NRC Takes Important Step Toward Following White Paper Recommendations for Streamlining NEPA Reviews for Advanced Nuclear Reactors

The NRC has declared its intent to streamline the environmental review process for advanced nuclear reactors in an important step that will facilitate the construction and operation of these clean energy sources.

By Jeffrey S. Merrifield, Reza Zarghamee

TAKEAWAYS

طق The NRC follows up on a proposal that Pillsbury attorneys and firm client ClearPath set forth in an influential 2019 White Paper regarding the development of a GEIS for the construction and licensing of advanced nuclear reactors.

طق The development of a GEIS for advanced nuclear reactors is consistent with other federal efforts currently underway to update and streamline the environmental review process mandated under NEPA.

طق NRC’s preliminary estimate is that the proposed GEIS would expedite Commission review of advancing nuclear reactors by 25% and reduce the length of each EIS by 37.5%, resulting in more manageable and straightforward environmental documentation of proposed nuclear energy projects.

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Background

The National Environmental Policy Act (NEPA) requires federal agencies proposing to undertake, approve or fund “major Federal actions” to evaluate the action’s environmental impacts, including both direct
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and reasonably foreseeable indirect effects. NEPA also requires agencies to consider alternatives to the proposed action and to discuss cumulative impacts resulting from the incremental effects of the project when added to those of other past, present, and reasonably foreseeable future projects.

In practice, NEPA review has developed into a burdensome, costly and time-consuming process that results in inconsistent outcomes. There are multiple reasons for this, including:

- **The use of litigation predicated on alleged deficiencies in the NEPA process to oppose federal actions.** This has resulted in the production of voluminous NEPA documents that function primarily to stave off claims of inadequacy rather than serve the straightforward purpose of conducting an environmental review.

- **The redundancy between NEPA review and assessments undertaken by permitting authorities.** When NEPA was enacted in 1970, environmental regulation and permitting were in their infancy, but that is no longer the case, and there is much overlap between NEPA reviews and the type of analysis that goes into permit determinations.

In early 2019, Jeff Merrifield and Reza Zarghamee of Pillsbury represented ClearPath, a Washington, DC-based thinktank dedicated to the principle of United States leadership in clean energy, in developing and submitting to NRC a white paper advocating the use of a Generic Environmental Impact Statement (GEIS) to streamline the NRC’s NEPA procedures (codified at 10 CFR Part 51) for prospective environmental reviews of advanced nuclear reactors. A GEIS is a tool available under NEPA that allows agencies to address certain potential environmental impacts generically, thus obviating the need for redundant case-by-case review in each Environmental Impact Statement (EIS). To the extent that certain potential impacts cannot be addressed generically, they can be dealt with on a specific basis in a Supplemental Environmental Impact Statement (SEIS). The NRC has issued several GEISs since 1978, including documents for license renewal (NUREG 1437) and decommissioning (NUREG 586), which served as templates for the approach advocated in the white paper.

Submission of the white paper followed a series of Trump Administration initiatives aimed at streamlining the NEPA process in order to stimulate United States infrastructure development, including Executive Order 13807 “Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure Projects” (August 15, 2017), Title 41 of the Fixing America’s Surface Transportation Act (FAST-41), and the signing into law of the Nuclear Energy Innovation and Modernization Act (NEIMA). It also generally coincided with similar policy proposals by industry groups such as the Nuclear Energy Institute, which, though not exclusively dedicated to the GEIS approach, also advocated for restructuring environmental reviews for advanced nuclear reactors.

In light of these developments, NRC organized a series of advanced nuclear reactor stakeholder meetings and also announced an exploratory process and solicited comments to determine whether to develop a GEIS (84 Fed. Reg. 62,559 November 15, 2019). The February 28, 2020, policy statement sets forth the outcome of this
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process.

**Key Aspects of NRC’s February 2020 Policy Statement**

The most important aspect of the February 2020 Policy Statement concerns the range of advanced nuclear reactors that stand to benefit from the GEIS. Whereas NEIMA and the ClearPath white paper provided definitions sufficiently broad to capture both Generation III+ and Generation IV advanced nuclear reactors, the Policy Statement for now applies to only a subset of Generation IV technologies—i.e., any “small-scale [non-light-water] ANR [advanced nuclear reactor] as having the potential to generate up to approximately 30 megawatts thermal (Mwt) per reactor with a correspondingly small environmental footprint.” The reason for this is that the bulk of comments and information that the NRC received during the exploratory process pertained to such reactors. Although the range of advanced nuclear reactors covered by this definition would capture many small modular reactor designs, it leaves out others, such as larger Generation IV and Generation III+ technologies. However, the Policy Statement makes clear that these may be added to the scope of the GEIS in the future. A more detailed set of technical criteria for eligible reactor designs is forthcoming, and the Policy Statement indicates that NRC will engage with stakeholders in its development.

In terms of the range of potential environmental impacts that would be covered in the GEIS (as opposed to those that would have to be treated on a site-specific basis through the use of a SEIS), the Policy Statement provides only general indications of the direction the Agency is heading. Specifically, NRC staff expects that potential impacts to land use and water resources can be dealt with generically, whereas any unique site features, socioeconomic factors, and factors related to the proposed purpose of the reactor (e.g., desalination as opposed to electricity) would have to be reviewed in a SEIS.

**Benefits of the GEIS Approach**

In light of this approach, the Policy Statement anticipates considerable reductions in EIS size and review time for advanced nuclear reactors:

<table>
<thead>
<tr>
<th></th>
<th>Standard Review for Large Light Water Reactor</th>
<th>Anticipated Review for Advanced Nuclear Reactor without GEIS</th>
<th>Anticipated Review for Advanced Nuclear Reactor with GEIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anticipated Time</strong></td>
<td>36+ months</td>
<td>24 months</td>
<td>18 months or less</td>
</tr>
<tr>
<td><strong>Anticipated EIS Length</strong></td>
<td>1200 pages</td>
<td>400 pages</td>
<td>250 pages</td>
</tr>
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The anticipated page length of a GEIS-based environmental review meets the 300-page limit for EIS set forth in the recently proposed amendments to the Council on Environmental Quality’s NEPA regulations (85 Fed. Reg. 1684 January 10, 2020)
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NRC’s Apparent Intent to Fast-Track the GEIS
The anticipated time and cost savings are significant enough that they seem to have influenced NRC’s decision to make a determination on an advanced nuclear reactor GEIS at this time. This is evident from the Policy Statement’s explanation of the four options that NRC considered for the development of the GEIS:

1. No GEIS
2. Start the GEIS immediately along the lines specified in the Policy Statement
3. Develop the GEIS after completing the review of the first advanced nuclear reactor application
4. Develop the GEIS over a longer period after developing experience in the disposition of applications

The first option represents the “no-action” alternative, whereas the second is the selected alternative. The NRC’s rationale for rejecting the third and fourth alternatives is telling: “developing the GEIS at a later date would delay the benefits of a GEIS for potential advanced reactor applicants and would delay substantive engagement on generic environmental issues with a broad range of stakeholder.”

NRC’s tentative plans to issue the GEIS without a rulemaking are further indicative of its potential benefits. By incorporating its findings by reference into a site-specific environmental review document, NRC can avoid potential delays in the typical rulemaking process that results in the promulgation of codified regulations. On the other hand, it leaves the door open for a greater field of potential issues that could be raised during the hearing process on advanced nuclear reactor applications.

What Should I Do?
According to the Policy Statement, NRC estimates that it would take another 24 months to develop the advanced nuclear reactor GEIS. Furthermore, NRC has indicated that it plans to engage with stakeholders during this time, either through public meetings or Federal Register notices. Given the chance to interact with the Commission, as well as the Policy Statement’s indications that many aspects of the proposed approach are still open to change, interested parties should be proactive and take advantage of these opportunities to influence the final outcome of this important NRC initiative.

Pillsbury has leading nuclear regulatory and environmental practices with over 60 years of experience representing clients in connection with rulemakings and other important regulatory developments. Pillsbury practitioners include a variety of nuclear specialists including a former NRC commissioner and NEPA specialists. Please contact Jeff Merrifield (at 202.663.8718 or jeff.merrifield@pillsburylaw.com) or Reza Zarghami (at 202.663.8580 or reza.zarghami@pillsburylaw.com) for assistance.

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