April 12, 2010

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510

Dear Madam Chairman:

As part of a continuing effort to enhance the agency's effectiveness, I requested that the Bipartisan Policy Center (BPC) conduct an independent review of the U.S. Nuclear Regulatory Commission (NRC) licensing process for new reactors. Under the leadership of former Senator Pete Domenici and former NRC Chairman Richard Meserve, the BPC engaged a broad range of stakeholders over several months and convened a forum to discuss several important aspects of this issue during their review. Enclosed is the final BPC report.

I am pleased that the BPC assessment recognizes and confirms the high-quality work of the NRC staff in conducting thorough and timely reviews of license applications. The agency has a strong commitment to continuous improvement, and I fully support the BPC's recommendation for the NRC to ensure that lessons learned from the first round of applications enhance any subsequent reviews. Moving forward, I plan to ask the NRC staff to conduct a lessons-learned analysis after the first combined license review has been completed. As part of this review, I also intend to ask the staff to develop policy proposals for Commission consideration that would strengthen the review process based on the lessons learned.

This independent report will be of great assistance to the NRC as it assesses and seeks to strengthen its licensing review process. I hope you will find this report useful in your work as you consider and develop energy legislation. Please contact me if you have any questions.

Sincerely,

/RA/

Gregory B. Jaczko

Enclosure: As stated

cc: Senator James M. Inhofe

Identical letter sent to:

The Honorable Barbara Boxer
Chairman, Committee on Environment
and Public Works
United States Senate
Washington, D.C. 20510
cc: Senator James M. Inhofe

The Honorable Thomas R. Carper
Chairman, Subcommittee on Clean Air
and Nuclear Safety
Committee on Environment and Public Works
United States Senate
Washington, D.C. 20510
cc: Senator David Vitter

The Honorable Henry A. Waxman
Chairman, Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515
cc: Representative Joe Barton

The Honorable Edward J. Markey
Chairman, Subcommittee on Energy
and Environment
Committee on Energy and Commerce
United States House of Representatives
Washington, D.C. 20515
cc: Representative Fred Upton

The Honorable Peter J. Visclosky
Chairman, Subcommittee on Energy
and Water Development
Committee on Appropriations
United States House of Representatives
Washington, D.C. 20515
cc: Representative Rodney Frelinghuysen

The Honorable Byron Dorgan
Chairman, Subcommittee on Energy
and Water Development
Committee on Appropriations
United States Senate
Washington, D.C. 20510
cc: Senator Robert F. Bennett

The Honorable Jeff Bingaman
Chairman, Committee on Energy
and Natural Resources
United States Senate
Washington, D.C. 20510
cc: Senator Lisa Murkowski

The Honorable Brian N. Baird
Chairman, Subcommittee on Energy
and Environment
Committee on Science and Technology
United States House of Representatives
Washington, D.C. 20515
cc: Robert D. Inglis

The Honorable Lamar Alexander
United States Senate
Washington, D.C. 20510

The Honorable John Kerry
United States Senate
Washington, D.C. 20510

The Honorable Joseph Lieberman
United States Senate
Washington, D.C. 20510

The Honorable Lindsey Graham
United States Senate
Washington, D.C. 20510

The Honorable George Voinovich
United States Senate
Washington, D.C. 20510

The Honorable Jim Webb
United States Senate
Washington, D.C. 20510

The Honorable John McCain
United States Senate
Washington, D.C. 20510

The Honorable Mike Simpson
United States House of Representatives
Washington, D.C. 20515

BIPARTISAN POLICY CENTER

April 6, 2010

Gregory B. Jaczko
Chairman
Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

Dear Chairman Jaczko:

We are writing in response to your request that the Bipartisan Policy Center conduct a review of the NRC licensing process for new reactors. You asked that we examine whether there have been unnecessary delays in the licensing process for new nuclear plants caused either by the NRC or by the nuclear industry. In short, we did not find any evidence that either the NRC or industry has needlessly delayed or extended the licensing process. You also asked for a report on any findings and recommendations to improve the process going forward. This letter constitutes our response to your request.

To accomplish this task, we interviewed NRC staff and former NRC commissioners, representatives of reactor vendors, applicants for Combined Operating Licenses (COLs), nuclear engineering firms, and representatives of environmental and other organizations that have actively engaged in the licensing process. We also hosted a half-day forum to which we invited a broad group of stakeholders to discuss issues raised during the individual interviews and to elicit additional views and comments.

General Themes/Issues

In summary, we found that, while many of the stakeholders have encountered some problems in maneuvering through the licensing process, there was a near-unanimous view that all parties have acted appropriately and in good faith to resolve any problems. The NRC was not seen to have needlessly delayed or extended the licensing process. Based on our interviews, we believe that the difficulty of obtaining financing is a bigger obstacle to nuclear plant construction at the moment than licensing issues.

Nonetheless, a number of suggestions were made for improving the process going forward that we found to be well grounded and reasonable so we mention them in this report. In particular, the parties hope and expect that the lessons learned in the processing of the initial applications will result in changes that will improve the process and make it more transparent and efficient. Given the NRC's performance to date, we expect that this will be the case.

The licensing process for new reactors that is now underway has been a learning experience for all involved. Indeed, the NRC has confronted an unprecedented challenge

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Jason S. Grumet

in processing the initial applications. The licensing system embodied in Part 52 of the NRC's regulations had envisioned that applications for COLs would reference designs that had been certified and sites that had the benefit of early site permits. It was anticipated that, with these pieces in place, the review process for COLs would be simplified and relatively straightforward. As it happened, numerous COL applications were filed in parallel with applications for certified designs. The staff thus had the challenge of dealing simultaneously with a large number of overlapping applications that were filed pursuant to an entirely new and largely untested licensing regime. This was further complicated by the fact that new-plant licensing at the NRC has been dormant for many years and needed to be resuscitated. And, at the same time, the NRC was undertaking the hiring and training of a large cadre of new employees and managers, while industry was simultaneously rebuilding its staff. Overall, we believe that the NRC staff has done a remarkable job under trying circumstances. Many stakeholders commented on the high level of commitment demonstrated by the NRC staff to resolve disputes in a fair, consistent, and clear manner.

It was also clear from our interviews, however, that there has on occasion been some miscommunication between NRC staff and applicants, leading to some confusion and delay. Much of the confusion can apparently be traced to misunderstandings as to NRC expectations in regard to the level of detail required in applications. Since the licensing process is new, successful templates by which an applicant can measure its filings do not yet exist. This has put the applicants (and interveners) in a difficult position when applications had to be supplemented as the process has moved forward. Some industry representatives acknowledged that they have not always been able to respond to NRC staff's Requests for Additional Information (RAIs) in as timely a manner as they would like –the responses can on occasion require significant time and effort -- and they also accept some responsibility for past miscommunications. In our judgment, many of these issues should resolve themselves as all sides gain more experience. The Commission and NRC staff should also strive to provide clear guidance to applicants to minimize delays caused by miscommunications as subsequent applications make their way through the process.

Design Certification

The current Design Certification (DC) process has proven cumbersome, in large part because of the parallel submission of COL applications referencing a design then undergoing review for certification. As noted above, efficiencies would have been available if the design certifications had been completed before the NRC was required to process the COL applications referencing that design. The simultaneous processing of DC and COL applications has created some uncertainty arising from the interplay between the two processes. This put interveners in a difficult position by forcing them to monitor multiple proceedings. Nonetheless, all parties appear committed to make the best of the situation. These issues should resolve themselves when the current design certifications are completed and subsequent COL applications reference certified designs.

Scheduling certainty and clarity of NRC management expectations are critical for the vendors. Some vendors believe that the NRC staff has not been consistent over time in the detail that is expected from the vendor. We were told that there have been situations in which different reviewers have caused confusion by applying different standards for review. Indeed, some vendors have complained that issues that were believed to have been resolved were subject to reopening as different reviewers became involved. We conclude that the Commission should focus its attention on providing clear guidance on the level of design detail and analysis that is expected in applications. We understand that the NRC staff is paying attention to this issue, and we bring it up here because we believe that this is an area where a continuing active focus by the Commission and NRC management is warranted.

Ensuring a sensible path forward for future reactor design modifications was also an issue of concern for some stakeholders. There is an inherent tension between the policy goals of, on the one hand, building a standardized fleet of new reactors and, on the other hand, ensuring that modifications based on experience with a design are applied so as to improve safety and environmental performance. We understand that at least one design center has created a committee to look at the issue of how best to incorporate new technology changes into future reactor construction. We believe this is a sensible step and the Commission should closely monitor progress to ensure that there is a transparent and efficient methodology to achieve an appropriate balance between these two important goals.

Combined Operating License

Although there have been occasional "bumps in the road" in the processing of COL applications, the fact that problems have surfaced was neither unexpected nor have the problems proven insurmountable. The general sense is that the NRC staff has generally worked with the applicants in a direct way to resolve issues in a timely fashion. Because there has not yet been a successful application that has gone through the entire process from beginning to end, applicants have no model upon which to base their submissions. Both applicants and the NRC are learning as the initial applications are processed. Not surprisingly, there on occasion have been differing expectations as to what is required. Once the process has run its course a few times, we expect that many of these issues will resolve themselves.

Nearly all the applicants indicated that certainty in scheduling is more crucial than speed. Nonetheless, although the Part 52 process largely serves to move regulatory decisions as early in the process as they can reasonably be made, there often are significant expenditures that must be incurred for long-lead-time components before the licensing process has been completed. With hundreds of millions of dollars at stake, even a small delay can have a significant financial impact. Therefore, efforts should be made to avoid unnecessary delays.

Several applicants questioned the need for a mandatory uncontested hearing – a hearing that is held even in the absence of a successful intervention by a party opposing a license

-- at the end of the COL process. They observed that there are multiple opportunities for public involvement and expert review in the current licensing process, and that the mandatory hearing requirement is an anachronism from an earlier age. They noted the public access that is now a standard part of the staff's review of the licensing application and the environmental impact statement and the detailed review that is undertaken by the independent experts on the Advisory Committee on Reactor Safeguards. As a result, they claim that a mandatory uncontested hearing is a duplicative and time-consuming step that serves little purpose. Some intervener groups, on the other hand, point out that the industry has been successful in recent time in rehabilitating public support for nuclear power and that the quickest way to subvert that momentum would be to eliminate the mandatory hearing requirement or to otherwise limit the confidence of the public in the integrity of the licensing process.

We understand that a mandatory hearing on each application for a construction permit is required by the Atomic Energy Act and therefore it is beyond the authority of the Commission to eliminate it. However, even in the absence of a legislative change, the Commission can reduce the uncertainty associated with the duration of the hearing. For example, the Commission might convene a legislative-style hearing to ascertain the sufficiency of the licensing review. Rather than limiting public involvement, a legislative-style hearing might allow appropriate and efficient wide-scale scrutiny to supplement the staff and the ACRS's licensing review. Of course, such a hearing would be in addition to any detailed review of contentions by the Atomic Safety and Licensing Board (ASLB) in cases in which there has been a successful intervention.

Another major issue that was brought to our attention relates to the environmental review process. We understand that, at least in respect to the initial COL applications, the EIS process is currently more advanced than the safety review process. In these cases, any effort to "speed up" the environmental reviews will have no effect on the overall licensing schedule. This may not continue to be the case for other applications in the queue. That is, the time needed for the safety review of subsequent COL applications referencing a certified design will likely be reduced because non-site specific issues will have already been addressed. Thus, the timing of the environmental review may become a critical consideration going forward.

One suggestion offered in our meetings was to allow the filing of contested issues on the draft EIS, instead of waiting until the final EIS to issue. It was argued that such an approach would allow any ASLB hearing to start earlier. However, the draft EIS would have to be of high quality for this approach to be effective and there is no certainty that time would be saved for every application. For example, interveners would retain the right to file contentions relating to issues arising from any changes introduced in the final EIS. And perhaps little efficiency might be gained if the concurrence by other agencies has not been obtained on the draft EIS. Experience going forward should indicate whether such a change in process would be helpful.

Our comment on this point reflects a general rule: the NRC and the other stakeholders should seek to learn from the existing processing of applications and should seek to achieve efficiencies based on that knowledge going forward. The overall aim should be to reduce the licensing burden without affecting the quality, scope or the thoroughness of the review. A commitment to learn from experience should be the guide.

Summary

In sum, we note that there was near-universal respect and admiration for the NRC staff among the stakeholders we interviewed. Although the licensing process is new, both the NRC and the industry have done a remarkable job in very trying circumstances in assuring the thorough and timely evaluation of license applications. The fact that all parties have experienced some problems in navigating the process was to be expected under the circumstances. But it is apparent that all those involved have been diligent in working through the issues in a forthright manner.

The Commission can, and should, continue to exercise clear leadership to ensure that the processing of the applications continues with the same attention to detail and to efficiency as has been the case to date. The Commission should ensure that the lessons learned in the first round of applications are rigorously applied to make the processing of subsequent applications more efficient. We also believe that the changes we outlined above would have a modest, but measurable impact upon the process.

On behalf of the Bipartisan Policy Center, we thank you for giving us the opportunity to assess the progress that has been made in laying the foundations for the deployment of safe nuclear power in the U.S. We commend you for your willingness to invite an independent analysis, as well as for your commitment to ensuring the transparency and integrity of the NRC licensing process. We hope that this review is helpful.

Pete V. Domenici

Dr. Richard Meserve

CC: George Apostolakis, Commissioner
CC: William Magwood, Commissioner
CC: William Ostendorff, Commissioner
CC: Kristine Svinicki, Commissioner