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December 17, 2007

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Secretary
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

ATTN: Rulemakings and Adjudication Staff

Subject: UniStar Nuclear Energy Comments on "Consideration of Aircraft Impacts for New Nuclear Power Reactor Designs; Proposed Rule," 72 Federal Register 56287 (October 3, 2007) RIN 3150 – AI19

UniStar Nuclear Energy (UNE) supports the NRC's efforts to address aircraft impact hazards at new plants and appreciates the opportunity to comment on the proposed rule regarding "Consideration of Aircraft Impacts for New Nuclear Power Reactor Designs," published in volume 72 of the Federal Register (FR), page 56287, on October 3, 2007.

UNE has participated in the development of and generally endorses the comments on this rulemaking that are provided by the Nuclear Energy Institute (NEI). UNE offers the following additional comments on the proposed rulemaking.

UNE agrees with the NRC that the proposed rule, if adopted, would result in newly-designed power reactor facilities being more inherently robust with regard to potential aircraft impacts and therefore providing an enhanced level of protection from aircraft impacts. Such an outcome is consistent with longstanding NRC policies on advanced reactor designs, in which the NRC stated that newly-designed facilities should be more inherently robust and have enhanced safety margins. The U.S. EPR design has been developed with these principles in mind.

UNE also recognizes that public support for new nuclear power reactors is strongly tied to the safety of the facility. In light of the events of September 11, 2001, the nuclear industry must address the public's concerns with aircraft impacts at new nuclear power plants. This important principle is key to public support for new nuclear. UNE's ability to reliably produce power with low carbon emissions and contribute to the country's energy security therefore hinges on a successful demonstration of the security of the nuclear energy infrastructure with respect to, among others, aircraft impacts. Addressing aircraft hazards at the design phase—before any plants have been built—rather than in individual combined license applications, will also increase standardization and thus operational efficiencies across the fleet. Resolving these issues at the design stage will also reduce licensing uncertainty for the design vendors and combined license applicants. For all of these reasons, UNE supports the NRC's efforts to address aircraft impacts as part of the plant design.

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Public acceptance of new nuclear requires a clearly-articulated standard for evaluating designs to ensure not only a consistent level of safety, but also a consistent method for evaluating their safety. UNE therefore urges the NRC to adopt a clearly-articulated standard that is transparent and scrutable to members of the public. Under the proposed rule, an applicant must describe "design features, functional capabilities, and strategies that avoid or mitigate, to the extent practicable, the effects of the applicable aircraft impact with reduced reliance on operator actions." The primary shortcomings of relying solely on the practicability standard are its ambiguity and subjectivity. An ambiguous standard that fails to convey the extent to which a design addresses aircraft impacts may not engender public confidence in the safety of new reactor designs. Similarly, an overly-subjective standard may prove difficult to apply consistently given differing designs with various approaches to evaluating aircraft impacts.

Accordingly, UNE recommends that the NRC adopt the following functional acceptance criteria:

(1) Demonstrate that the reactor core remains cooled or the containment remains intact, and

(2) Spent fuel cooling or spent fuel pool integrity is maintained.

For designs that meet this standard, there would be no need to perform the evaluation currently required by proposed section 52.500(c). Instead, the application should simply describe how design features, functional capabilities, and strategies avoid or mitigate the effects of the applicable aircraft impact with reduced reliance on operator actions.

UniStar is also concerned that the public will not understand the distinction that the NRC is attempting to draw between new plants that reference previously-certified designs and new plants that are subject to the proposed rule. The NRC and industry have increased public knowledge and therefore, acceptance of nuclear power after many difficult years. As a result of this increased knowledge, members of the public likely consider protection against a clearly-understood scenario (such as an aircraft impact) to be an important component of any new reactor design. Likewise, the public expects a credible and unambiguous regulator to approve those plant features that are important to safety, including those features that offer protection in the event of an aircraft impact. The public simply will not understand the NRC's logic in distinguishing between previously-certified designs and new plants that are subject to the proposed rule, particularly when no new plants have been licensed or constructed. By requiring only a limited subset of anticipated new reactors (less than half of the currently announced plants) to address aircraft impacts as part of the design, the NRC's proposed rule could undermine public confidence in new nuclear power plants.

Further, some designs, including the EPR, have made the incorporation of significant safety and security features, including those that address aircraft impacts, an objective of the design process in order to ensure greater plant reliability and instill public confidence in this next generation of nuclear plants. This can best be accomplished through a disciplined process imposed by regulation and subject to NRC review. Accordingly, UNE considers that the NRC should clearly and unequivocally apply the proposed rule on the treatment of aircraft impacts to all designs referenced by a combined license applicant and to all new plants.

In addition to the NRC's inherent authority to promulgate rules under the Atomic Energy Act, 10 CFR 52.63(iii), (vi) and (vii) authorize the NRC to impose new requirements on existing design certifications in the present circumstances. Specifically, applying proposed 10 CFR 52.500 to all designs referenced by a combined license applicant would contribute to increased standardization of the certification information. Because no new plants have been constructed and no combined licenses referencing a previously-certified design have been issued, application of proposed 10 CFR 52.500 would increase standardization by avoiding the need for individual combined license applicants to address aircraft impacts (either in individual licensing proceedings or as part of compliance with proposed 10 CFR 73.55). Along these lines, consistent application of the proposed rule would also reduce unnecessary regulatory burden by resolving aircraft impacts issues in a single licensing review for the certified design rather than in numerous combined license reviews. The change would also substantially increase overall safety and security of the design under the same cost-benefit calculus that applied to other design certification applicants.

If you have any questions or need additional information, please contact Rod M. Krich at 410, 739-4068.

Respectfully,

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