination of factors influencing these conditions are unique to each plant, each should perform and periodically update an analysis similar to IPEEE (NUREG 1407) and develop coping strategies to ensure availability of services subject to loss due these phenomena.

- b. Should SBO mitigation strategies consider such natural phenomena?
As stated above, an IPEEE should determine which external events can result in loss of essential functions and what those functions are.
- c. What severity of natural phenomena should be considered?
Instead of establishing a proscriptive severity level, an analysis to determine those external events subject to threshold effects should be performed. Then coping strategies can be developed to those functions challenged by those phenomena subject to threshold effects
- d. If so, what criteria should be used to establish the prescribed level?
Since each site is different, a general requirement of reasonable assurance should be adopted. What constitutes reasonable would be site specific. For example, a site in central Texas might need to consider the possibility of flash flooding but would not be subject to a flood level consistent with a tsunami.
- e. What is the basis for your position?
The guidelines and criteria of NUREG 1407, supplemented by the experience of Fukushima

NRC Inquiry B.2

- 2. If such an analysis (per the above question) is warranted, what margin in addition to that included in the reference bounds for design should be considered? For existing facilities, should such an analysis include factors such as the existence of nearby dams or water sources?

MNES Comment B.2

As discussed above, an analysis for particular phenomena subject to threshold effects can be performed but the acceptance criterion for additional protective measures should be reasonable assurance and not proscriptive additions to design basis margins.

NRC Inquiry B.3

- 3. For events that do not fall within the reference bounds for design, but may result in SBO conditions, it may be necessary for licensees to take early action in order to increase the potential for successful mitigation. Recognizing that there are several actions that take time during such events that include, but are not limited to (1) the need to properly identify and diagnose the event or situation, (2) the need to make the decision to implement actions or strategies to mitigate existing or imminent SBO conditions, and (3) the time for licensees to implement the strategies once the decision is made; what time constraints do stakeholders understand to be important in developing SBO mitigation requirements? For example, what should be the coping time with no mitigation for SBO conditions given time constraints that include the time to (1) identify and determine the need to take mitigative actions and (2) implement these strategies under worst case conditions? How long should mitigation strategies be expected to be deployed before the receipt of offsite assistance? If certain mitigation actions must be taken early in the event to avert core damage, how should those actions be determined and how should the time when they must be performed be determined?

MNES Comments B.3

Time constraints will strongly depend upon the site specific analysis, which will depend on the generic and site specific design features of the particular technology under evaluation. For example, recovery of RCP seal cooling water will be driven by the particular seal design used at the facility under evaluation. Since the exact nature of the initiating event cannot be determined, the time required for recognition, diagnosis, and implementation of mitigative actions cannot be determined with accuracy. However when we talk about initial response under such circumstances, it can take two hours to recognize plant status, organize a response, and implement actions. The initial coping may be divided into two phases.

Phase 1: Identification of Plant Status (1 hour): we believe that one hour is enough to identify the event and to try to recover such event. Generally, this should be achieved as the same way as design basis events as SGTR. In the case of SBO, the operators easily can understand that is SBO situation, because of no ac electricity. So, the time for diagnosis would be within 10 minutes. But, initially, operators would try to recover from SBO condition, for example, restarting Emergency Power Sources (EPS) or restore offsite power. We need to allow them to do such recovering action from SBO within one hour. This means that "(1) For identifying and determining the need to take mitigative actions, 1 hour should be applied".

Phase 2: Initiation of minimum action to keep core cooling: If one hour passed, operators should give up several actions to recover EPS or off-site power and should concentrate on keeping reactor core cooling. These actions will include the several actions such as "shedding unnecessary DC load", or "restoring AAC", so on. For implementing these strategies under worst case conditions, additional 1 hour should be applied.

After the Phase 2, Phase 3, when coping with facilities within the site and limited support from off-site, and Phase 4, when support from off-site support center is totally replied upon, may follow but the timing should be decided site-by-site basis.

NRC Inquiry B.4

4. Similar to question B.2, but from a broader perspective of establishing all the new SBO mitigation requirements: Different regions of the United States have different natural phenomena that are more significant in terms of potentially creating SBO conditions. Should the NRC construct a new regulatory framework containing criteria that enable licensees to establish the set of natural phenomena of concern for their sites? If so, what criteria should be used to determine whether an event needs to be considered at a particular site? Please provide the basis for your position.

MNES Comment B.4

The NRC should construct a regulatory framework that is not specific to the natural phenomena that causes the extended loss of ac power. The regulatory framework should define a specific set of conditions that define the extended loss of ac power condition for which each unit needs to cope until additional off-site resources can be obtained to move to plant recovery.

Especially rule that identifies basis of selecting natural phenomena such as expected frequency should be enacted in the rules.

NRC Inquiry B.5

5. The current requirements in 10 CFR 50.63 for SBO are “unit-specific,” meaning that the total loss of all ac is not assumed to extend to all the power reactors at a given site. Based on the lessons learned from the Fukushima Dai-ichi event, the NRC believes the SBO requirements may need to be expanded to consider an SBO for the entire site (i.e., assume the SBO condition occurs to all the units for multi-unit sites). What are stakeholder views on this matter, and how should it be addressed in the new SBO rule? Please provide the basis for your position.

MNES Comment B.5

The current SBO rule contained in 10 CFR 50.63 has been effective at mitigating the risk associated with a loss of offsite power and the common mode failure of the emergency diesel generators at a single nuclear power plant. This rule should be retained as is and a separate rule should be developed to address an extended loss of ac power simultaneously to all units at a site.

NRC Inquiry B.6

6. The current provisions in 10 CFR 50.63 require a facility to withstand, for a specified duration, and recover from an SBO as defined in 10 CFR 50.2. Should the new SBO rule require long term cooling and water makeup to SFPs during an SBO? Please provide the basis for your position.

MNES Comment B.6

The new rule should not require long-term cooling and water makeup to the SFP. Experience (including Fukushima) shows there is significant margin for cooling of spent fuel pools. Time to boil ranges from many hours to many days (if ever) depending on the time since the last offload. Additionally, boiling alone will not result in damage to the fuel stored in a SFP nor will it result in releases. Thus there is more than sufficient time to restore cooling or implement compensatory measures. NRC and industry initiatives already provide additional measures for cooling and makeup should a problem develop with a SFP during an extended loss of power. These measures can be implemented in conjunction with any required by the event. New reactor designs are currently required to include these measures as an integrated part of the design.

NRC Inquiry B.7

7. Should the SBO rule address how external events would affect the “specific duration” of the SBO and the associated coping time?

MNES Comment B.7

No. The issues raised by this question are currently being addressed as part of the implementation of the orders associated with NTF Recommendation 4.2. Any rulemaking pursued should reflect and be consistent with these activities.

NRC Inquiry B.7.a

- a. Should the NRC require consideration of the likelihood of external events that fall outside the bounding events selected for design purposes in the determination of SBO specified duration, or the capability to cope with an SBO for the specified duration, or both? If so, what should the rule require? What is the basis for your B7 position?

MNES Comment B.7.a

As described above, each facility should perform an updated IPEEE, identify those external events subject to threshold effects, and develop mitigating strategies based on the characteristics of the site and plant specific design features and vulnerabilities. The strategies developed should conform to a performance standard of reasonable assurance rather than a proscriptive duration period as the intent is to develop contingencies for highly infrequent and unpredictable events.

NRC Inquiry B.7.b

- b. Should the NRC require consideration of additional margin in the probability or magnitude (or both) of bounding events selected for design purposes with respect to natural phenomena (e.g., design basis external flood plus 10 additional feet or extending the ability to withstand the total loss of ac power for longer durations) in the determination of SBO specified duration or the capability to cope with an SBO during the specified duration, or both? Provide any proposed rule provisions and a discussion that supports your position.

MNES Comment B.7.b

No. Rules should not request any margin. If additional margin is to be required, it should be built-in allowable value by NRC.

NRC Inquiry B.7.c

- c. Should the SBO rule require applicants and licensees to address a more challenging condition such as the total loss of all ac, including ac from the dc batteries through inverters? Please provide the basis for your position.

MNES Comment B.7.c

The rule should address a plant specific evaluation of external events subject to threshold effects and development of mitigative strategies to cope with the effects.

C. Rulemaking Objectives/Success Criteria

NRC Inquiry C.1.a

The NRC is considering whether enhancements to current SBO requirements are advisable in order to consider natural phenomena beyond the plant-specific events selected as bounding for design purposes, even if the plant's design basis meets the NRC requirements and guidance for natural phenomena that are applicable to new plant applications. The NRC would like stakeholder views on specific regulatory objectives and success criteria for the potential rulemaking, as follows:

1. What specific objectives should the SBO rule be designed to achieve?
 - a. For example, should the objective of the SBO rule be to significantly reduce the frequency of core damage from a prolonged SBO, or would it be better to focus on the reduction of the frequency of large early release of radiation for low probability external events that result in SBO conditions? Please provide the basis for your position.

MNES Comment C.1.a

The objective of the proposed rule should be to reduce the frequency of core damage by increasing defense-in-depth since this maintains the fuel in a known coolable geometry.

NRC Inquiry C.1.b

- b. Alternatively, should the SBO rule be designed to achieve a more qualitative safety objective such as increasing, as a defense-in-depth measure, requirements for the mitigating strategies to cope with prolonged SBO conditions stemming from events that do not fall within the reference bounds for the design, assuming GDC 2 (or the corresponding PDC) is satisfied? Please provide the basis for your position.

MNES Comment C.1.b

The objective of the rule should be to identify and develop mitigative strategies for the most damaging external events. Since such events, by their very nature, are inherently unquantifiable, the acceptance criteria should be qualitative vs. quantitative.

NRC Inquiry C.1.c

- c. Should the SBO rule provide increased assurance that the facility can achieve and maintain a safe shutdown condition under SBO conditions for a set of initiating events that lead to SBO conditions, and as one way of doing this, enable licensees to use a criterion for determining the set of conditions that apply to their plants or sites? Please provide the basis for your position.

MNES Comment C.1.c

Yes. The SBO rule should enable licensees to use a standard set of initial conditions from which to develop their mitigation strategies.

NRC Inquiry C.1.d

- d. Should the NRC adopt an SBO rule that is more performance-based and which would not specify the events that must be considered in determining the SBO duration or the capability for coping with an SBO of specified duration? Specifically should the NRC structure an SBO rule as follows:
- (1) Require each applicant and licensee to develop, implement, and maintain SBO procedures that describe how the licensee will address the following areas if the plant experiences an event that exceeds the values or does not fall within the ranges of values chosen for the reference bounds for the design of the facility:
 - (i) Communication with onsite personnel and offsite entities providing support to mitigate the event;
 - (ii) Onsite actions necessary to enhance the capability of the facility to mitigate the consequences of the loss of all ac power and other equipment damage;
 - (iii) Dispersal of equipment and personnel, as well as rapid entry into site protected areas for essential onsite personnel and offsite responders who are necessary to mitigate the event; and (iv) Recall of site personnel.
 - (2) Require each applicant and licensee to develop and implement guidance and strategies intended to maintain or restore core cooling, containment, and SFP cooling capabilities under the circumstances associated with the loss of all ac power, from an event that does not fall within the reference bounds chosen for the design of the facility, including:
 - (i) Station blackout coping and power restoration activities;
 - (ii) Operations to mitigate fuel damage; and
 - (iii) Actions to minimize radiological release.Please provide the basis for your position.

MNES Comment C.1.d

Yes. Like 10 CFR 50.54(hh)(2), a performance based rule is more appropriate for a beyond design basis event. This effort should not rewrite the existing SBO rule.

NRC Inquiry C.1.e

- e. Recognizing that the SBO mitigation requirements could address a set of events that fall outside the reference bounds for design of the plant and may lead to SBO conditions, success criteria might be more readily established. Should the rule establish success criteria or requirements that apply as a function of the probability of the events? For example, for the more probable/common SBO events, such as those that 10 CFR 50.63 currently addresses, the current 10 CFR 50.63 requirements could largely remain in place. For the low probability, high consequence, hazard-driven SBOs, a different set of success criteria could be established that recognize the lower probabilities of occurrence of these types of SBOs. Please provide the basis for your position.

MNES Comment C.1.e

Agree with NRC's tentative proposal as it is logical and comprehensive.

NRC Inquiry C.2

2. How should actions taken to address the staff's recommended approach for NTTF Recommendation 4.2 be used to support the development of SBO mitigation requirements within a coherent, integrated regulatory framework? Provide a discussion that supports your position.

MNES Comment C.2

Any rulemaking pursued should reflect and be consistent with the activities and implementation of the orders associated with NTTF Recommendation 4.2. Issuance of regulatory requirements which are different than the orders would not result in a coherent or integrated regulatory framework and may result in overlapping and conflicting requirements.

NRC Inquiry C.3

3. The NRC would like stakeholder's views on a regulatory approach to SBO mitigation that conceptually follows the NTTF proposal in NTTF Recommendation 4.1. Specifically, do stakeholders believe that the best conceptual approach for SBO mitigation is to establish requirements for an initial coping period (no ac power available), during which time licensees establish mitigation strategies; followed by an interim period during which time the mitigation strategies are employed for a duration sufficient to enable offsite relief to arrive; followed by a final phase where offsite relief has arrived and a stable shutdown condition is established? Alternatively, if stakeholders have alternative approaches or suggested changes to this conceptual approach, please provide the basis for them.

MNES Comment C.3

Yes. The conceptual approach of establishing mitigation in three phases is appropriate and the duration of the three phases should be performance-based determined from site-specific analyses.

NRC Inquiry C.4

The NRC notes that there is a close relationship between the SBO mitigation requirements under consideration in this regulatory effort and several other near-term actions stemming from the Fukushima Dai-ichi event (and identified in SECY-11-0124 and SECY-11-0137). Regulatory actions taken in response to these other activities may have an impact on any regulatory actions taken to address SBO. In this regard, the NRC would like stakeholder views on the following:

4. Recognizing that SBO mitigation may rely upon Emergency Operating Procedures (EOPs) and Severe Accident Management Guidelines (SAMGs), how should regulatory actions taken to address NTTF Recommendation 8 with regard to coordination of EOPs, SAMGs, and Extensive Damage Mitigation Guidelines be best integrated with SBO mitigation requirements to ensure that actions to address each of these NTTF recommendations do not unduly overlap or inadvertently introduce unnecessary redundancy, inconsistency, or other unintended consequences?

MNES Comment C.4

Implementation of the mitigating strategies for the extended loss of ac power will impact some of the procedures in question. The development of the necessary procedure network to implement the mitigating strategies will not unduly overlap or introduce redundancy, inconsistency or other unintended consequences with NTTF Recommendation 8.

NRC Inquiry C.6

6. Recognizing the importance of SFP cooling and the need to understand the condition of the SFP, how should regulatory actions taken to address NTTF Recommendation 7.1, which addresses SFP instrumentation, be integrated into SBO mitigation plans to ensure that actions to address each of these NTTF recommendations do not unduly overlap or inadvertently introduce unnecessary redundancy, inconsistency, or other unintended consequences?

MNES Comment C.6

Order EA-12-051 should be somewhere in a Regulatory Guide and should not be a rule, considering level of detail. Requirements only on SFP instruments lacks balance in the rule.

D. Functional Considerations and Requirements for Supporting Structures, Systems, and Components and Procedures Rulemaking Objectives/Success Criteria

NRC Inquiry D

An important element of a new set of SBO requirements would be identifying the functions that need to be performed under SBO conditions, since performance of these functions relates directly to achieving the objectives of the rulemaking. Additionally, establishing the functions that must be performed enables the identification of the set of SSCs (SBO mitigation equipment) and supporting procedures, guidelines, and strategies that would need to be employed. The NRC considers the key safety functions identified below to be the essential functions for SBO mitigation, and would like stakeholder's views on whether this is the correct set:

1. Reactor core cooling;
2. Spent fuel pool cooling; and
3. Containment.

MNES Comment D

Among three functions NRC has indicated, SFP cooling is significantly less of a concern than reactor core cooling and containment integrity. Current requirements to augment protection of the SFP are adequate. Equating SFP cooling with reactor core cooling and containment integrity may be counterproductive in that it diverts attention and resources from far more critical plant parameters.

The resolutions to the questions asked should be addressed in guidance documents and not in the rule itself. The issues raised by this question are currently being addressed as part of the implementation of the orders associated with Recommendation 4.2. Any rulemaking pursued should reflect and be consistent with these activities.

NRC Inquiry D.1

With regard to the requirements that would stem from identification of the SBO mitigation functions, the NRC would like stakeholder views on:

1. What requirements (e.g., design, inspection, testing, quality assurance, corrective action) should be applied to the SBO mitigation SSCs that perform the key safety functions to provide increased assurance that the functions can be performed? What constitutes increased assurance (i.e., what must be achieved with the additional treatment requirements) for the mitigation of SBO conditions stemming from either design basis events or from external events that exceed the events chosen as bounding for design purposes? Please provide the basis for your position.

MNES Comment D.1

Since the purpose of this equipment is to provide an additional level of safety for beyond design basis events, it should be maintained and tested in accordance with the scoping criteria of the Maintenance Rule and included in the Online Risk Management system in place at the specific facility. No special treatment requirements should be applied.

NRC Inquiry D.2

2. What requirements for supporting procedures, guidelines, strategies, and training should be included within the SBO rule (also refer to question C.6)? Please provide the basis for your position.

MNES Comment D.2

The SBO rule should not stipulate specific requirements for supporting procedures, guidelines, strategies, and training. Those requirements should be described in implementation guidelines. Applicable training and procedures will be adequately covered by existing rules and regulations and developed using a Systems Approach to Training. SBO specific requirements for training and procedures should not be included in the rule as they will be duplicative of and may conflict with existing requirements.

NRC Inquiry D.3

3. Should the SBO rule address licensee staffing requirements for SBO mitigation for an event involving more than a single unit (for multi-unit sites)? Please provide the basis for your position.

MNES Comment D.3

The resolutions to the questions asked should be addressed in guidance documents and not in the rule itself. The issues raised by this question are currently being addressed as part of the implementation of the orders associated with NTF Recommendation 4.2 as well as through response to Recommendation 9.3 in the NRC letter dated March 12, 2012, "Request for Information Pursuant to Title 10 of the Code of Federal Regulations 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task force Review of Insights from the Fukushima Dai-Ichi Accident". Any rulemaking pursued should reflect and be consistent with these activities.

NRC Inquiry D.4

4. Should the NRC require surveillance testing and limiting conditions for operation for some or all equipment credited for mitigating an SBO event? Alternatively, should the NRC use a different approach for testing of SBO equipment, such as either specific testing requirements in a new rule, use of 10 CFR 50.65 (Maintenance Rule), or other existing plant processes? Please provide the basis for your position.

MNES Comment D.4

Including limiting conditions for operation for this equipment in Technical Specifications would be not consistent with the requirements of 10 CFR 50.36. The details of the programmatic controls should be addressed in guidance documents and not in the rule itself.

NRC Inquiry D.5

5. Should the NRC require applicants and licensees to describe the SSCs, supporting procedures, and programs used to implement the new SBO requirements in the Final Safety Analysis Report? Alternatively, should the NRC consider a special change control requirement for these SSCs, procedures, and programs? If stakeholders agree that such a

requirement would be valuable, what criteria would be used to determine when changes could be made without prior NRC review and approval?

MNES Comment D.5

The mitigating strategies for extended loss of ac power should not be included in the Final Safety Analysis Report since they are to address conditions outside the design basis for the plant. Existing change control processes are sufficient for the mitigating strategies.

E. Applicability to NRC Licenses and Approvals

NRC Statement E

The NRC would apply any new SBO requirements to power reactors, both currently operating and new reactors, and would like stakeholder input on this aspect of the rule.

Accordingly, the NRC envisions that this would include (but not be limited to):

1. Nuclear power plants currently licensed under 10 CFR parts 50 or 52;
2. Nuclear power plants currently being constructed under construction permits issued under 10 CFR part 50, or whose construction permits may be reinstated;
3. Current and future applications for standard design certification and standard design approval under 10 CFR part 52;
4. Future nuclear power plants whose construction permits and operating licenses are issued under 10 CFR part 50;
5. Future nuclear power plants whose combined licenses are issued under 10 CFR part 52, and
6. Future nuclear power plants that are manufactured under 10 CFR part 52.

MNES Comment E

This issue should be addressed in the individual design specific rule making for current design certifications under review. Current (and future) COLAs referencing a design certification currently under review should be bounded by the design certification rule making and not be subject to revision based on subsequent issuance of a revised SBO rule. Once a revised SBO rule has been issued, future design certification applications (and COLAs referencing them) should be subject to the new rule. Should current applicants be subject to a future rule, uncertainty in design finalization would unduly delay completion of the design review. Current applicants can adequately propose acceptable methods of demonstrating reasonable assurance within the design certification process.

F. Relationship Between Existing Station Blackout Requirements in Title 10 of the Code of Federal Regulations, Section 50.63 and the New Station Blackout Requirements

NRC Inquiry F

The NRC is considering how any new SBO requirements would relate to the existing SBO requirements in 10 CFR 50.63, and has identified three approaches:

1. Approach 1 (Base Case—Supplementary SBO Requirements): The new SBO requirements would 1) address SBO issues which are separate from, and address scenarios which go beyond, the existing 10 CFR 50.63 requirements; and 2) be added to the existing 10 CFR 50.63 SBO requirements, possibly in a new section (e.g., 10 CFR 50.XX). This approach would not change the existing 10 CFR 50.63 requirements, with the exception of some conforming changes needed to ensure coordination between the existing, unchanged 10 CFR 50.63 requirements, and the newly-added SBO requirements.
2. Approach 2 (Unified SBO Requirements): The new SBO requirements would: (1) Address SBO issues which are separate from, and address scenarios which go beyond, the existing 10 CFR 50.63 requirements (same as Element 1 of Approach 1); and (2) be integrated into a single rule, representing a unified overall approach to SBO. This differs from Approach 1 in that the NRC would develop new rule language that presents a single, unified approach to SBO covering the full spectrum of issues, accidents, plant conditions, and performance objectives that each nuclear power plant must meet. The new rule would include the current 10 CFR 50.63 requirements.
3. Approach 3 (Superseding SBO Requirements): The new SBO requirements would envelope the full spectrum of issues, accidents, plant conditions, and performance objectives that each nuclear power plant must meet, so that the existing SBO requirements in 10 CFR 50.63 would be subsumed in the new rule. This approach differs from Approach 1 in that the new SBO requirements would address SBOs whose characteristics and scope may be more “severe” than originally envisioned in 10 CFR 50.63. Under Approach 3, the new SBO requirements would entirely supersede and displace the existing SBO requirements in 10 CFR 50.63. All existing SBO requirements would be removed from 10 CFR 50.63 and licensees would be required to change their SBO licensing bases (e.g., change or remove a Final Safety Analysis Report description, a technical specification, or a license condition) to comply with the new requirements.

The NRC therefore seeks stakeholder views on which of these options is best suited for implementing new requirements recommended in response to ANPR Sections B, C, and D, above. What is the basis for your position?

MNES Comment F

The current SBO rule contained in 10 CFR 50.63 has been effective at mitigating the risk associated with a loss of offsite power and the common mode failure of the emergency diesel generators at a nuclear power plant. Great care should be taken with the rulemaking being considered to ensure that the benefits of the current rule, which addresses relatively frequent events, is not lost while trying to mitigate extremely low frequency events. Additionally, a rewrite of the existing rule will result in substantial additional burden to the licensees and DC/COL applicants in modifying their current programs, processes, and documentation without any safety benefit associated with the current scope of 10 CFR 50.63. Therefore, Approaches 2 and 3 should not be pursued.