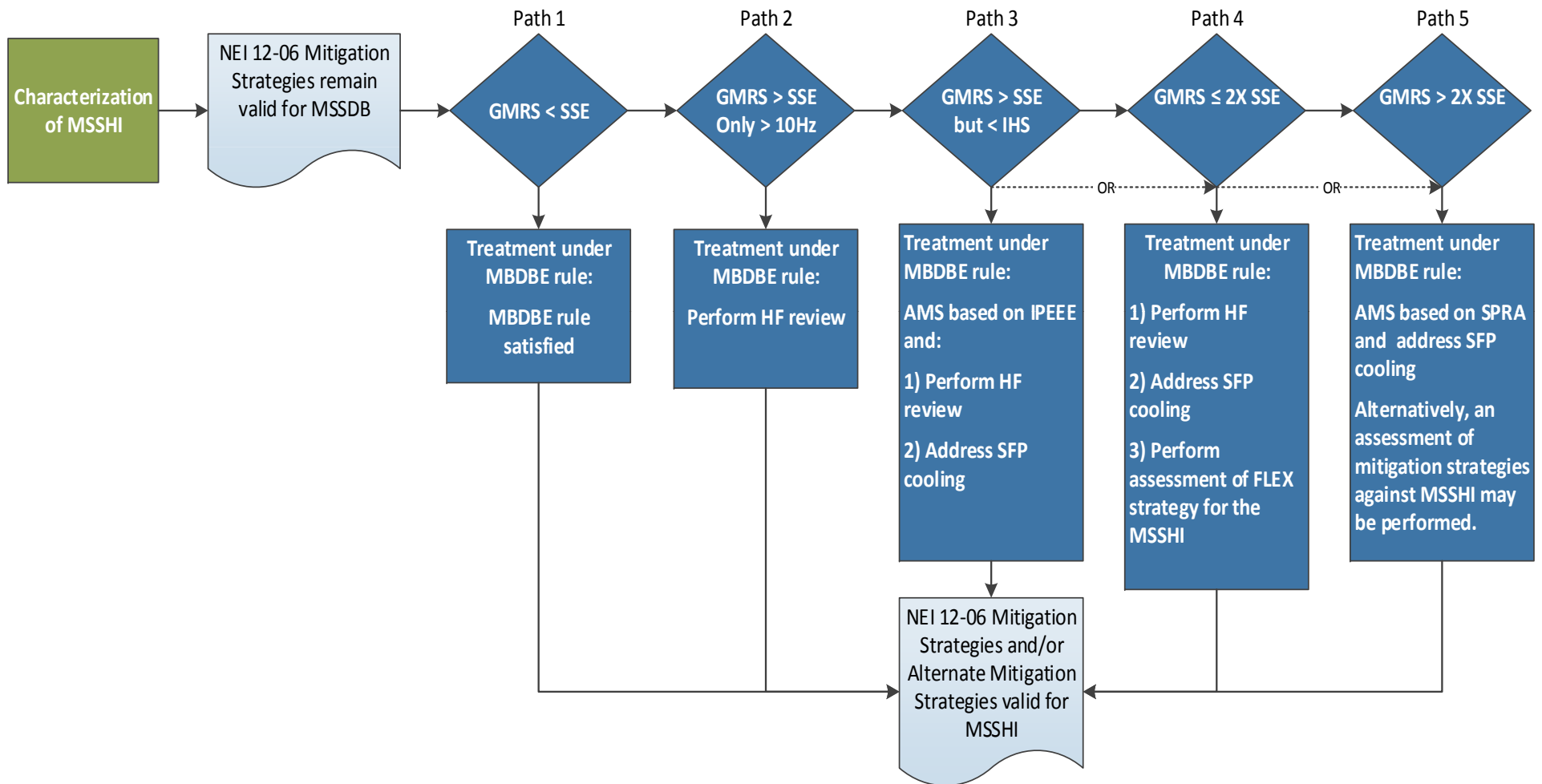


# NRC Public Meeting

## September 3, 2015

# Overview of Appendix H to NEI 12-06

# Appendix H to NEI 12-06 Overview



# Path 1: GMRS < SSE

## Mitigation Strategy

- NEI 12-06 mitigating strategies for existing DBE demonstrate reasonable protection for the reevaluated seismic hazard

## Path 2: GMRS > SSE at frequencies > 10 Hz

### Mitigation Strategy

- NEI 12-06 mitigating strategies performed for existing DBE demonstrates reasonable protection for the reevaluated seismic hazard between 1-10 Hz
- Plants with SSE exceedances only above 10 Hz can demonstrate adequacy of the mitigation strategy with respect to the MSSHI by performing an MSA that consists of an evaluation of high frequency (HF) sensitive in-plant SSCs required for mitigation strategy implementation.
- NEI 12-06 Section 5.3.1 requires that SSCs relied on for mitigation strategies be evaluated as seismically robust to the licensing basis seismic levels (e.g. SSE). This evaluation can be modified to consider HF GMRS exceedances above the SSE and can be performed.
- As described in the SPID as shown in EPRI 1025287, HF ground motions only impact functional failure modes during the GMRS seismic event (e.g. relay chatter), which only affects FLEX Phase 1 permanently installed plant equipment. Therefore, the FLEX HF evaluation scope is focused on seal-in and lock out circuits as described the Appendix H draft.

# Path 3: GMRS > SSE - IPEEE demonstrates seismic capacity above GMRS

## Mitigation Strategy

### Option 1:

- Employ alternate mitigating strategy (AMS) that relies on IPEEE to maintain the key safety functions of core cooling and containment.
  - The IPEEE evaluated core cooling and demonstrated that the plant can safely shut down with redundant success paths with plant seismic capacity above the GMRS
- Perform HF review and address SFP cooling

### Option 2:

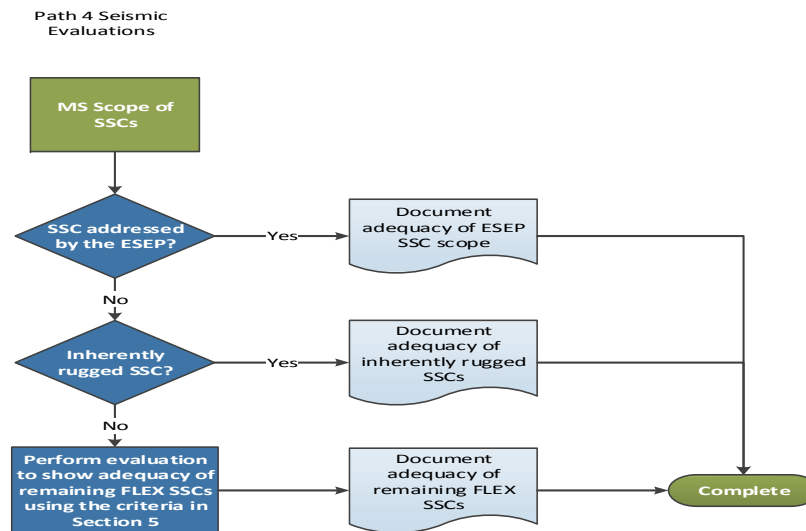
- Follow Path 4 or Path 5 (if SPRA developed)

# Path 4: GMRS $\leq 2 \times$ SSE

## Mitigation Strategy

### Option 1:

- Perform mitigation strategy assessment (MSA) to demonstrate SSCs are seismically robust up to the GMRS earthquake level.
- Perform HF review and address SFP cooling



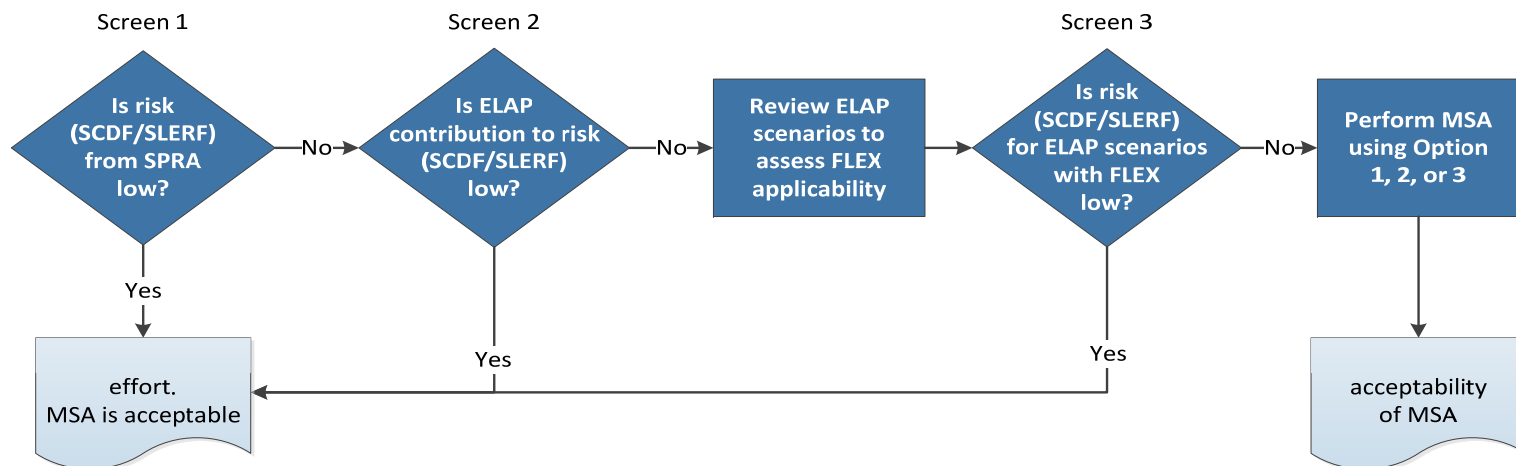
### Option 2:

- Plants that have performed an SPRA can elect to follow Path 5

# Path 5: GMRS > 2 X SSE

## Mitigation Strategy

- Employ AMS which will use SPRA results to maintain key safety functions of core cooling and containment capability
- SFP cooling will be addressed
- The SPRA results will be used to demonstrate the ability of the plant equipment to survive the event and contribute to the coping strategy.
- Licensees that perform a seismic PRA under Path 5 will identify success paths of installed equipment that can cope with the ELAP indefinitely or until off-site resources are available.





# Staggered Seismic PRA Schedule

# Proposed Staggered Submittal Schedule for Seismic PRAs

