

**U.S. Nuclear Regulatory Commission Response to GAO-24-106326,  
“Nuclear Power Plants: NRC Should Take Actions to Fully Consider the Potential Effects  
of Climate Change”**

**U.S. Government Accountability Office (GAO) Recommendation 1:** The Chair of the NRC should direct NRC staff to assess whether its licensing and oversight processes adequately address the potential for increased risk to nuclear power plants from climate change.

NRC Response: Consistent with the discussions between GAO and NRC staff during the GAO’s performance audit, the NRC staff is reviewing the recently released Fifth National Climate Assessment (NCA5) under its Process for the Ongoing Assessment of Natural Hazards Information. This review of NCA5 and its supporting technical literature will be the starting point for the identification of any potential gaps relevant to the NRC’s licensing and oversight processes. NRC staff will determine if and how the updated information might inform the licensing and oversight of existing licensed power plants. The NCA5 review is also expected to include updating published climate reports associated with the research project, “Potential Impacts of Accelerated Climate Change,” performed under the NRC’s Probabilistic Flood Hazard Assessment Research Program, as was done after the publication of NCA4 in 2018. It may also include regional or site-specific reviews of some or all climate-related hazard changes for the operating fleet. In addition, the NCA5 review may inform the NRC staff’s development and guidance updates for the licensing of new facilities, as described in response to GAO’s Recommendation 3.

The NRC’s review will focus on impacts related to its safety mission and will not address impacts related to energy resilience, such as avoiding more frequent disruptions and other operational issues that are under the control of licensees and outside of the NRC’s mandate.

**GAO Recommendation 2:** The Chair of the NRC should direct NRC staff to develop, finalize, and implement a plan to address any gaps identified in its assessment of existing processes.

NRC Response: The NRC staff will assess the safety significance of any gaps, if identified, through the staff’s NCA5 review or through any subsequent activities conducted in response to GAO’s Recommendation 1. Pursuant to staff’s existing processes, staff will address any risk significant gaps, if identified.

**GAO Recommendation 3:** The Chair of the NRC should direct NRC staff to develop and finalize guidance on incorporating climate projections data into relevant processes, including what sources of climate projections to use and when and how to use climate projections data.

NRC Response: The NRC has published a large collection of regulatory guides, which cover a wide variety of safety and risk topics for both operating and new facilities, including those where consideration of climate projection data might be important. The NRC staff is conducting a comprehensive review of relevant regulatory guides to determine whether any require an update or revision to address considerations related to climate change. This review will leverage NRC’s well-established program for the development and maintenance of guidance. The NRC staff’s NCA5 review will also support a determination of whether specific new guidance related to use of climate projections is warranted. The NRC plans to implement these actions whether

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considered a gap in the context of GAO Recommendations 1 and 2 or not, since these actions are part of our existing process of periodically reviewing regulatory guides.

In addition to the actions to be taken by the NRC licensing and oversight staff described in the above responses, the NRC's Office of Research will continue its forward-looking research activities with respect to climate change issues. For example, one project has been in development since 2022 to assess methods for incorporating regional or local sea level rise scenarios into storm surge hazard assessments.