

Draft Guidance on Applying a Graded Approach to Site Characterization in the NRC Licensing Framework

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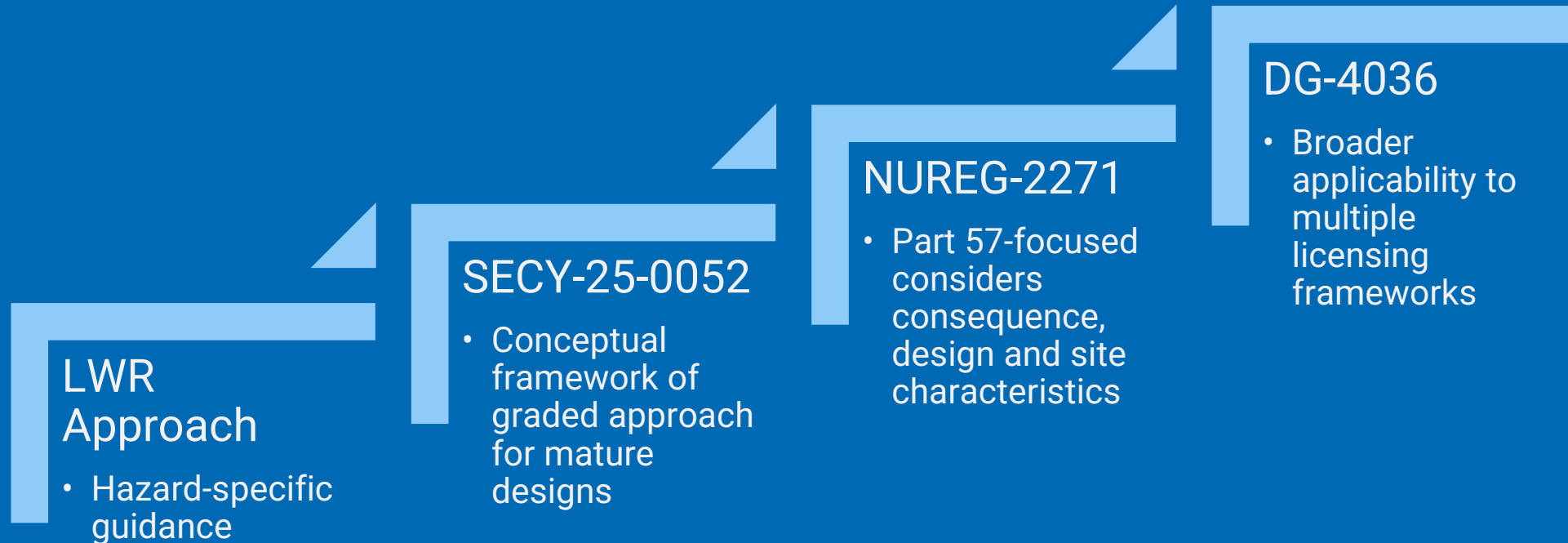
IAEA 20th Meeting of the EESS Extrabudgetary Program
September 22-25, 2026



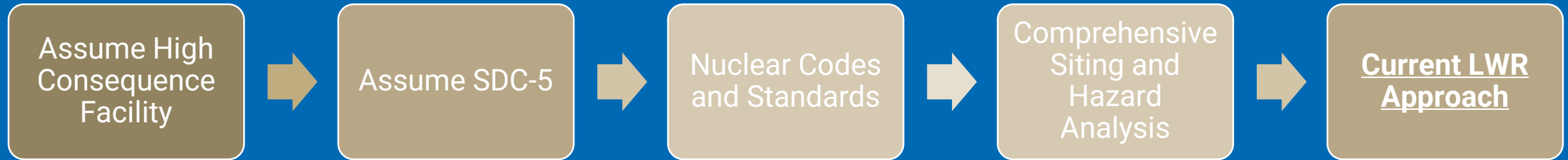
Disclaimer

- This presentation discusses draft guidance that was issued for public comment with the Part 57 and Power to the Grid proposed rules.
- The comment period for the proposed rules is closed and the comments received are being reviewed by the NRC.
- This presentation will not discuss the content or dispositioning of the public comments, or revisions to the draft guidance.

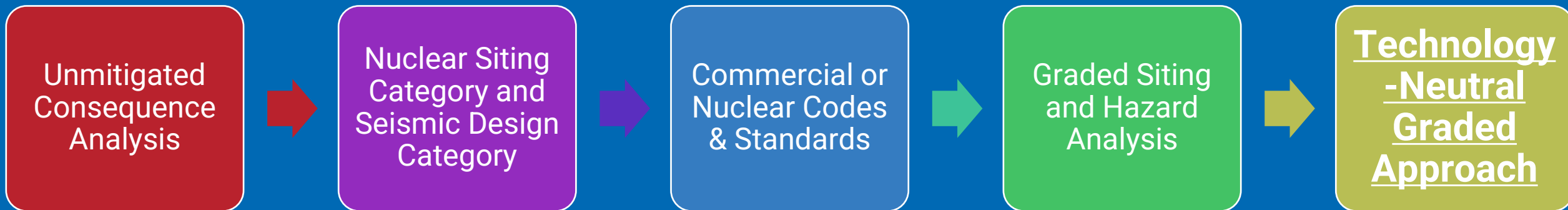
Evolution of a Graded Approach



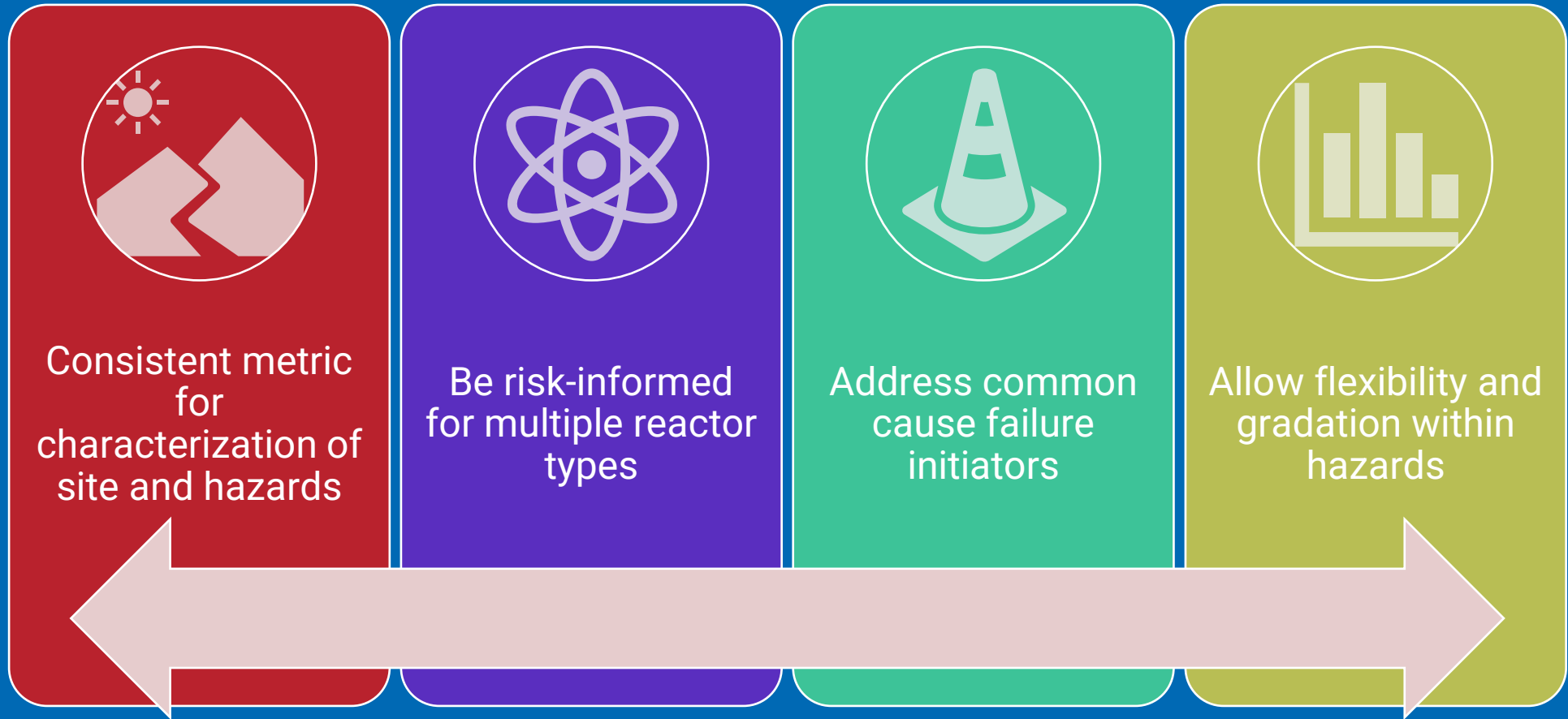
How we started (NUREG-0800 – Standard Review Plan)



How we're evolving (DG-4036 – Graded Approach)



Nuclear Siting Category

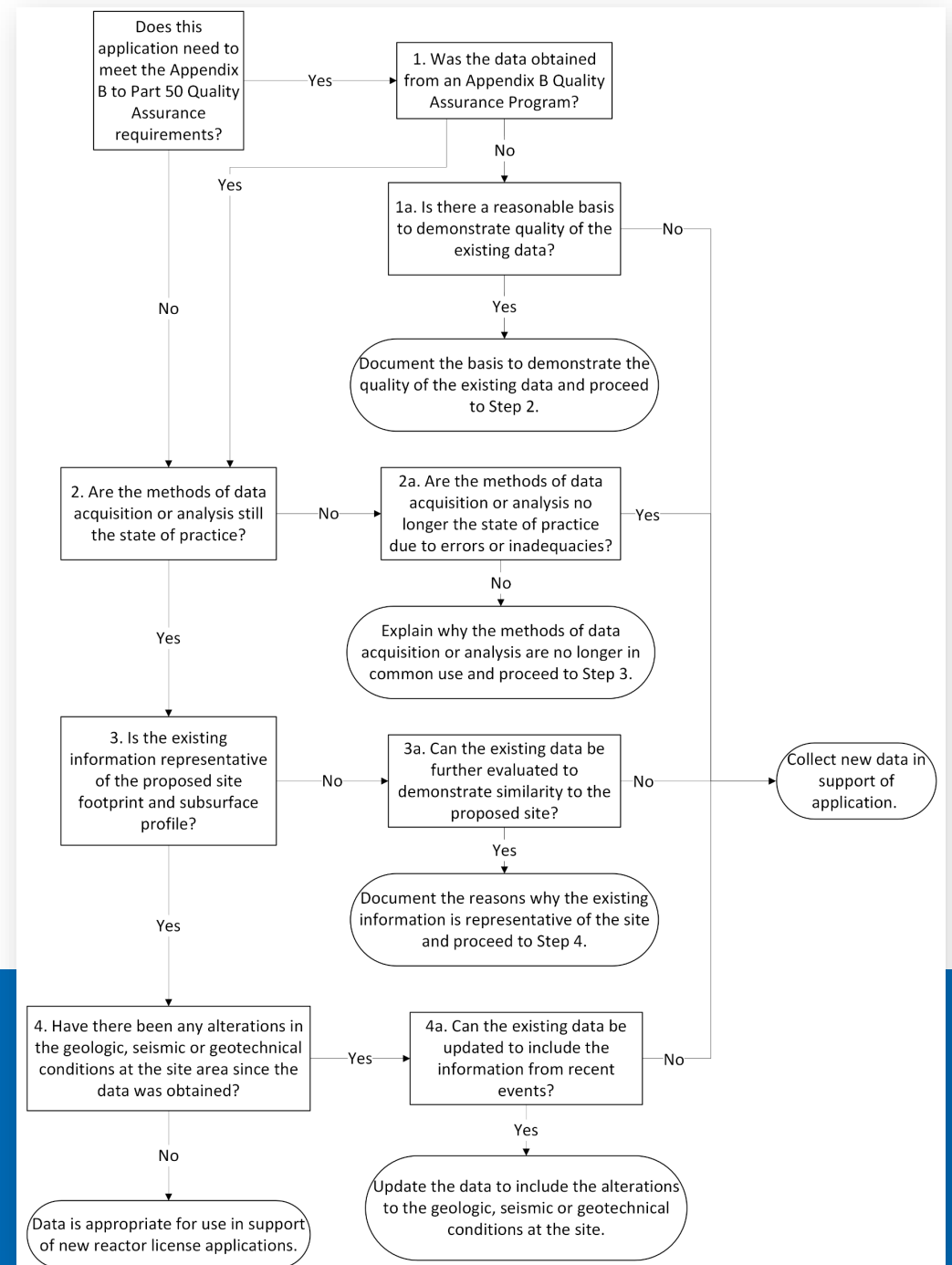


Nuclear Siting Category

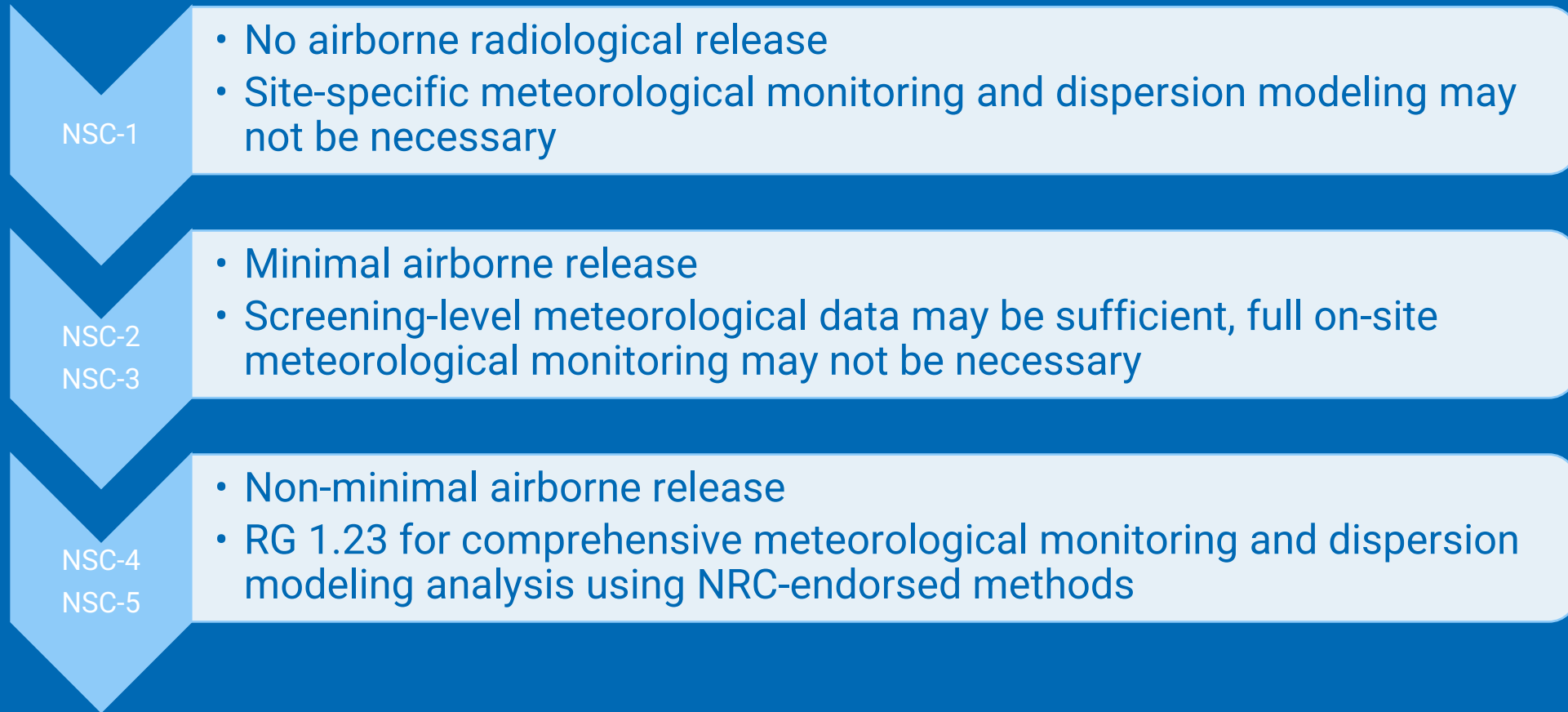
Category	Unmitigated Consequence Public TEDE at EAB
NSC-1	No radiological material expected to reach the EAB
NSC-2	< 5 rem
NSC-3	5 rem – 25 rem
NSC-4	25 rem – 100 rem
NSC-5	> 100 rem

DG-4036

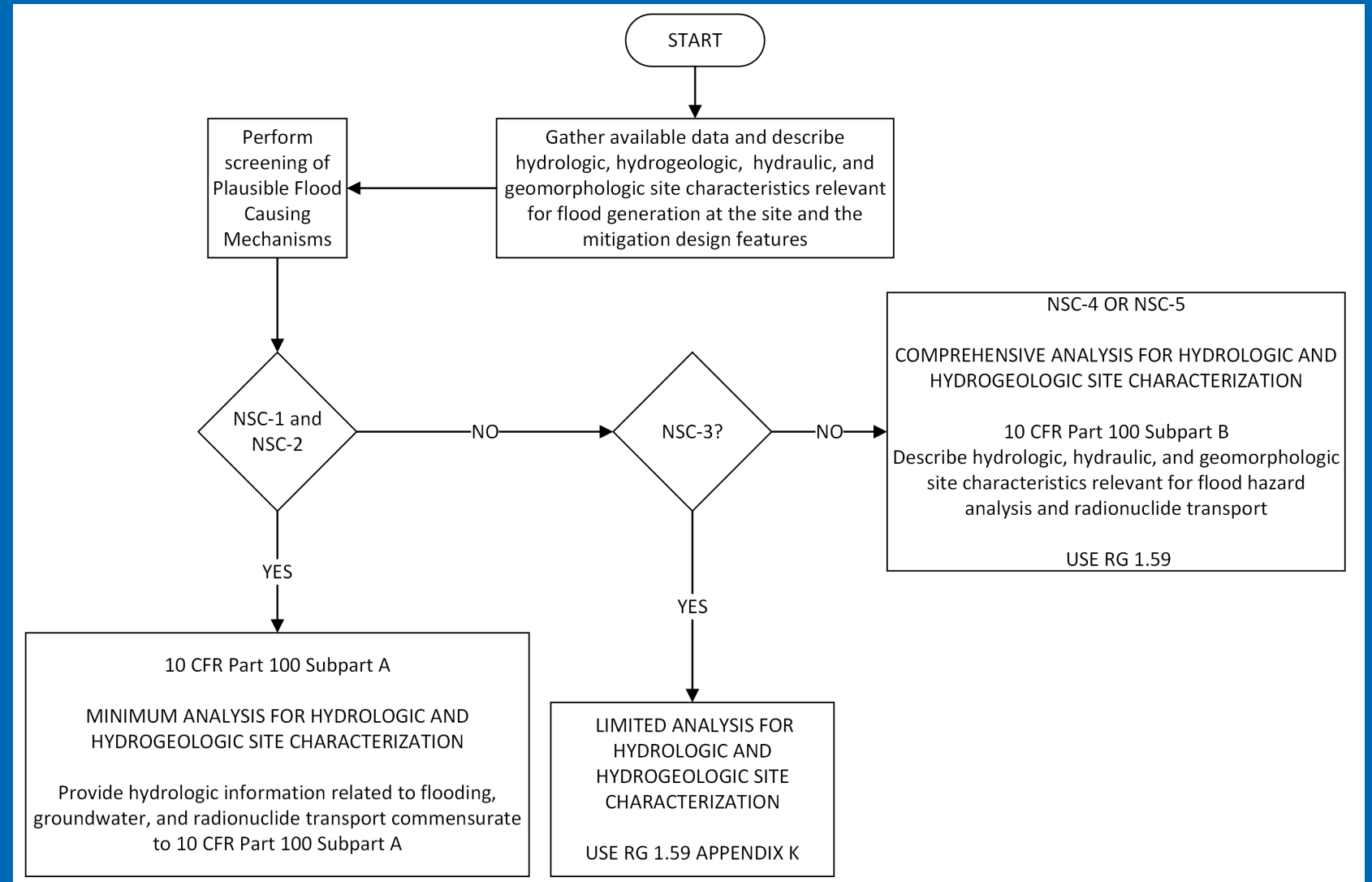
Existing Site Characterization Information



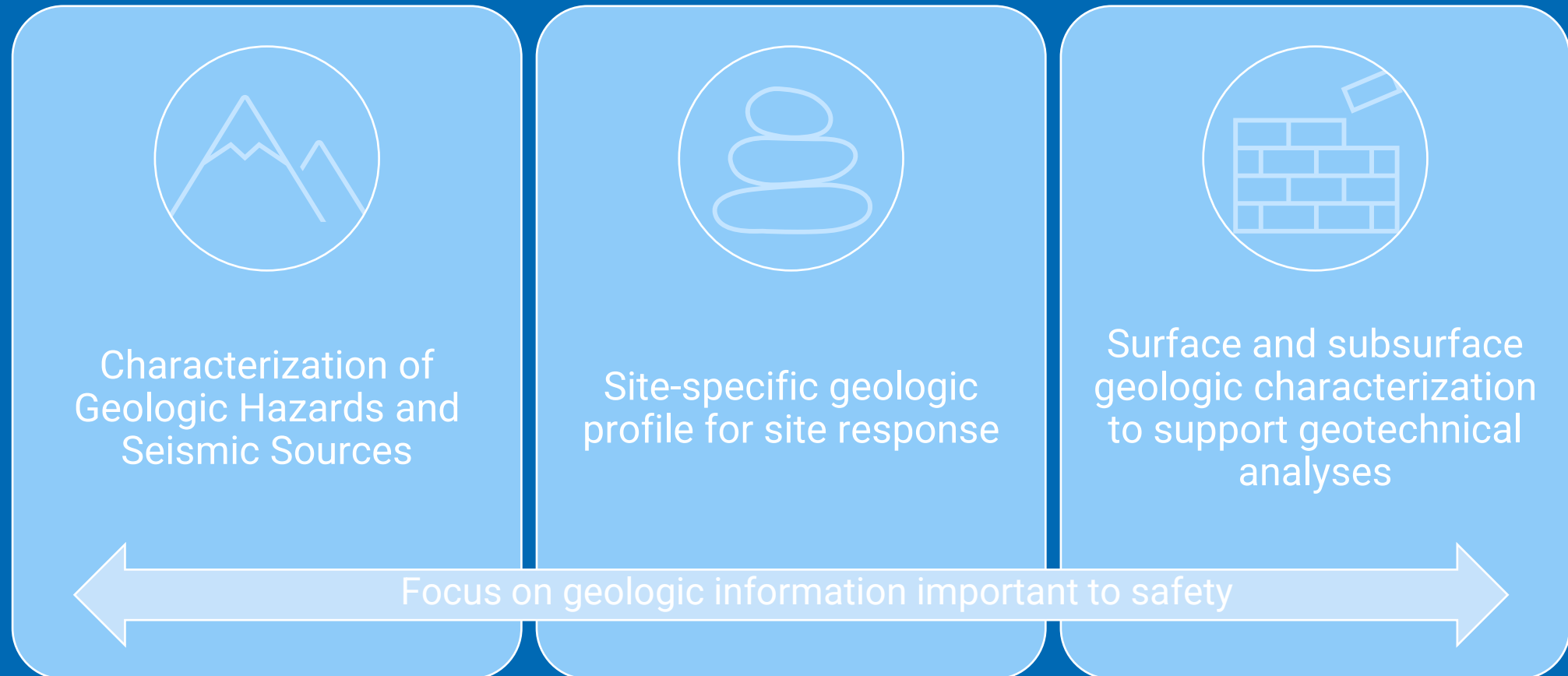
DG-4036: Meteorological Monitoring



DG-4036: Hydrology



DG-4036: Geologic Hazards



DG-4036: Seismology

NSC-1 and NSC-2

- May use default USGS generic site term if geophysical data to determine site-specific shear wave velocity is absent/unreliable
- MCE_R (ASCE/SEI 7-22) may be used to define the GMRS

NSC-3

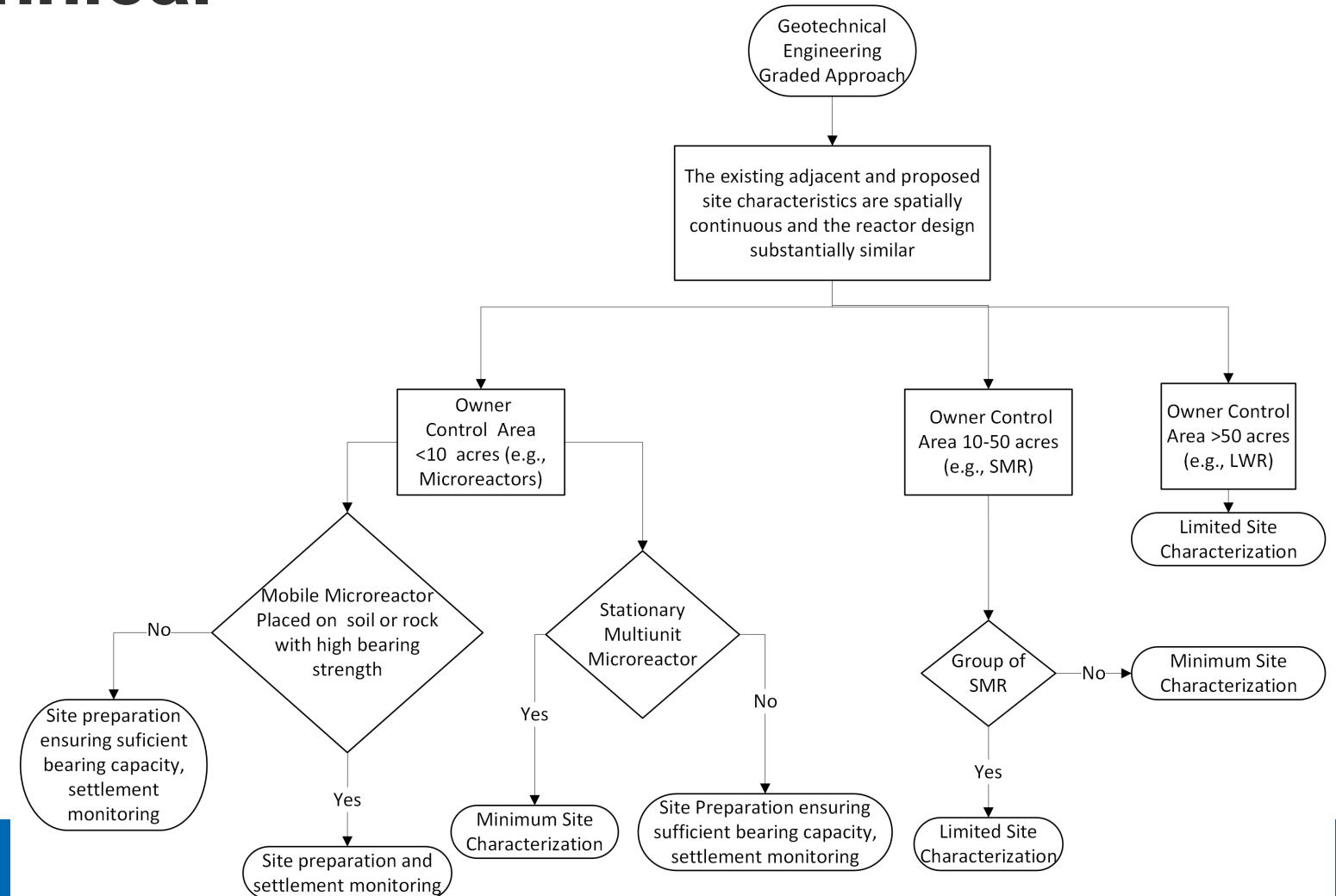
- Leverage USGS with verification of individual model components (SSM, GMM, site response) otherwise follow RG 1.208
- GMRS from ASCE 43-19

NSC-4 and NSC-5

- Follow RG 1.208
- ASCE 43-19 for site-specific GMRS

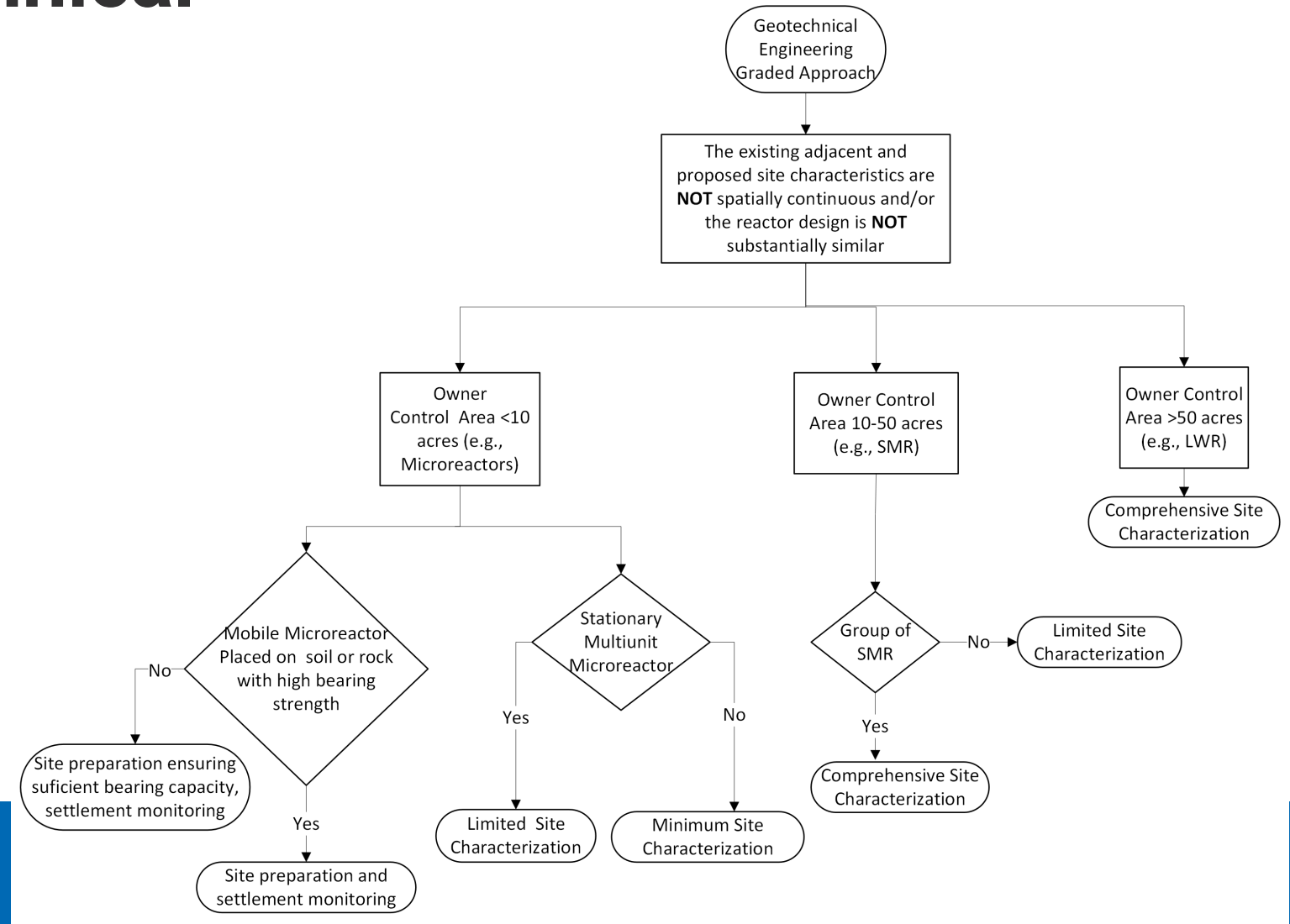
DG-4036: Geotechnical Investigations

Spatially continuous site and substantially similar design



DG-4036: Geotechnical Investigations

Not spatially continuous site or
not substantially similar design



Next steps

- Resolution of public comments
- Revising guidance prior to final publication
- Reevaluate the approach based on experience

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