The next Liquid Lithium Divertor (LLD) Design Meeting will be 5/10/07, at 1:30 pm in B-252

NSTX

Dial-in Remote Participant Information:
The phone number is 1-866-606-4717, Participant access code 9705980.
Copies will be in the NSTX>Drag&DropDirectory>LLD Design Meetings>dated folder.

AGENDA FOR 5/10/07

Liquid Lithium Divertor CHI Implications - R. Raman (U. Washington)
A Very Short Summary of CDX-U Lithium Regimes - R. Majeski
Thermal Regime of LLD - L. Zakharov

WORKSHOP DISCUSSIONS HELD PREVIOUSLY
Basic Scope of Sandia Effort - R. Nygren, 2/27/07
NSTX , SNL, UCSD LLD Collaboration - H. Kugel, 2/27/07
Progress Toward Design Goals and the Process - H. Kugel, 3/09/07
Physics Considerations for the Design of the LLD for NSTX - R. Maingi (ORNL), 3/9/07
Liquid Lithium Divertor 0-D Pumping Projections and Sensitivities - R.Maingi (ORNL), 4/03/07
Near Term Plans - H. Kugel, 4/24/07
Particle Flux and Recycling Analysis in NSTX - V. Soukhanovskii (LLNL), 4/24/07
Lithium Chemistry in NSTX - J. R. Timberlake, 4/24/07
Fast Ion Loss to NSTX Divertor Region and Implications for the LLD - D. Darrow, 5/02/07
Recycling and Particle Fluxes in NBI-heated H-mode Plasmas - V. Soukhanovskii (LLNL), 5/02/07

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Proposed Liquid Lithium Divertor Design Goals

- ## Proposed Physics Design Goals for the LLD
  - 1) Achieve NSTX inductionless current drive density control capability in the range
    - Option 1
      - $n_e = 3 \times 10^{19}$ m^{-3} at Ip = 700 kA (n_e/n_{GW}) ~0.4-0.5
        [from Previous 5 Yr plan, ISD scenario]
    - Option 2
      - $n_e \sim 5 \times 10^{19}$ m^{-3} at Ip = 700 kA (n_e/n_{GW}) ~0.65-0.8
        [from more recent estimates (~15-25% decrease in n_e from recent exps)]

  - 2) Allow for n_e scan capability in H-mode (e.g.,~ x2)

  - 3) Exhaust 7.5 MW NBI incident power for 2 sec (15 MJ of energy)

- ## Proposed Geometry Design Goals for LLD
  - For SNL by April 15, 2007 need to specify the following LLD parameters:
    - 1) Width
    - 2) Major Radius R
    - 3) Number of segments, gaps between segments, and clocking of segments $(\phi_{min}-\phi_{max})$
    - 4) Orientation (horizontal or sloped) and nesting (on tile or on copper PP)