

## Research Operations Division Boundary Physics (*H. Kugel*)

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### ◆ Lithium Evaporators

- ▶ 2 filled units will be emptied on Fill Stands by end Nov.
- ▶ All 4 LITERs & drives and control system will be mothballed
  - Possible use in lithium development lab. during outage
- ▶ Baseline plan is to deploy dual LITERs on Day 1 of Upgrade

### ◆ LLD

- ▶ In vessel parts and internal wiring will be left in place initially
  - Plan for NSTX-U Day-1 PFCs remains under development
- ▶ External cables and control racks to be removed and saved in UDARM

### ◆ Centrifugal Lithium Granule Injector will be safely stored

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### Diagnostics (*R. Kaita, B. Stratton*)

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- ◆ Now completing some diagnostic wrap-up tasks prior to removal
  - ▶ MSE-LIF measurements with gas-filled torus and PF5 energized with bakeout power supply
    - Successfully completed yesterday
  - ▶ Neon glow for FIDA calibrations
  - ▶ MPTS stray light measurements and checkout of beam dump window

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### RF systems (*J. Hosea*)

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- ◆ Antennas will be left in place
- ◆ Protective structures will be built for the feedthroughs
- ◆ Transmission lines near machine will be boxed and stored outside NTC
- ◆ Plan to mock up the antenna on the RF test stand
  - Understand and improve the voltage limit
- ◆ Sources will be updated
  - ▶ Much of the electronics dates to late 70s and early 80s.
  - ▶ Obsolete power tubes will be replaced to the extent possible.
- ◆ Aim for maximum reliability of the entire system

## Research Operations Division

### Physics Operations (*S. Gerhardt, D. Mueller*)

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- ◆ Aim to provide continuing capability to upgrade and test control system
  - ▶ Need real-time data stream to work
  - ▶ Relocate 4 VME crates (Cat. 3, Cat. 4, RF, Gas) from test cell to Junction Area, and fiber-couple to FPDP system
- ◆ Remove real-time  $I_p$  analog calculator electronics from both Cat. 3 and 4 racks
  - ▶ Fiber optic transmitters and receivers
  - ▶ Modify calculator to accommodate new coils and modified vacuum chamber resistances
- ◆ Attempt to complete (post) calibration of gas system before final vent