

What is to be included in the Detailed Baseline Design Report (draft)

April 29, 2010

The detailed baseline design report will be addressed to the following readers:

- 1) ourselves and accelerator colleagues to be confident that physics aims can be obtained,
- 2) particle physicists active in other facilities, who are experienced, discerning and possibly supportive when convinced,
- 3) physicists in different fields, who may be cooperative or critical,
- 4) government or funding agency people who may not read details but request experts to examine.

The submitted LOI's are good starting bases for the detailed baseline design, describing overall features of the proposed detector concepts. Each LOI has physics motivation, basic strategy of the design, component description, status of component R&D, physics performance for the benchmark reactions, time schedule and rough cost estimation. Some options are left to be decided after more complete R&D and performance tests. The detailed baseline design needs to be advanced from the LOI to a more solid level including pre-engineering detailed designs of integration and stability requirements to convince the feasibility and performance of the detector.

The length should not be too long, maybe 100 ~ 150 pages.

The items to be included in the BDB are listed.

Physics motivation and basic design strategy to reach the goal

Detector concept and baseline design

The description of each component including its feasibility and observed performance

Mechanical construction including support structure (*)

Installation scheme into the IR and with the accelerator

Push-pull mechanism and performance,

Physics simulation on the benchmark reactions

Cost estimation

(*) Better to have it as precisely as possible, but how detailed it should/can be needs to be discussed.