"General Approach"

Mike Palrang showed drawings of the ASSET area of the SLC, plus preliminary sketches of the fit of RDDS1 plus its structural support into this area. There are vertical supports in ASSET that the RDDS1 support will attach to, and it needs to clear a small box beam on top of the light pipe. There is room above the structure for a vacuum pump if required, although there was no pump during the DDS3 test (the ports were capped off). (If a pump is required, it will have a 90° bend to eliminate the possibility of material from the pump falling into the beamline.) Mike plans on doing some additional work to show the connections between the ASSET vertical supports and the present circular strongback tube (design concept for the NLC) that surrounds RDDS1. Gordon is several months away from designing a simple support for RDDS1 in ASSET, needed because of the desire to compare CMM measurements before and after installation and removal.

The balance of the meeting was spent discussing the comprehensive list of criteria for the support of the accelerator structure that have to be met or optimized in the NLC - thermal stability, long-term mechanical stability, distortionless RF, water, and vacuum connections, fabrication and assembly cost, and installation cost. Mike Neubauer is well-along in listing these items, and Mike will attempt to circulate what he has for comments and additions by the next meeting.

It was tentatively agreed that two options for the support of the structures will be evaluated against Mike's list of criteria. The first is the baseline design used in the CD-1 model of the NLC: one 600MW RF feed per girder, three strongbacks on a girder, one structure inside each pipe-like strongback. The second is Gordon's idea of one set of ground supports for each accelerator section, effectively eliminating the girder. The expectation is that a comparison between these two approaches will tell us if we are better off with multiple structures per girder (possibly not three), or with no girder at all and doing everything structure by structure.

We also need to settle the semantics by which we address the functional assemblies between the accelerator structure and the concrete floor provided by Conventional Facilities. The most confusion seems centered around the word "strongback".

Minutes by John Cornuelle