

My Concern is the New ICC Solicitation

- A new ICC solicitation was posted.. on March 2, 2010
 - The lab announcement
http://www.sc.doe.gov/grants/LAB10_286.html
 - The non-lab announcement
https://www.fedconnect.net/FedConnect/PublicPages/PublicSearch/Public_Opportunities.aspx
- The solicitation was quite different than previous ICC solicitations. It states:
 - "The ICC program explores improved pathways to practical fusion power by addressing critical problems that hinder the tokamak concept, such as plasma disruption, heat load on internal components, and operational and maintenance complexity.
 - "Compared to previous ICC solicitations, an increased emphasis will be placed on those proposals that have the most promise of making such linkages and addressing the issues. Overall, support of research that can best help deepen the scientific foundations of understanding and improve the tokamak concept is an important focus area of this Announcement".

The New ICC Solicitation

- Based on the 1999 FESAC and the IPPA 2000, past ICC solicitations were actually aimed at innovative confinement concepts at the concept exploration level, with an intent of moving some to the POP level.
- This new solicitation does not ask for research on innovative confinement concepts at all
 - It solicits research in support of problems that tokamaks face.
 - It has allowances for 3D optimization (read stellarators) and symmetric tori (read spherical tokamaks).
 - FRC's, spheromaks, rotating mirrors, IEC, levitated dipole, and any other CE level future non-tokamak ICC all feel quite left out by this call.
 - However, it broadens the scope to possibly include materials science research relevant to plasma/wall interactions and tokamaks, thereby diluting any semblance of a real ICC program.

Conclusions

- In my opinion, this call exemplifies what the COV report just presented to FESAC suggests should not be done in a program solicitation (by having such a diffuse call).
- Solving tokamak issues with the 5% non-tokamak part of the US fusion research program budget won't really effect our tokamak research, but it will effectively eliminate this area of research in which arguably the US leads (and has always) lead the world.
- A fusion reactor is still 50 years out. Now is not the time to eliminate Concept Exploration level research into alternates. The ICC solicitation needs to be rewritten, and the ICC community needs to be consulted in this apparent decision.