



April 13, 2018

Ralph Hill, Chair
ASME Code Section III
9037 Firebird Drive
Las Vegas, NV 89134-8503
Email: hillr@asme.org
Dear Mr. Hill,

I wanted to send a short letter to express TerraPower's support of Section III, Division 5, Rules of Construction for High Temperature Reactors, and the NRC's effort to assess and to endorse a set of rules for advanced non-LWR reactors. Although there are still some gaps in Division 5, I appreciate the efforts the ASME BPV Code Committees are taking to close those gaps. It is very valuable to the Advanced Reactor Community to have this Division of the code for aid in the design of high temperature reactors including molten salt and sodium fast reactors. It will be critical to the success in licensing of our advanced reactor designs including the MCFR and the TWR300. It allows us to take into account time dependent phenomena such as creep, creep-fatigue and relaxation to more accurately analyze the performance of the reactors.

TerraPower recognizes that there are opportunities to optimize certain technical aspects of Division 5. Areas of particular interest to TerraPower include extending material allowables from 300,000 hours to 500,000 hours for Division 5 materials (304H, 316H, Alloy 800H), adding new materials (Alloy 617 and Alloy 709), improving and simplifying existing analysis methods, and developing rules for clad and refractory lined components for molten salt reactor applications.

I would firmly endorse the NRC developing a regulatory guide that references this Division of the code as guidance for High Temperature Reactors.

Sincerely,

A handwritten signature in black ink, appearing to read "Tara Neider".

Tara Neider
Sr. VP Fuels and Project Development

cc: Brian Thomas, USNRC
John Monninger, USNRC
Sue Lesica, USNRC
Sam Sham, Argonne