COSTING ISSUES:

1. Define system boundaries (controls, RF, supports, magnets systems and instruments).
2. Outline what is included and excluded from the vacuum system estimates. For example, include labor to leak check a component but exclude the cost of the leak detector.
3. Use the same labor rates in all estimates (NLC Project Planning Web page).
4. Use the same ED&I, B&H and labor definitions (NLC Project Planning Web page).
5. Sum commonly used items across areas and assign a cost to each item. Use the same cost for the same part across areas.
6. Roll up revised cost estimates into vacuum system summary sheets.

CONTROLS AND VACUUM INTERFACE:

1. Controls and vacuum representatives to agree (by joint sign off) to specifications and requirements for the purchase of valve, pump and gauge controllers.
2. Controls and Vacuum representatives will together develop interlock logic and diagnostic requirements for each area.

SYSTEM DESIGN:

1. Write and review vacuum system requirements for each area.
2. Agree to use a form of SLAC Technical Specifications for Vacuum Systems. To be revised and updated for NLC.
3. Agree to use and then write specifications for generic items such as ion pumps, gauges, and valves.
4. Agree to, and define standards for connectors, flanges, and processing equipment.
5. Approve of and write consistent guidelines for vendor requirements in order to fabricate vacuum components.
6. Review and make recommendations for the use of environmentally friendly “green” cleaning.
NLC VACUUM TEST

J. Weinberg

SCHEDULE:

1. Review schedules, with area managers, with respect to vacuum related tasks.
2. Establish a schedule for the completion of vacuum system specifications, in preparation for design, fabrication and procurement.
3. Establish a schedule for vacuum production/processing facility.

RELIABILITY:

2. Review and comment on mechanical vacuum system Failure Mode and Effects Analysis (FMEA) by Carl and Julia.
2. Prepare vacuum electrical FMEA.
3. Address reliability issues raised by FMEA.