

**Charge to the TAC
10th meeting at ESS HQ, Lund
November 5-6, 2014**

During the Summer of 2014, the ESS project has effectively entered into its construction phase. Civil Engineering has visibly started and the pouring of concrete has begun. This milestone has been met on time and comforts the credibility of the overall project schedule. This major achievement was properly celebrated with the Ground Breaking event on September 2 and the Foundation Stone ceremony on October 9.

The other activities in the project have to keep pace with the progress of the Conventional Facilities, providing the necessary requirements and preparing for construction of equipment.

During its 10th meeting, on November 5-6, 2014, the ESS Technical Advisory Committee will be informed about the follow-up of its previous recommendations. Subjects requested during the previous meeting will be presented.

Our first question to the Committee is therefore:

Have the recommendations and concerns of the previous TAC meeting been addressed adequately?

More specifically, we would like the ESS Technical Advisory Committee to address the following questions:

- concerning the **Accelerator**:

a1) Is the design and prototyping of the spoke systems sufficiently well advanced to permit the timely construction of the spoke section of the ESS linac?

a2) Does the committee concur with the recommendations made for collimators at ESS?

a3) Are the plans for modulators for the ESS RF sources feasible and does the committee have specific recommendations regarding the modulator development performed at Lund University in collaboration with ESS?

- concerning the **Target:**

t1) Is the newly formulated moderator and reflector mechanical configuration viable? Does it incorporate adequate flexibility to allow for future innovations in this area?

t2) Is the approach that we are using to arrive at a neutronically optimized moderator/reflector reasonable?

t3) Is the updated monolith design approach incorporating a reduced diameter, smaller vessel, and support structures reasonable?

t4) Does the committee concur with the projects position that a water-cooled, rotating W target represents a technically viable backup approach?

t5) Were recommendations from the 9th TAC meeting adequately addressed?

t6) Comments on progress towards completion of Preliminary Design in all areas highlighted at the meeting are most welcome.

- concerning the **Integrated Control System:**

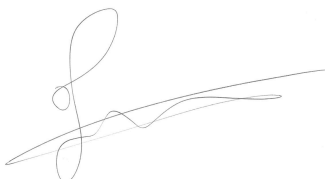
c1) Is the proposed HW strategy sound considering the timescale of the project? Does the proposed solution provide the required performance with a reasonable cost?

c2) Is the scope of Conventional Facility controls integration properly defined? Are the work package activities properly derived from and aligned with CF planning?

c3) Is the scope of Personnel Safety Systems for ICS appropriate? Are the technical solutions proposed for implementing PSS appropriate?

The Committee is encouraged to provide suggestions/comments and recommendations on all these subjects as well as on any other it would find relevant.

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